



Capacity Building in Maritime Archaeology: The Case of the Eastern Mediterranean (Cyprus, Lebanon and Egypt)

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Published online: 15 October 2019

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Abstract

This paper discusses maritime archaeological resources in three eastern Mediterranean countries, where the discipline is relatively young: Cyprus, Lebanon, and Egypt. Emphasis is given to capacity building, through discussion of good practice and constraints that can be documented during the last two decades on diverse levels: education and training, governance, legislation, and public awareness. Although the three countries share cultural and socio-political backgrounds, the vast majority of the activities described in this paper are country-specific and too recent for their impact to be evaluated. Therefore, the authors place the focus on the processes rather than the results. Through a comparative analysis of local maritime archaeological histories and contemporary realities, they distinguish some key factors for the sustainability of maritime archaeological capacity building: locally based administrative and scholarly institutions, external funding, and public archaeology programmes to enhance appreciation of the maritime cultural heritage by local communities. It is also demonstrated that wars during 1970s and 1990s, in Cyprus and Lebanon respectively, have created unfavourable conditions for the development of maritime archaeology, whereas in Egypt emblematic underwater projects, international synergies and funding, as well as locally-based research and educational institutions, seem to have created a more responsive socio-political landscape for building capacity in maritime archaeology.

Keywords Capacity building · Maritime archaeology · Eastern Mediterranean · Public archaeology · Underwater cultural heritage

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Introduction

According to the United Nations Committee of Experts on Public Administration (Report E/C.16/2006/4, hereafter UN Report), capacity development (or capacity building) is considered as one of the fundamental concepts and terminologies of governance and public administration. It is defined as “the processes by which individuals, organizations, institutions and societies develop abilities to perform functions, solve problems and set and achieve objectives” (UN Report: 7, § 33). The United Nations Development Programme (UNDP) also recognizes that capacity building is a long-term, continuing process, in which diverse stakeholders participate such as ministries, local authorities, non-governmental organizations, professional associations, academics and others.

Although similar definitions usually refer to a range of production domains, such as agriculture or industry (Eade 1997: 2–3), building capacity is also essential for cultural heritage management, especially as far as its maritime component is concerned (Satchell and Palma 2007: 95; Maarleveld et al. 2013: 163–176). Since the beginning of the twenty-first century, an increasing number of publications and research projects, training seminars and field schools, as well as new university programmes, have contributed to the enhancement of maritime archaeology in academia, public archaeology and cultural heritage studies. Apart from the work of archaeologists themselves, other factors have also helped to this end. First, the industry of recreational and technical diving has expanded rapidly in the last few decades, making dive training accessible to a wider public. Second, several EU initiatives have supported the development of research infrastructure and encouraged networking activities relating to underwater cultural heritage between institutions or countries within Europe, but also with neighbouring countries. A successful example was the SPLASHCOS project (Submerged Prehistoric Archaeology and Landscapes of the Continental Shelf), the results of which were recently published (Flemming et al. 2017). For the region of eastern Mediterranean, in particular, initiatives like the ones undertaken by the UK-based Honor Frost Foundation (HFF),¹ have provided new opportunities for maritime archaeology. Despite these favourable circumstances, however, competent human resources remain hard to find in many countries, possibly due to the fact that individuals and organizations require a substantial timeframe to obtain, improve, and retain skills and knowledge.

Countries in the eastern Mediterranean, such as Cyprus, Lebanon, and Egypt, provide very instructive examples in this respect. Their rich maritime cultural heritage, coupled with prolific related literature and strong archaeological traditions, where the key role of the sea has always been appreciated, contrast with the fact that maritime archaeology has not been fully embedded yet into local archaeological practice. This paper focuses on capacity building as a major component of this process, which is directly linked to diverse aspects of maritime cultural heritage, from academic research to public awareness.

The Background: Maritime Archaeology in the Twentieth Century

The initiation of underwater field projects by foreign teams, prior to any local initiatives for building capacity in maritime archaeology, is a common phenomenon in all three countries under discussion. In order to place recent developments in their context, however, it

¹ <https://honorfrostfoundation.org> (accessed 9/2019).

is necessary to explain how local archaeological institutions responded to the momentum that maritime archaeology gained internationally, during the second half of the twentieth century (Bass 2011).

In Cyprus, the advent of maritime archaeology coincided with the first years of the island's independence in the 1960s, when, thanks to an archaeological policy that encouraged foreign missions, several underwater projects were fostered. Between 1960 and 1970 five missions from different countries (Britain, Poland, Israel, Sweden and USA) surveyed different sites in the completely unexplored waters of the island, mostly harbours and anchorages (for an overview, see Demesticha 2018: 64–67; also Leonard 2008). Between the years 1968 and 1969, the University of Pennsylvania Museum of Archaeology and Anthropology excavated the Kyrenia shipwreck (Katzev 1974: 177; Swiny and Katzev 1973). This project marked a milestone in the history of nautical archaeology (Steffy 1985, 1994: 42–59) and left a distinctive imprint on Cypriot archaeology. It attracted unprecedented publicity and introduced the then nascent discipline to the archaeological community and the general public (Harpster 2015). When Turkey invaded the island in 1974, this significant momentum was lost (Steffy 2012: 99), but the Kyrenia ship itself became so emblematic that it grew into a national symbol in the Republic of Cyprus (Dimitriou 2016: 68). Most importantly, archaeology on the northern part of the island became subject to the regulations in UNESCO's Convention for the Protection of Cultural Property in the Event of Armed Conflict, and the Hague Convention of 1954. Sparse and disputed activity, lack of awareness and neglect of maritime cultural heritage ever since, represented only some of the results (Harpster 2008). For the following three decades in the rest of the island, priorities were placed by the Department of Antiquities on the creation of archaeological parks on land that would attract more visitors and thus support tourism-led economic growth along with the country's reconstruction. Underwater sites were not part of this plan, although teams from abroad kept coming to the island and working on maritime sites: surveys were conducted along Cape Kiti (McCaslin 1978, 1980; Engvig and Beichmann 1984), from Maa to Lara Peninsula on the west coast (Giangrande et al. 1987), as well as at the harbour of Paphos (Hohlfelder 1992, 1995; Leonard et al. 1998). The French school at Athens, under Jean-Yves Empereur, excavated the ancient harbour of Amathous (Empereur and Verlinden 1986, 1987; Empereur 1995), which was the first and remains the only full harbour excavation on the island thus far. Despite this activity, no essential steps were taken before 2004 towards the creation of any institutional organization or infrastructure that would aid in introducing maritime archaeology to Cypriot mainstream archaeological practice.

In Lebanon, renowned homeland of the ancient Phoenician seafarers (see Quinn 2018: 1–12), it was the harbours of Tripoli, Byblos, Sidon and Tyre that first attracted the curiosity of early modern European travellers from the seventeenth to the nineteenth Centuries (Semaan 2018: 79–83). When Lebanon fell under the French Mandate (1923–1946) in the early twentieth century, the *Service des Antiquités* was created, thus reinforcing the already established intellectual ties between French scholars and the Jesuit-founded Faculty of Oriental Studies at the Université Saint Joseph in Beirut. Within this political context, a prominent Jesuit missionary and aviator, Father Antoine Poidebard, instigated underwater archaeology, while simultaneously applying the techniques of aerial photography to his study of ancient harbours (Denise and Nordiguian 2004: 19, 22; Poidebard 1937, 1939; Poidebard and Lauffray 1951; Viret 2000, 2004). From the 1950s, British pioneer of underwater archaeology, Honor Frost, studied several coastal and submerged sites in Lebanon. Her research was halted with the start of the Lebanese Civil war (1975–1990), but she was able to resume her work during the post-civil war years until her passing in 2010 (Semaan

2018: 87–93). Her research concurrently laid the ground for geomorphological investigations at several ancient harbour cities, mainly led by French and British specialists (see e.g. Carayon et al. 2011; Marriner 2009). Frost also trained a number of Lebanese maritime archaeologists who still actively pursue coastal and underwater surveys and excavations locally. However, as is also the case in Cyprus, governmental and academic infrastructure to develop and support the research and management of the maritime archaeological resource in Lebanon is still lacking.

In Egypt, famous underwater sites, such as the Pharos and Abu Qir Bay, were documented by early nineteenth century travellers (Abd Elmaguid 2001: 1377). Historical attempts of salvaging underwater sites in Egypt can be traced as far back as 1849–1850 (Sāmī 1915: 25). The first scientific record of underwater cultural site was undertaken by Europeans, working for the Egyptian government in non-archaeology related positions, such as A. Malaval and G. Jondet, who investigated different sites in Alexandria at the turn of the twentieth century (Jondet 1921; Morcos 2000: 36–37; Abd Elmaguid 2001: 1374; 2012: 195). The first Egyptian attempt to locate, examine and salvage underwater cultural heritage was in 1933 by Prince Omar Toussoun, at Abukir (Toussoun 1934: 342–354; Morcos 2000: 35; Abd Elmaguid 2012: 195). Between 1961 and 1984, a diver named Kamel Abul-Saadat rediscovered and mapped the underwater sites of Qait Bey Fort, and Abu Qir Bay in the Eastern Harbour. In 1968, UNESCO asked Honor Frost to team up with him and Vladimir Nestroff, a French geologist, to conduct an underwater inspection of the archaeological remains reported by Abul-Saadat (Morcos 2000: 43–44; Halim 2000: 46–53; Abd Elmaguid 2012: 195). During the 1990s, a large number of underwater missions were conducted in Egypt by European and American institutions: Institut Européen d'Archéologie Sous-Marine (IEASM), Centre d' Études Alexandrines (CEAlex), Institute of Nautical Archaeology (INA), and Hellenic Institute of Ancient & Mediaeval Alexandrian Studies (HIAMAS). Many continue to work along various stretches of the Alexandrian coast (see e.g. Abd Elmaguid 2012). This momentum of underwater projects, led by foreign institutions in Egypt, fostered the establishment of the Department of Underwater Antiquities (DUA), which is discussed further in this paper.² Since its establishment, DUA has conducted underwater surveys and excavations of a number of sites on both Egyptian coasts (the Red Sea and the Mediterranean), as well as the Nile (Darwish and Abd Elmaguid 2002; Abd Elmaguid 2012).³

Building Capacity in the Twenty-First Century

Capacity building in diverse disciplines and professions has social, economic, political, and practical aspects, all associated with societal and economic development (Eade 1997: 3). Archaeology, no longer just an academic discipline, has become part of the state planning process (Willems 2009: 89–90), and thus building capacity should be among its prerogatives. Maritime archaeology, in particular, requires both theoretical knowledge and specific practical skills, at both individual and institutional levels. Methods and techniques of underwater fieldwork, such as scuba diving and/or the operation of equipment used in marine remote sensing surveys, are essential skills to acquire, for young professionals,

² See Governmental Agencies and Legislation section, below.

³ A full list of underwater missions in Egypt can be found at https://www.academia.edu/6104586/Underwater_archaeology_in_egypt (accessed 9/2019).

public servants and other stakeholders wishing to specialise in maritime archaeology. Accessible training is imperative for a society that expects well-educated archaeologists to staff governmental agencies and research bodies, able to protect tangible and intangible maritime cultures, organise and/or conduct extensive surveys in order to map underwater antiquities, and prioritise with caution invasive processes like excavations (Maarleveld et al. 2013). Public servants should also be expected to understand the diversity of maritime cultures and their associated material remains, which extend beyond underwater sites (Khalil 2008: 86). All these criteria can be a challenge, particularly in legislative and political environments that place low priority on heritage preservation, such as is the case in the three countries under study. Nonetheless, properly trained officials who are mindful of international trends and sensitive to local pressures (Jamieson 2006: 153), are more likely to effectively tackle pragmatic problems and convince institutions to invest in long-term or systemic changes. In this respect, development is directly related to capacity building, at inter-related levels: individual, institutional and societal (UN Report: 7 §33–35).

Education and Training

Education and training play a key role in the capacity development process. Egypt was the first of the three countries that recognized this and took measures to enhance its human resources. In 2001, the Egyptian Ministry of Higher Education funded a scholarship for a postgraduate student of archaeology to study maritime archaeology at the University of Southampton, UK, while at the same time European universities awarded grants to archaeologists working at the Supreme Council of Antiquities (Khalil 2008: 87–88). A few years later, in 2009 the Alexandria Centre for Maritime Archaeology & Underwater Cultural Heritage (CMAUCH) was established as part of a European Union funded project under the EU-Tempus III Programme, at the University of Alexandria (<http://www.cmauch.org>, accessed on 30 December 2018). At about the same time, an initiative from the private sector had an equally significant impact on Cyprus: in 2007, the THETIS Foundation, a private non-profit organization, funded a Chair of Maritime Archaeology in the Department of History and Archaeology, University of Cyprus, with the intention to introduce maritime archaeological education at a higher level on the island (Demesticha 2018: 67–68).

CMAUCH at the University of Alexandria offers a Graduate Diploma and a Master of Arts in Maritime Archaeology. It thus provides opportunities for professionals to acquire the necessary skill-sets, and for students to obtain the basis for a professional career in maritime archaeology (Khalil 2008: 88–89): by 2019, CMAUCH had educated more than 68 students from different academic backgrounds, including inspectors at the Egyptian Ministry of Antiquities. Furthermore, it offers a number of local workshops and training courses including scientific CMAS (Scientific Diver program and Advanced Scientific Diver program) diving qualifications.⁴ Despite these diverse activities, there is only one permanent staff member at the University of Alexandria specializing in maritime archaeology, which seriously limits its potential for growth. Moreover, CMAUCH graduates who wish to continue their studies at doctoral and post-doctoral levels have to seek universities outside the country, as there are no PhD programs in maritime archaeology at any Egyptian university (Fig. 1).

⁴ <http://www.cmauch.org/non-academics/> (accessed 9/2019).



Fig. 1 Students and Researchers of CMAUCH during the HFF funded survey of Marsa Bagoush (August 2016). Photo by Emad Khalil; courtesy of the Alexandria centre for Maritime Archaeology—Alexandria University

At the University of Cyprus, courses on maritime archaeology were first introduced at undergraduate level, aiming less at exclusively training students as maritime archaeologists, and more at conveying a general appreciation and understanding of maritime archaeology by students who may pursue further research in the field or be future decision makers in the public sector (for a similar approach at Flinders, Australia in the 1990s, see Staniforth 2008: 94). In addition, practical training in maritime archaeological skills and techniques, also funded by the THETIS Foundation, was introduced to the undergraduate curriculum for three consecutive years (2007–2009), along with class-based instruction. Students, who chose an elective course entitled ‘Methods and Techniques of Underwater Archaeology’, were offered diving courses free of charge, in addition to 2 weeks in the field, where they were trained in underwater archaeological skills. One such fieldschool was organised at Dreamer’s Bay, Akrotiri in 2007 (see Leonard and Demesticha 2004), and two more at Cape Kiti in 2008 and 2009 (Demesticha 2015). Although this was a successful and inspiring training exercise, funding was discontinued after 2010, because all available resources had to be funnelled into the Mazotos shipwreck excavation, the site that was to become the key focus of maritime research in the Department (Demesticha 2010). In an effort to meet the constant need for trained field archaeologists, however, in 2014 the Department of History and Archaeology introduced a Master’s programme, with an emphasis on methods, techniques and the theoretical background relating to archaeological fieldwork, regardless of the environment; hence the programme’s title ‘Field Archaeology on Land and under

the Sea'. A programme exclusively on maritime archaeology was not feasible, given the low numbers of students, and the then limited prospects of the Department of History and Archaeology to hire specialised academic staff.

In the case of Lebanon, building capacity through education has been generally done in an intermittent manner, whereas academic educational programs in maritime archaeology are non-existent at both undergraduate and postgraduate levels. A few initiatives are worthy of mention, however fragmentary they remain. In 2006, the Said Foundation,⁵ operating through the local British Council, offered the first full scholarship to a Lebanese archaeologist for her to attend a Masters program in Maritime Archaeology at the University of Southampton. In addition, the Department of History and Archaeology at the American University of Beirut granted the Whittlesey Chair Visiting Assistant Professor to Dr. Ralph Pedersen who taught nautical archaeology courses for two years (2007–2008). A few years later, in May 2012 and at the invitation of UNESCO, employees of the Directorate General of Antiquities (DGA) and professional archaeologists attended a two-day introductory course on maritime archaeology, which was delivered by Lebanese maritime archaeologist Dr. Ibrahim Nouredine. Six of the participants were divers and were able to practice their new skills underwater. Very recently, HFF also helped establish the first postdoctoral research fellowship in maritime archaeology at the Department of Archaeology and Museology (DAM) at the University of Balamand for three years (2016–2018).⁶

The establishment of the Honor Frost Foundation in 2011 significantly contributed to providing additional opportunities for education and training in the region. Lebanese, Cypriot and Egyptian archaeology students have attended master's programmes and undertaken PhD research in maritime archaeology at the universities of Southampton, Flinders, Aix-Marseille, and Oxford, while being fully funded by HFF. Moreover, the Foundation funded field schools of underwater archaeology in order to enhance fieldwork capacity in Cyprus and Lebanon. These field schools were organized by local universities, in collaboration with the Nautical Archaeological Society (NAS),⁷ a renowned UK institution dedicated to training participants and raising their awareness of underwater cultural heritage on a global scale (for its role in education and training see Sturt 2008: 77–78). In Cyprus, field schools were part of a three-year project called *Training the Next Generation*, conducted by NAS and the Maritime Archaeological Research Laboratory (MARELab), of the Department of History and Archaeology, the University of Cyprus. The project targeted multiple audiences on the island and beyond, including early career archaeologists, archaeology students, as well as professional and amateur divers. Field schools were organised at three different sites on the island⁸: an anchorage at Xylophagou, Larnaca in 2015; the Mazotos shipwreck in 2016; and the Nissia shipwreck in 2017 (Fig. 2). A total of 18 Cypriots, including 12 archaeology students and six divers, have been trained, along with 18 participants from other countries. Although this was only a three-year programme, three local NAS trainers have been accredited who will continue delivering the courses in the future. It is also worth mentioning that a special NAS training programme for divers had been created in 2007 in the occupied part of Cyprus, in collaboration with Matthew Harpster.

⁵ The Said Foundation is a UK-based charity that offers full scholarship programs for Arab students from five countries: Lebanon, Syria, Jordan, Iraq, and the Palestinian territories, to attend the MA programs and the universities of their choice.

⁶ See <https://honorfrostfoundation.org/2019/06/20/lucy-semaan-2015-2018/> (accessed 9/2019).

⁷ <https://www.nauticalarchaeologysociety.org> (accessed 9/2019).

⁸ <https://www.nauticalarchaeologysociety.org/cyprus-fieldschools> (accessed 9/2019).

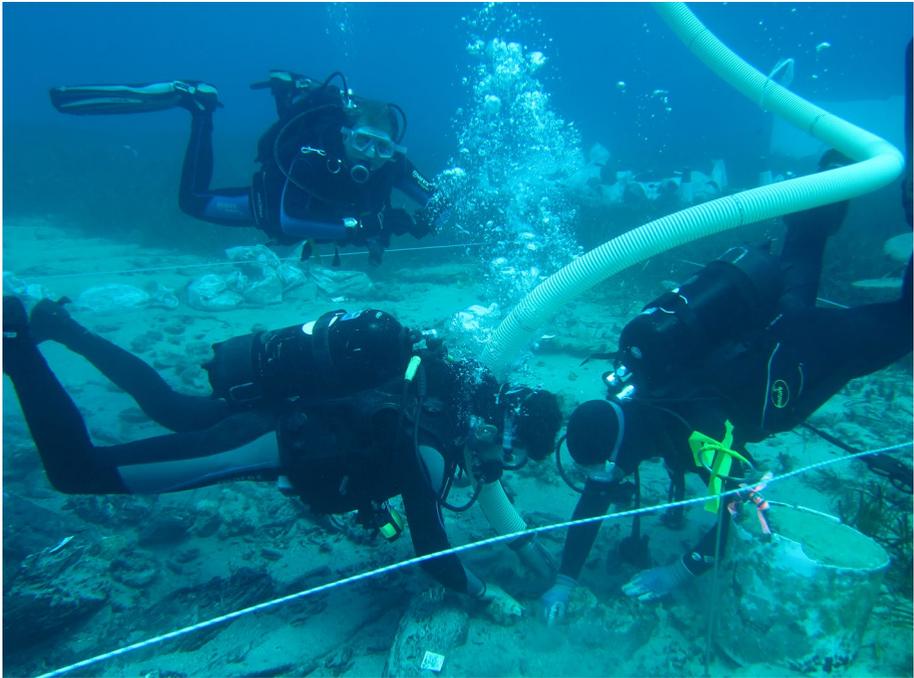


Fig. 2 Students of the University of Cyprus excavating at the Nissia Shipwreck site during the field school that the University of Cyprus organized in collaboration with the Nautical Archaeological Society (July 2017). Photo by Y. Hadjittofis; courtesy of the University of Cyprus, ARU)

Entitled *Maritime Heritage Awareness Certificate*, it aimed to educate a large community of divers to assist in the protection and preservation of maritime cultural heritage which was at risk to the rapid development along the north coast of the island (Harpster 2008). In Lebanon, two NAS field schools have been funded by HFF thus far, in September 2017 and 2018, at two archaeological sites⁹: Anfeh in the north (for the site see Panayot-Haroun Panayot-Haroun 2016; Semaan 2016; Semaan and Salama 2019) and Sidon in the south. They were conducted in collaboration with the University of Balamand and the Lebanese University-Sidon Branch, respectively. A total of 17 Lebanese, Syrian and Palestinian participants, including archaeologists, students of archaeology, divers, and employees from the DGA, underwent training in underwater surveying and recording methods. Some of these students were able to subsequently participate in a number of projects in the country.

A different model of collaboration between NAS and local institutions, was implemented in Egypt. It seems to have been the most effective one, since it resulted in a more permanent training scheme: NAS have been involved in training 18 local inspectors of the Department of Underwater Antiquities (DUA), as well as 14 archaeologists from the Arab region in 2010. Subsequently, CMAUCH being accredited as a NAS partner, has been offering these courses to Egyptian students as well as to interested divers.¹⁰

⁹ <https://www.nauticalarchaeologysociety.org/lebanon-training> (accessed 9/2019).

¹⁰ <http://www.cmauch.org/non-academics/> (accessed 9/2019).



Fig. 3 Participants from different universities and backgrounds learning the ethnographic recording of a feluka fishing boat during the maritime ethnography field school taught by Julian Jansen van Rensburg. Photo courtesy of Julian Jansen van Rensburg

Apart from NAS-type fieldschools, a maritime ethnography fieldschool was also hosted by DAM and supported by HFF, at the site of Anfeh, Lebanon, in 2014. The aim was two-fold: (1) to train Lebanese participants in methods of maritime ethnographic recording, through the maritime ethnography workshop, and (2) to document the tangible and intangible maritime heritage of the Anfeh seafaring community (Fig. 3). A total of 25 participants from four different institutions in Lebanon attended the two-day workshop. A three-week practical fieldschool followed, aimed at documenting maritime traditions of the fishermen of Anfeh (Jansen van Rensburg 2014: 7).

Governmental Agencies and Legislation

Enhancing education and training in small cultural heritage domains, such as maritime archaeology, could be more sustainable if associated with career opportunities. A step towards achieving this objective would be to introduce maritime archaeology into the local governmental agency responsible for the management of the archaeological resource. This way, maritime archaeological capacity is built at institutional level and is visible where heritage related decisions are made or policies are structured and implemented. Egypt is the only country of the three under discussion with a governmental agency dedicated to underwater archaeology; it was established as early as 1996 by the then Supreme Council of Antiquities (currently the Ministry of Antiquities, MOA). The Pharos Project, a mission of the Centre d' Études Alexandrines (CEAlex), had functioned as the first training platform for underwater archaeologists that staffed it; in 1994, four archaeology inspectors were trained in SCUBA diving there, in order to record the underwater remains of the

ancient Pharos lighthouse. A few years later, this initial team was expanded to include 14 members, and formed the core of the first Department of Underwater Archaeology (DUA) at the Ministry of Antiquities (Khalil and Mustafa 2002: 522). Gradually, the number of archaeologists increased and currently 24 trained maritime archaeologists and inspectors work at DUA; among the inspectors, nine are graduates of the CMAUCH.

In Lebanon, the staff of the Direction Générale des Antiquités (DGA) was expanded in 2006 to include, among others, two underwater archaeology specialists. They endeavoured to establish a marine archaeological centre at Tyre. Regrettably, the centre has failed to take off for a number of reasons. Still, this initiative demonstrates the key role that specialised staff can play in the formation of long-term changes, such as the establishment of a governmental institution specifically dedicated to supporting research and practice in the field. In Cyprus, there is no specific division for underwater archaeology in the Department of Antiquities (DoA). Since 2010, however, the DoA has collaborated with the University of Cyprus in establishing a Conservation Laboratory for underwater finds, located in Larnaca. This facility was created initially to treat the artefacts from the Mazotos shipwreck, but proved to be a significant investment in infrastructure and became of key importance towards a proactive approach to underwater archaeology. Since 2010, it has been upgrading its equipment and capacity, in order to meet the increasing needs with respect to the treatment of artefacts from a range of underwater archaeological projects, i.e. not only the Mazotos shipwreck. In addition, three different training activities have provided opportunities for local conservators to expand their knowledge, further develop their skills, and gain experience in different domains of waterlogged finds conservation: (i) in 2014, a team from the laboratory, supported by HFF, visited conservation laboratories in Denmark and Sweden; (ii) in 2017, an internship in York and a training seminar in Cyprus were offered to local conservators, in collaboration with the York archaeological Trust, UK; and (iii) in 2018, a workshop was organized in collaboration with, and funding from, HFF, where four Cypriot, two Lebanese and one Egyptian conservators were trained in waterlogged wood and metal conservation (pers. comm., Eleni Loizides, conservator of the Department of Antiquities, on 17/2/2019). Thus, the Cypriot DoA has increased significantly its capacity in conservation, a key aspect of cultural heritage management, although the lack of maritime archaeological officers remains a conspicuous void.

With regard to legislation, Egypt has ratified the UNESCO 2001 Convention for the Protection of Underwater Cultural Heritage, while Lebanon has accepted it.¹¹ The 2001 UNESCO Convention is an important legal tool for the protection of maritime cultural heritage but its implementation is contingent on human and financial resources in the relevant governmental agencies. Egypt ratified it on July 8th 2017, having already established DUA to administer its implementation. According to the Egyptian law (Article 5 of the Egyptian law No. 117 of 1983 on the protection of archaeological sites), not only is the Antiquities Authority (Ministry of Antiquities) the only authority responsible for supervising any archaeological work related to antiquities both on land and under territorial waters, but also all underwater archaeological missions must be accompanied by DUA inspectors.

The Cypriot Antiquities Law has been very strict regarding the protection of antiquities since the establishment of the Republic in 1960, but it was not before July 2016 (the Official Cyprus Government Gazette, issue 4956, Law no 18, pages 1609–15) that some very important regulations related to underwater antiquities were incorporated into the

¹¹ <http://www.unesco.org/eri/la/convention.asp?KO=13520&language=E&order=alpha> (accessed 9/2019).

legislative framework. What primarily triggered these changes was not the need for a better management of underwater investigations, but mostly a reaction to: (1) a looting incident that took place outside Cypriot territorial waters but was subsequently investigated in Cyprus; and (2) the extensive deep-water activity by the natural gas industry in the Cypriot exclusive economic zone. Nonetheless, it was an extremely positive step, and among others, almost all the Rules of the UNESCO 2001 Convention were adopted—albeit the Convention itself has still not been ratified.

Meanwhile, UCH has largely been neglected in legal texts governing archaeology in Lebanon as the field was initially administered according to the Law of Antiquities issued by the French Mandate authority in 1933 (Semaan, in press). It was not until 2006 that UCH was woven into the laws governing the archaeological and cultural heritage. Indeed, Lebanon adopted Law number 722 published on 22 May 2006, the Act of which is the official Arabic text of the 2001 UNESCO Convention and its Annex. It was signed by former president Emile Lahoud on 15 April 2006 (Semaan, in press). Lebanon then filed the instrument of acceptance with UNESCO on 8 January 2007.¹²

Raising Public Awareness

Community-based capacity building can play an important role as far as the public response to administrative changes is concerned. Perseverance and long-term investment are necessary for these kind of activities, and the return can sometimes be observed several generations down the line (Scott-Ireton 2007).

In developing countries, it is often questionable whether cultural heritage does in fact play a meaningful role in people's lives (Sharfman et al. 2012: 93). A general disinterest towards the significance and value of tangible and intangible cultural heritage is a common phenomenon in the Middle East, although it manifests itself in different ways. Tourism might have contributed to the appreciation of antiquities by local communities, but this often concerns more their economic and less their cultural value. In all three countries, archaeologists have tried to address this issue.

In Lebanon, Seeden (1992: 110) had argued in the early 1990s that “what the country needs most today is not primarily a new antiquities law—even the old one dating to 1933 would do, if it was applied—but the creation of a general public awareness about the real value of Lebanon's past still underground”. This still echoes the current situation today in mainstream and maritime archaeology. The perception of underwater cultural heritage (UCH) is often coloured with treasure-related legends and driven by socio-economic factors. For example, it is a common belief that the seabed holds amphorae filled with gold or that the ashlar blocks of the submerged mole in Tyre also hold gold within their structure.¹³ Moreover, professional or amateur fishermen and divers often excuse their looting of UCH as actions to safeguard artefacts by keeping them ‘safe’ in their coastal towns and cherish these findings as personal souvenirs and memorabilia (Semaan, in press). In this respect, community-based archaeology and related archaeological research can contribute

¹² <https://en.unesco.org/countries/lebanon/conventions> (accessed 9/2019).

¹³ Personal communication between Semaan and members of the maritime communities in Tyre and in North Lebanon through several years of working experience.

significantly to public awareness and hence the protection of the maritime cultural heritage resource.

To this end, a recent initiative, a tour of the ‘Maritime Archaeology Bus: Cyprus’ exhibition, was undertaken in Cyprus in the summer of 2017,¹⁴ by MARELab, in collaboration with the Maritime Archaeology Trust, UK, and with the full support of HFF. Focusing on the maritime cultural heritage of the island and the important antiquities brought to light by surveys and excavations, this was the first time that the maritime archaeology of Cyprus was presented in context. Hosted in a specially designed and equipped vehicle, the mobile exhibition toured the island and visited not only cities but also remote villages, reaching community groups that rarely had the opportunity to engage in similar cultural events before: more than 1500 pupils participated in activity sessions delivered at fourteen different schools, and approximately 2000 people visited the exhibition in eighteen different cities and villages on the island. In Egypt, DUA has been running workshops targeting children¹⁵ and public audiences at large, through the Bibliotheca Alexandrina.¹⁶ These workshops include lectures and practical work on archaeological survey methods and techniques, as well as underwater training sessions in the pool, similar to the NAS Introduction course, with foreshore and underwater archaeology courses. Moreover, since its inauguration in 2009, CMAUCH has offered NAS training to both university students and the public, and has introduced a *Maritime Archaeology Outreach Project* that includes hands-on activities at local primary schools in Alexandria. Despite the tireless efforts of both the DUA and the CMAUCH in giving public lectures at various venues, and organising workshops and trainings, no significant increase has been noticed in the interest of local communities in Egypt in their UCH.

In Lebanon, different types of public archaeology initiatives have been undertaken through investing in eco-tourism or cultural tourism. Guided underwater cultural trails were implemented at the two official marine protected areas in Tyre in South Lebanon in 2015 and the islands of al-Mina, Tripoli in North Lebanon in 2016. These protected natural reserves hold not only marine bio-diversity resources but also submerged archaeological remains. In the same country, HFF funded the production of two short educational documentaries that exemplify good practice at the archaeological sites of Anfeh and Ain el Mreisseh-Beirut.¹⁷ Freely available to watch on the internet, the documentaries aimed at breaching the gap between the academic world and the general public, and to challenge pre-conceived notions of archaeological artefacts being linked with stories of gold and treasure.¹⁸

Large-scale field projects can also have a positive impact on raising public awareness, as demonstrated by two shipwreck excavations in Cyprus, at the sites of Kyrenia and Mazotos (Demesticha 2018). Although Cyprus had not developed its own underwater archaeology team before the Mazotos shipwreck project commenced, all public awareness activities related to it received immediate and very positive reactions, due to the legacy of the Kyrenia shipwreck (see above). From 2008 onwards, 11 public lectures, three TV documentaries, three radio interviews and numerous articles in the local press about the Mazotos shipwreck project, have had a very dynamic effect that facilitated and perhaps accelerated

¹⁴ <http://www.ucy.ac.cy/marelab/en/promotion/educational-programmes> (accessed 9/2019).

¹⁵ <https://www.bibalex.org/en/Events/EventDetails?DocumentID=35190&Keywords=> (accessed 9/2019).

¹⁶ <https://www.bibalex.org/PTI/en/course/details.aspx?ID=46> (accessed 9/2019).

¹⁷ To view these documentaries see <https://vimeo.com/179158553>; and <https://wedigboats.wordpress.com/2017/06/04/the-ain-el-mreisseh-underwater-archaeology-project/> (accessed 9/2019).

¹⁸ See Footnote 15.

several processes, such as fund raising, engagement of the local community and attracting volunteers.

Current Challenges

As becomes clear from the above, universities and research institutions have played a key role in the introduction of maritime archaeology in all three countries under discussion; training programmes, field projects and public outreach activities have created an unprecedented momentum for the domain. There are some issues, however, that hinder further developments, especially as far as capacity building is concerned.

Shortage of funding seems to be a common constraint, which often works against the positive initiatives described above. For example, the implementation of the UNESCO 2001 Convention in Egypt and Lebanon is facing a serious setback, namely the lack of trained human resources and funds to protect underwater and coastal sites. The scale of the problem in Egypt is more substantial as it concerns over 2900 km of coastline versus the modest 230 km in Lebanon. Furthermore, a full inventory of coastal and underwater sites is yet to be formed in Egypt due to the lack of funding, although a large number of graduates from CMAUCH could contribute to such a project.

In Cyprus and Lebanon there is still no underwater archaeological division at the respective departments of antiquities, except for the inactive marine centre in Tyre. The absence of commercial archaeology companies adds to the dearth of job openings in the domain—in Lebanon because such companies do not exist for underwater archaeology and in Cyprus because commercial archaeology is not practiced at all, either on land or in the sea. Thus, despite the significant impact of the previously discussed initiatives by universities and research centres, career opportunities are limited in all three countries. This may be one of the reasons that the numbers of students willing to invest in a career in maritime archaeology remains low. The high cost of advanced dive training as well as other demanding requirements of the field, certainly does not make things easy for young archaeologists. As Maarleveld and Auer (2008: 71) wrote: “people are needed who combine an intricate knowledge of archaeology with an understanding of maritime operations, an understanding of economy and proportionality and an understanding of planning processes and politics”.

It is also possible that the limited interest for a career in maritime archaeology is reinforced by the lack of large-scale underwater field projects, which could be inspirational and act as a driver for early-career archaeologists. In fact, the phenomenon of a vicious circle can be observed in this respect: young archaeologists are not easily attracted by small scale projects and, because of the lack in human resources, only small-scale projects can be undertaken by local institutions, i.e. low-cost expeditions of minimum requirements for infrastructure or expertise. In addition, it is true that excavations remain a difficult and debatable frontier in archaeological policies, on land and underwater, as they are costly, destructive, irreversible, logistically complicated, and they entail dedicated long-term commitments. Indeed, Rule Number 1 of the UNESCO 2001 Convention Annex suggests that excavations should be avoided when they are not absolutely necessary. Archaeological investigation of shipwrecks, in particular, can be an expensive exercise, especially given the added cost of support vessels, diving insurance and operation, and post-excavation conservation of a large number of artefacts and organic structural remains. In countries with challenging economic problems, national or local institutional bodies are unlikely to finance such investigations (Breen and Lane

2004: 470), while external or private funding remains the only alternative. ‘Low-profile’ projects, however, are less likely to attract potential sponsors or inspire volunteers and enthusiastic students of archaeology, willing to invest in a difficult career path.

Programmes of maritime archaeology provided by local universities, such as the universities of Cyprus and Alexandria, enhance capacity building because they open the field to more people, i.e. those who cannot afford to study abroad. Nonetheless, it is unavoidable that some competent scholars will seek career opportunities abroad, since the local job market remains restricted. In larger countries, like Egypt, it may only be a matter of time before locally based skilled archaeologists could cover the broad spectrum of expertise currently needed in maritime archaeological projects. In smaller countries such as Lebanon and Cyprus, however, it will always be a challenge to keep large teams of professionals working exclusively in underwater investigations, on a permanent basis.

Another factor that can hinder the comprehensive development of human resources of maritime archaeology, is the scarcity of related industries, such as commercial diving, marine engineering, shipping, marine remote sensing etc. Such companies can function as a pool of both archaeology and non-archaeology experts that provide high-level technical or nautical know-how, indispensable in underwater operations. They can also create an encouraging environment for the development of sophisticated, large-scale field projects by local institutions, but also synergies in education and training in tangential but necessary domains (Nutley 2007: 36–37). Cyprus, Lebanon and Egypt cannot yet demonstrate satisfactory capacity levels in this respect; in none of them is there a research vessel suitable for marine and underwater investigations (archaeological, biological, geological or other), and there are no large companies that could employ archaeologists in environmental surveys.

Tourism, however, is certainly an industry that does prosper in all three countries. An ultimate step to develop sustainable capacity would be to promote, enhance and implement ways in which “marine and maritime cultural heritage creates socio-economic benefits as well as environmental ones” (Firth 2015: 10). The creation of underwater archaeological parks could be a step in this direction, by promoting diving tourism economies, building a marine and maritime cultural heritage community, and contributing to sustainable growth (Rey da Silva 2014: 751–52, 755). Except for the two examples given above for the case of Lebanon, no such initiative has been implemented as yet. A possible reason behind this could be that local archaeological authorities are reluctant to provide public access to sites that they cannot fully control; this is especially true for Cyprus and to some extent Lebanon, where there is no governmental division responsible for underwater antiquities.

Educational initiatives and training opportunities should also be extended to encompass non-specialists as well as specialists. Raising awareness influences the development of management plans at local and regional levels, which can then be translated into national and international frameworks that work towards a more robust protection of maritime cultural heritage (Satchell 2017: 401). Development of public archaeology can generate not only an “understanding of the past” but also a “public appreciation in the present” (Firth 2015: 5, 51), yet it is a domain largely neglected in all three countries. Museums can play an important role to this end. In all three countries there are several archaeological museums (nine in Cyprus, fourteen in Lebanon¹⁹ and seventy-two in Egypt), but hardly any of them is exclusively dedicated to maritime archaeology (Table 1). An exception to this is the Alexandria National Maritime Museum that was inaugurated as early as 1982,

¹⁹ Three of these are archaeological site museums currently under construction at Beirut, and at Sidon and Tyre in south Lebanon.

Table 1 Institutions associated with Maritime Archaeology, in Cyprus, Lebanon and Egypt

	Cyprus	Lebanon	Egypt
University Programmes/Courses on Maritime Archaeology	1	0	2 (one active at Alexandria, and the other is under development at Aswan)
Government Institutions Specialized on Maritime/Underwater Cultural Heritage Management	0	0	1
Legislation with specific provision for the protection of and research at underwater archaeological sites	Yes	Yes	Yes
Nautical/Maritime Archaeological Museums	1	0	1 in Alexandria, not active since 1982
Commercial Archaeology	Not permitted by law	On land but not underwater	Not permitted by law

but it remains closed because of lack of funding. The rare exhibitions that display related themes only underscore that the field is not yet considered fully incorporated into mainstream archaeology. At the National Museum of Alexandria there is only one room about underwater archaeology limited to examples of statues that were excavated from underwater sites in Alexandria, as well as some coins. The Suez Museum, about the history and archaeology of the city of Suez from prehistory to modern era, includes the remains of some maritime-related archaeological sites, such as Marsa Wadi Gawasis and a replica of one of “Hatshepsut’s boats” (Ward et al. 2012). At the THALASSA museum, Agia Napa, Cyprus,²⁰ two ships used in nautical archaeological experiments are exhibited: *Kyrenia II*, the true replica of the Kyrenia shipwreck (Katzev and Katzev-Womer 1985), and *Papyrella*, an experimental construction of a reed-boat (Tzalas 1995). These exhibits are related to maritime archaeology but the museum’s focus is more on the marine environment and less on cultural heritage. In Lebanon only fragmentary artefacts related to maritime archaeology are found at the National Museum and at the Archaeological Museum of the American University of Beirut, while the Pepe Abed non-official museum in Byblos holds a collection of underwater artefacts that fishermen of the area retrieved from the sea over the years.

Collaboration at regional level could contribute significantly to the problem of limited human resources, but political complexities in the region is a hindering factor. Past and ongoing wars have been challenging peace in the entire eastern Mediterranean for many years: the civil war in Lebanon (1975–1990) and the occupation of south Lebanon by Israel (1982–2000); the Turkish invasion in 1974 in Cyprus and the occupation of the northern part of the island ever since; and the war in Syria, since 2011. Among other dramatic repercussions, this has resulted in an almost utter lack of communication between neighbouring countries in the region (in different combinations), something that renders collaboration schemes problematic or impossible.

Post-war reconstruction policies did not target favourable conditions for the protection of underwater antiquities, in Cyprus and Lebanon in particular. Priorities have been set on land management, with the maritime component conspicuously missing. Although political conditions are different between the two countries, in neither of them have they favoured official control of the rapid development that was seriously boosted by the coastal tourism industry (Abdul Massih 2010; Charaf 2015). It was indeed difficult for the authorities to respond to such threats in a timely fashion, due to the lack of a local community of maritime archaeologists, and underwater antiquities were exposed to serious risks. Cyprus’s northern coast, in particular, despite the individual efforts mentioned above, remains largely undocumented and unprotected.

Although land development is also a threat in Egypt, there have been cases of appreciative and supportive communities that put pressure on the government to act and implement coastal protection projects in order to conserve underwater archaeological sites. The Pharos lighthouse site is one such example: in 1994, documentary director, Asmaa Elbakry, led a fierce community uprising demanding the protection of the underwater remains of the Pharos lighthouse from the new Alexandria urban development and coastal protection project. This led to the first fieldwork season of CEAlex at the site in 1996.

²⁰ <https://www.thalassamuseum.org.cy/en/> (accessed 9/2019).

Conclusions

Maritime archaeology is a relatively young discipline in all three countries under consideration where significant progress, in varying degrees, has been made during the last 15 years in particular. Essential steps for enhancing capacity building have been taken, and although some are too recent to be properly evaluated, there are some lessons to be learnt regarding good-practice and fruitful initiatives.

One important conclusion in this respect could be that locally based administrative and scholarly institutions play a key role in the sustainability of human resources. This is clearly demonstrated both by the example of Egypt, where such institutions exist, and that of Lebanon where they are virtually absent. Another factor that may have created favourable conditions in Egypt could have been the monumentality of submerged antiquities, such as the Pharos lighthouse site and Thonis-Heracleion (La Riche 1997; Goddio 2007; Robinson and Goddio 2014), where large-scale projects with international appeal have been initiated. Internationally recognised institutions, like CEALex, that were involved in these projects and eventually established in the country, fostered a scholarly approach to maritime archaeology and contributed to the training and education of numerous local archaeologists. Moreover, the potential of turning these monumental sites into underwater archaeological parks that would add to the country's touristic assets, may have also functioned as a catalyst for the incorporation of maritime archaeology into the local archaeological establishment much earlier than in Cyprus or Lebanon. Thus, factors like emblematic underwater projects, international synergies and funding, as well as locally based institutions, coupled with a higher education programme, seem to have created a responsive socio-political landscape for building capacity in maritime archaeology in Egypt.

CMAUCH in Egypt is also a very instructive example of how effectively used external funds can make a significant impact on the development of new opportunities in developing countries. Similarly, the Chair of Maritime Archaeology at the Department of History and Archaeology, University of Cyprus, funded by a private foundation, demonstrates the importance of inspired initiatives by local individuals. The recent advent of the HFF in the region has also changed the landscape quite dramatically, since it has been supporting research projects that aim at surveying, recording, documenting, investigating and inventorying portions of the maritime cultural heritage, as well as funding education schemes, dissemination and publication of the resource, and contributing to capacity development initiatives. Although not yet locally based, HFF plays the role of an institution that engages with the authorities and instigates their involvement in maritime archaeology. This is particularly important for Lebanon, where there is no local institution is active in the domain.²¹

In sum, developments over the past two decades have positively impacted capacity building in maritime archaeology in Cyprus, Lebanon and Egypt. However, more efforts and initiatives are needed before these countries have adequate local human resources for maritime archaeological research, education, management and protection. Each country should set its own priorities, but what is essential in all three countries is to ensure that more research, training, and education opportunities are created to facilitate the aspirations of the younger generation, who wish to be involved in the domain, contribute to its progress, and expand its local capacity.

²¹ In 2019 HFF established a team in Lebanon to begin to bridge this gap.

Acknowledgements The authors would like to express their gratitude to the Honor Frost Foundation (HFF), for several reasons. It has supported their participation in the Sixth International Congress for Underwater Archaeology (IKUWA6) in Fremantle, Australia, where they presented three different papers in a session called ‘Maritime Archaeology, Capacity Building and Training in the Developing World’; this article distils the essence of the main ideas discussed in these papers. HFF has also supported the authors’ respective careers in different ways and on many levels, all essential for them and crucial for building on their current capacity. Lucy Blue and Colin Breen co-organized the session on capacity building in Fremantle; we cannot thank them enough for having invited us to participate. Special thanks are owed to Lucy Blue in particular, for generously offering her valuable guidance and feedback on this paper. All errors or oversights, however, remain our own.

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