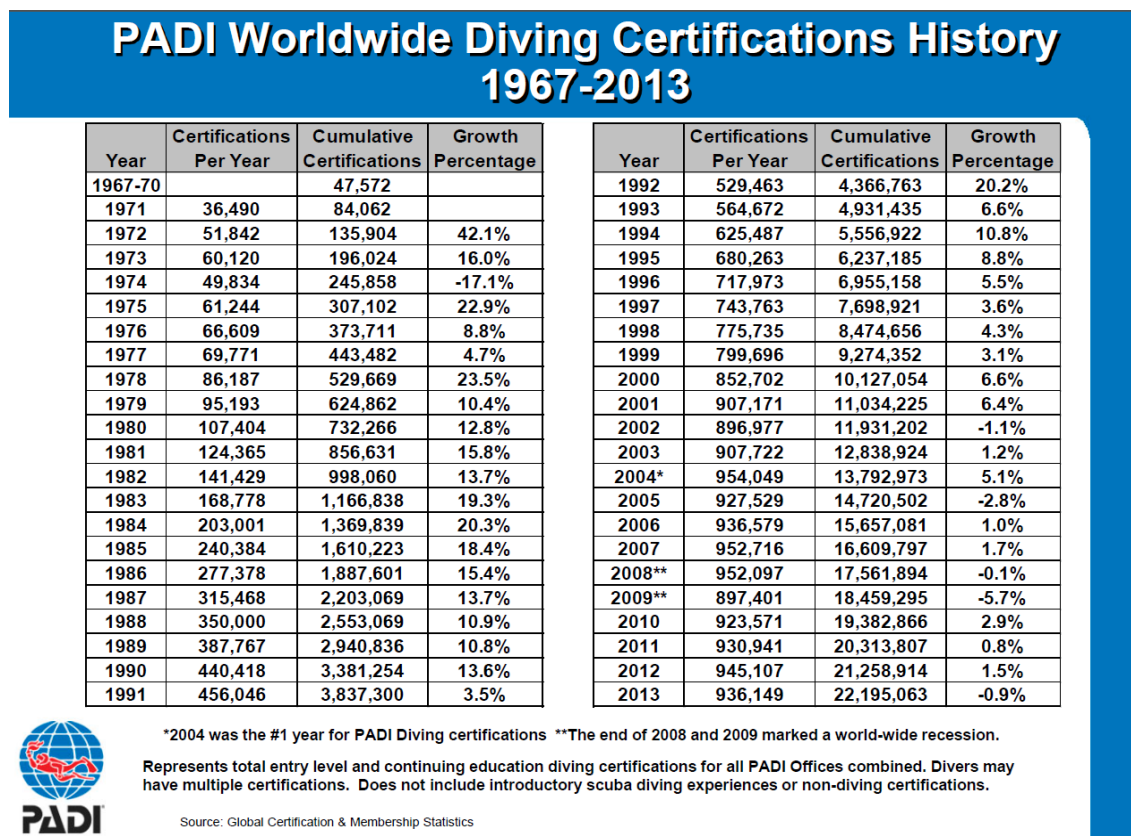


APPENDICES

Appendix I.¹

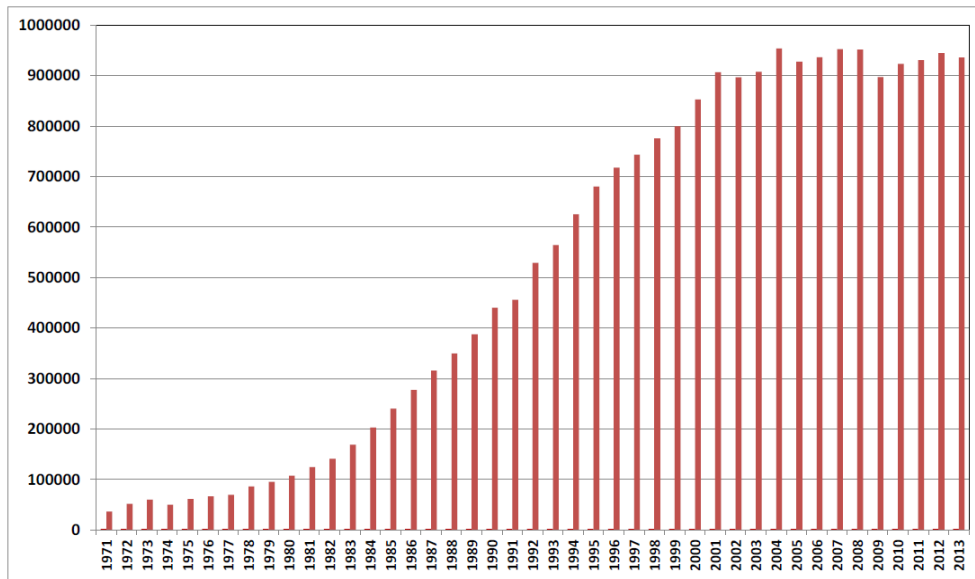
PADI: Statistic Report 2014



I. Figure PADI Worldwide Diving Certifications History
Image by: PADI

¹ PADI: Statistic Report, February 2014, In: <http://www.padi.com/scuba-diving/about-padi/statistics/>
[downloaded 01 October 2014]

PADI Worldwide Certification Trend 1971-2013



Represents total entry level and continuing education diving certifications for all PADI Offices combined.
Divers may have multiple certifications.

Source: Global Certification & Membership Statistics

II. Figure PADI Worldwide Certification Trend
Image by: PADI

PADI Worldwide Diving Certification Trend by Median Age

	2008	2009	2010	2011	2012	2013
Male	30	30	30	30	30	30
Female	27	27	27	27	27	27
All	29	29	29	29	29	29



Represents total entry level and continuing education diving certifications for all PADI Offices. Divers may have multiple certifications. Does not include introductory scuba diving experiences or non-diving certifications.

Source: Global Student Report

III. Figure PADI Worldwide Diving Certification Trend by Median Age
Image by: PADI

Appendix II.

Interview with the UNESCO

UNESCO is well known for giving proper help with clear instructions and practical manuals for its Members, sticking strictly to the approved official texts in the course of the implementation of the conventions and agreements, so as it does for the protection of the Underwater Cultural Heritage. Every necessary and detailed information can be found on the website with examples and advices. My idea was to utilize somehow this advantage and even to test and verify it. For this reason, I have used the website (www.unesco.org) as the subject of my interview. Strictly only from the website, the following answers have been found for my questions:

1. Why was there a need for the 2001 Convention on the Protection of the Underwater Cultural heritage?

“Shipwrecks and underwater ruins have become increasingly accessible. While professional equipment and a high level of training remain necessary to undertake excavations, submerged archaeological sites are no longer beyond the reach of treasure hunters. Thus, many undersea archaeological sites are pillaged without recourse to scientific and archaeological exploration methods. Similarly, the fishing industry, the laying of pipelines, and other ocean floor activities can damage or destroy such heritage. This increase in pillaging and destruction is leading to the irretrievable loss of our common heritage. It was therefore not only a necessity but also a matter of urgency to adopt a specific international instrument for the legal and material protection of the Underwater Cultural Heritage.”

2. What does exactly UNESCO mean by the term “Underwater Cultural Heritage?”

„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, buildings, 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.

This definition of Underwater Cultural Heritage includes ancient shipwrecks, like the Mary Rose wreck in Portsmouth, UK, the remains of the Armada of Philipp II of Spain or the ships of Christopher Columbus, as well as submerged sites and buildings such as the Alexandria Lighthouse, undersea rock art caves or Neolithic lakeside villages. However, it does not include installations still in operation, natural heritage or fossils.”

3. Why is Underwater Cultural Heritage so important?

“Underwater Cultural Heritage encompasses many sites that have not been touched over centuries or even millennia. When a ship sinks or a city is destroyed the remains are conserved by the water like a kind of “time capsule”. Furthermore due to the lack of oxygen, which would have facilitated the deterioration of biological material, and, until recently, its inaccessibility, Underwater Cultural Heritage is often much better preserved than similar sites on land, which makes these sites unique. For instance, the only known English long-bows - made famous by the legend of Robin Hood - were discovered on the wreck of the Mary Rose.

Testimony of historic events

Many sites, bearing testimony to important historic events, battles, the slave trade, natural disasters, and revolutions, are to be found on the bottom of oceans, rivers and lakes. The sites and shipwrecks of the battles of Salamis, Trafalgar, Lepanto, and Abukir and of the earthquakes that submerged Port Royal, Jamaica, and parts of Alexandria, Egypt, are just some examples. The remains of Herakleion, Baiheliang, as well as countless Stone Age settlements in the Baltic and the Black Sea are testimony to the rising waters that swallowed them.

Importance for cultural dialogue and national identity

Underwater cultural heritage can reveal aspects of history that are not yet known or that have not been accounted for in written records. For instance, the ancient trade between China and Africa, Indonesia and Australia, as well as the sophistication of ancient indigenous people can now be proven due to artifacts discovered on the seabed or in submerged caves. Since water has been used since the beginning of civilization as a way to connect different worlds, the remains to be found on seabeds are testimony to cultural dialogue from the beginning of humankind.

Economic importance

Diving tourism and maritime museums can be a significant economical attraction for an area or a city. It is not only their entrance fees that can be quite substantial, even more important is the economic impact they have on the cultural tourism industry and local tourist accommodation.

Global warming and Underwater Cultural Heritage

Rising sea levels due to climate change and the degradation of the ecosystem due to human activity may in the future increasingly affect cultural heritage sites. The augmentation in soil moisture after flooding may also lead to the instability and shifting of underground monuments and archaeological sites. Among cultural sites at risk are, for instance: Hawaii and Kilwa in Tanzania, Herschel Island in Canada and the remains of the explorer Scott's shelter in the Antarctic. Research concerning Underwater Cultural Heritage, which was once located on land, may prove to be a valuable source of information about the impact of water on sites and earlier changes in continental structures.”

4. What are the basic characteristic features of the 2001 Convention?

‘The Convention sets out basic principles for the protection of Underwater Cultural Heritage; provides a detailed State cooperation system; and regulations do nonetheless in some parts apply as customary law. The 2001 Convention is a treaty independent from UNCLOS. It is possible for a State not party to UNCLOS to join the 2001 Convention. It provides widely recognized practical Rules for the treatment and research of Underwater Cultural Heritage. The Convention consists of a main text and an annex, which sets out the "Rules for activities directed at Underwater Cultural Heritage". The 2001 Convention neither regulates the ownership of wrecks nor does it intend to change the sovereignty rights of States.’

5. What are the main principles of the 2001 Convention?

‘There are four main principles:

1) Obligation to Preserve Underwater Cultural Heritage

States Parties should preserve Underwater Cultural Heritage for the benefit of humanity and take action accordingly. This does not mean that ratifying States would necessarily have to undertake archaeological excavations; they only have to take measures according to their capabilities. However, the Convention encourages scientific research and public access.

2) In situ Preservation as the First Option

The in situ preservation of Underwater Cultural Heritage (i.e. in its original location) should be considered as the first option before allowing or engaging in any activities directed at this heritage. The recovery of objects may, however, be authorized for the purpose of making a significant contribution to the protection of, or knowledge about, Underwater Cultural Heritage.

3) No Commercial Exploitation

The 2001 Convention stipulates that Underwater Cultural Heritage should not be commercially exploited for trade or speculation, and that it should not be irretrievably dispersed⁶. This regulation is in conformity with the moral principles that already apply to cultural heritage on land. Naturally, it is not to be understood as preventing archaeological research or tourist access.

4) Training and Information Sharing

Currently, one of the major handicaps for the protection of heritage located under water is the fact that underwater archaeology is a very recent science. Many States do not yet have sufficiently trained underwater archaeologists. The Convention therefore encourages training in underwater archaeology, the transfer of technologies and the sharing of information.”

6. What are the threatening factors for Underwater Cultural Heritage?

“Threat of Looting and Dispersal

Many archaeological sites under water are subject to heavy pillage. Their exploitation and the sale of the objects found is reminiscent of events that took place a hundred years ago on many archaeological sites on land.

More than 345 large shipwrecks have been commercially exploited on a big scale in the last thirty years, with up to 500,000 objects recovered and sold per wreck, and the ship's hull left destroyed. The grey amount of pilfering and looting is however much higher, as irresponsible leisure divers increasingly damage wrecks and sites. Research has shown for instance that only a small minority of wrecks located in diveable depths along the coasts of the Mediterranean remain untouched.

Famous wrecks, damaged or destroyed by commercial exploitation, include the Geldermalsen, the Nuestra Señora de Atocha, and the Cirebon and Belitung wrecks.

Insufficient Legal Protection

Without adequate legal protection, underwater sites can be easily exploited by treasure hunters or be negatively impacted by industrial activities. Even when some legal protection exists, gaps in legislation and State sovereignty rights enable treasure hunters to pursue their activities and exploit artifacts for mere commercial purposes in disregard for the loss to humanity and science.

Construction and Trawling

Fishing nets and trawling devices may in some instances get caught on underwater cultural sites. Consequently, some elements may be moved and dragged over the seabed thus damaging or exposing the site. To avoid this, buoys may be installed and protective parks established. However, this is obviously only possible for known sites.

Infrastructural works such as the construction of ports, dredging, pipelines and oil or mineral extraction may also damage sites. This was the case of the Oranjemund wreck in Namibia and

the Mardi Gras wreck off the coast of Louisiana; German archaeologists undertook special efforts to protect the shipwreck barrier off Greifswald.

While such damages cannot be avoided entirely, they should be mitigated as far as possible and archaeological inspection should be mandatory before dredging or construction operations. This is already being done in many States and the cooperation between archaeological services and construction companies has proven fruitful and positive for both sides.

Environmental Influences

Submerged archaeological sites are not only threatened by human activities, but also by changes in the environment caused by earthquakes, storms, temperature variations, changing currents or coastal erosion. Usually, a site that lies buried under sediment reaches a stable anaerobic state with low levels of oxygen and light that reduces the process of material degradation caused by chemical, physical and biological factors. The following threats may however occur:

Physical threats: Erosion, abrasion and scoring: Harbor works, dams and other infrastructural constructions may change the course of currents and produce erosion of the seabed, exposing Underwater Cultural Heritage that was previously buried. Abnormal waves produced by underwater earthquakes can also disrupt the equilibrium of a site, removing the sediment over it and exposing it to water or bacteria. Many sites are also exposed to air due to sea level changes and may in consequence be destroyed.

Biological threats: Biological impact of fungi, bacteria and woodborers: Bacteria-induced decay threatens wood in marine sites and even more so sites in fresh water. The attack of woodborers, or *Toredo Naualis*, also poses a considerable biological threat to submerged wood elements. This shipworm can destroy wood within a few months. As an example, the Baltic Sea was until recently free of *Toredo Naualis* as are the waters of the Arctic and Antarctic. This is one of the main reasons why shipwrecks are so well preserved in their waters.

Chemical threats: Chemical processes can disturb the integrity of a submerged archaeological site, as for instance the corrosion of iron and other metals, which augments with the availability of oxygen on a site. Also, bacteria activity on wood can form minerals, such as pyrite, which is detrimental to wood because of the low PH₃ which causes hydrolysis of the

cellulose. Several important ships recovered from the seabed such as the Vasa, the Mary Rose or the Batavia have suffered damage as a result of such processes.”

7. What steps does the Convention recommend for the protection of Underwater Cultural Heritage?

“Shipwrecks and underwater ruins have become increasingly accessible. While professional equipment and a high level of training remain necessary to undertake excavations, sites are no longer beyond the reach of treasure hunters. They need therefore protection through practical measures and control. An effective protection requires nevertheless also guidelines and working standards.

Standard Setting

The UNESCO Convention on the Protection of the Underwater Cultural Heritage is an important legal instrument for the protection of Underwater Cultural Heritage. It aims at ensuring the universal protection of this heritage, the facilitation of State cooperation and the setting of professional standards.

The Annex of the Convention contains the Rules concerning activities directed at Underwater Cultural Heritage. They include practical and directly applicable regulations on the principles to be applied for excavations, on how a project design should be designed, the competence and the qualifications required for persons undertaking activities and conservation and site management.

Operational Site Protection

The protection of archaeological sites under water aims to control damage from human intrusion and environmental factors.

Survey and Establishment of Inventories

Survey is essential to any site protection program. It increases knowledge about existing heritage and enables the establishment of an inventory as prerequisite for an effective site protection plan.

In situ Protection

Before deciding to recover Underwater Cultural Heritage, the UNESCO 2001 Convention recommends considering as a first option the protection of sites in their original location (in situ). This should not be understood as excluding recovery, but as a recommendation to consider it only for scientific reasons that would make a significant contribution to the protection of or knowledge about Underwater Cultural Heritage.

Recovery

Activities directed at Underwater Cultural Heritage should use non-intrusive survey methods in preference to the recovery of objects. If excavation or recovery is however necessary to enable scientific research or the protection of the concerned heritage, the means employed must be as non-destructive as possible and contribute to the preservation of the remains. It is important for recovered Underwater Cultural Heritage to be deposited, conserved and managed in a manner that ensures its long-term preservation. This requires a high standard of conservation works.

Long-term Site Protection

Site supervision and the physical protection of sites may dissuade intrusion or damaging of submerged archaeological sites. It may also limit the damage incurred by environmental factors, such as bacteria, shipworms or storms.”

8. Why does the Convention recommend ‘in situ’ preservation?

“According to the 2001 Convention, preserving Underwater Cultural Heritage in situ must be considered as the first option before allowing or engaging in any activities involving this heritage. ‘First option’ is not the same as ‘only option’, or ‘preferred option’. Partial or total excavation may be preferable in a number of occasions depending on the specific situation. However, none of these reasons should prevent from considering in situ preservation first. This means that it should be first considered to leave wrecks and submerged ruins on the seabed in their original location. The recovery of objects may, however, be authorized for the purpose of making a significant contribution to the protection or enhancement of or knowledge about Underwater Cultural Heritage. The consideration of in situ preservation reflects the importance of the historical context of the cultural object and its scientific significance. It takes also the desire for heritage authenticity and integrity into account and respects the finiteness of the heritage resource. When a site is destroyed, even through excavation, its original state cannot be restored. Last but not least in situ preservation is also a response to the limited funds and the restricted depot space available. The principle of the preservation in situ is therefore a very modern one and in keeping with the latest developments in the presentation of cultural heritage. It also recognizes, however, that under normal circumstances, the concerned heritage is well preserved under water, owing to the low deterioration rate and lack of oxygen, and that it is therefore not per se in danger. Objects recovered from the seabed have to undergo a very extensive conservation process, which can become quite expensive and always includes a risk of deterioration of the object. This is avoided by in situ preservation.”

9. What does the UNESCO recommend for divers in order to make preservation possible?

- “Protect Underwater Cultural Heritage for future generations.
- Leave wrecks and submerged ruins untouched.
- Obey legal protection of archaeological sites.
- Seek permission to dive on designated sites.
- Only archaeologists may remove objects.
- Do not take souvenirs.
- Respect measures that protect sites.
- Report discoveries to the responsible authorities.
- Hand over objects that you took.
- Do not sell our common heritage.
- Document discovered sites.
- Be careful when taking photographs.
- Be a role model.”

10. Is there any new initiative regarding the Underwater Cultural Heritage?

„The Centenary of the First World War is commemorated in 2014. For UNESCO, this is a unique occasion to draw attention to the importance of the preservation of World War I Underwater Cultural Heritage.

The Centenary of World War I is the ideal moment to remind present generations of the importance of peace and to raise knowledge about the past through the research and preservation of the heritage it left behind.

From 2014 onwards, World War I’s submerged heritage will begin to fall under the protection of the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage.

Underwater cultural heritage from World War I has not yet been comprehensively researched despite the fact that it bears witness to one of the most important conflicts in recent history. This heritage is also highly threatened by metal recovery and treasure-hunting. UNESCO hence calls on its Member States, and on society to make more efforts to achieve

comprehensive preservation and to allow the understanding of a unique submerged legacy that is a one-of-a-kind testimony of war and a convincing voice for peace.”

Budapest, 14 April 2014

Interview with Attila J. Tóth

Attila J. Tóth is the only Hungarian underwater archaeologist and the leader of the Argonauts Research Group and associate of the National Office of Cultural Heritage.

1. Which are the most important Underwater Cultural Heritage sites in Hungary?

“We don’t need to travel to exotic places to find interesting remains. The researches of the past 12 years have proved that more than a hundred sites can be found in lakes and rivers in Hungary. Among the discovered heritage, there are shipwrecks in excellent condition, dating back to the Turkish times, remains of Roman ports and fortresses, old dwellings as well as ruins of establishments, such as the Roman limes, built along the Danube bend.

It is worthy of note, three of the above mentioned ones provide significant information about our history.

Firstly, the logboat accumulation, found at Drávamási has considerable importance, which is the biggest one in Europe. The first logboat, an approximately 10 meters long boat, carved only from a single log, was found in the Dráva River in 1992. The recovery started in August 2006 in collaboration with Croatian, French, Austrian archaeologists. Later on, in 2009, we



I. Figure: Cauldron
Photo by: Attila J. Tóth

have continued the research with the Argonauts Research Group and have discovered more than 30 Turkish boats in the area. They served as a pontoon-bridge and played an important role in the transportation of products and help to get across the river. Not only shipwrecks were found in the mud, but also a cauldron, millstones and a human skull.

These heritage sites have a great importance to better understand climate changes in the area, the utilization of rivers and river line commerce.

It has been suggested to recover these boats from the river that could be possible with adequate financial support for their preservation and installation.

The next significant discovery was three medieval shipwrecks in the Danube River near Tahitótfalu, Ráckeve and Dunaföldvár. They are important and exceptional because only a few river ships of this kind have been found in Europe. The wreck at Tahitótfalu looks the most promising one with intact cargo and the team has already found a pot. Fortunately, the wreck is protected by the mud and lies underwater even in low water periods, making it difficult to pillage for treasure hunters.

Before finding these wrecks, ships and shipping were not known from this period in Hungary and even in Europe only a few of them have been discovered. Now these remains give us an idea about medieval shipping in the Carpathian-Basin.

At last but not least, the third important heritage is the ruins of a Roman port discovered in the bay of the Shipyard Island in the Danube. The Palace of the Roman governor, built in 106 A.D. was also found in this area”.



II– III. Figure: Logboats
Photo by: Attila J. Tóth

2. Approximately how many professional underwater archaeologists are there in Hungary and how do they collaborate with each other?

„There is no professional underwater archaeologist in Hungary, only a dozen persons deal with underwater archaeology. Some of us are archaeologists, students, divers and there are also amateurs. We have established together the Argonauts Research Group. The aim of the group is to organize and transact underwater researches in national and international waters, to process and investigate the history of Hungarian shipping and to display, popularize, protect and preserve cultural heritage. We also collaborate with French, Croatian, English and Serbian colleagues at sites located in Hungarian waters and even at Hungarian shipwreck sites located in the Adriatic-Sea, such as the Saint Stephen warship.”

3. What kind of researches and projects are taking place in Hungary?

„At this moment we are not making any researches and as to projects, I could only mention two. One is called the "Cultural Passage along the Danube". About this project we have held presentations, conferences, exhibitions and have created a poster exhibition about the Underwater Cultural Heritage located in our waters that was displayed in numerous cities in Hungary and even abroad.

Another project is in consideration at the site of the Shipyard Island, thanks to the governmental rehabilitation of the Island, which could be extended for the protection and preservation of the underwater heritage site as well.”

4. What are the most important future projects?

“A future project could be the Queen Mary project, to find the sunken ship of the wife of King Louis II. The ship sank in 1526 in the Danube Bend, while Queen Mary was trying to save her treasures after the Battle of Mohács. To find the lost treasures is the big dream of the Hungarian archaeologists, but until today the expedition could not start the search due to the lack of funding.”

5. Is there any diving related museum in Hungary?

„Hungary boasts with a Diving History Museum in Csobánka and even an underwater museum located at the bottom of the Palatinus Lake in Dorog. In both of them, the museum visitors can get to know the early diving equipments and the history of diving. All the equipments in the lake were more than 20 years old, when they were displayed in 2006. Divers can find old masks, snorkels, knives, diving belts, underwater cameras and boards with information of the history of diving.

Anyway, in this lake we have also temporarily submerged a medieval shipwreck.”

6. Is it possible to establish in situ diving trails at Hungarian sites?

„Mass tourism cannot be expected, possibly diving trails at certain sites could be suitable for in situ access. This could be possible, for example, at the Shipyard Island, where diving conditions are better due to the protection of the Island, but actually, tourists prefer sites located in seas and oceans thanks to their better visibility and marine life.

In the Lake Balaton we have no significant sites, so the only possible way to display our heritage in situ, could be in a deep pool, such as the Nemo or the Y- 40.”

7. Is there any virtual exhibition of Hungarian sites for non-divers?

„No, there is no virtual exhibition of these sites due to the lack of funding and adequate labor force, but divers have created a web page of the underwater museum of Dorog. However we draw up inventories of sites that are registered at the local authorities, but this information is confidential to avoid treasure hunting at these sites.”

8. What kind of threat is present for Underwater Cultural Heritage in Hungary?

„Hungarian waters are not so rich in vulnerable objects for treasure hunters, so it is not so threatened by pillaging and commercial exploitation than heritage sites located in the sea and the circumstances are much worse. The only exception is at low water, when people go with detectors to find metals.”

9. Do the Hungarian diving centers collaborate with archaeologists and provide them help?

„No, as to my knowledge they do nothing for the protection of such heritage sites, moreover they profit rather of international cultural heritage sites if they find amphorae or other interesting remains. Contrarily there are several Croatian diving centers that collaborate with the authorities and provide support in maintaining, controlling and protecting submerged sites.”

10. Is there any important wreck from the WWI in Hungary?

„In Hungarian waters no, only from the World War II, but in the Adriatic - Sea there are significant Hungarian wrecks from this period.”

11. Did the UNESCO Educational Project come true in Hungary?

„In 2005, the „World Heritage in Young Hands” KIT was translated also in Hungarian, but the project has not started yet.”

Budapest, 19 November 2014

Interview with Enzo Maione

Enzo Maione, PADI instructor and founder of the Centro Sub Campo Flegrei Diving Center, responsible for the diving centre's marketing, is in charge of the school and manages inter-relations with PADI Europe, local institutions and the consortium Assodiving Flegreum.

1. What is the short history of the underwater Archaeological Park of Baiae?

“The park lies in the Phlegraean Fields (Burning Earth in Greek) zone of volcanic origin, where the phenomenon of bradyseism exists. The Uplift (positive bradyseism) or subsidence (negative bradyseism) of the ground is very fast when considered over geological time scales.

Due to these movements the ancient coastal belt collapsed resulting total submersion of all the buildings, which were constructed upon it. The once most reclaimed commercial city of Pozzuoli, the famous residential area of Baiae and Miseno, the seat of the western imperial fleet, were all of great significance during the Roman era; today, they are all below sea level.”

2. When did the first recovery take place?

“The first recovery of archaeological finds took place in the 1920s when, during the construction works at Port Venero, sculptures, architectonic elements and water systems with imperial insignias came to light.

In the 1940s, photographs provided evidence of the submerged archaeological area of Portus Julius. In the 1960s, the first underwater survey of Baiae with a map of the city was drawn. In this period numerous buildings were found, such as the nymphaeum of Emperor Claudius. After a sea storm at Punta Epitaffio, two statues of significant quality were revealed. They were recognized as being Odysseus and a companion.

Later on, the first underwater dig carried out by archaeologists was only in 1980. In 1984, the Supervisor of Baia Castle produced and initiated a restoration project for functional intervention within the area. Restoration works and experiments were made on the sculptures recovered from the site at the foot of Punta Epitaffio. In 1997, a hall within the museum was prepared to exhibit the nymphaeum of Emperor Claudius.”

3. What kinds of remains were discovered during excavation?

“During excavations and surveys several other remain were discovered on the seabed, such as a thermal bath complex, the Pisonian villa, including splendid floor decorations and the remains of fish breeding pools and the Roman wharf.”



I.Figure: Underwater floor

Photo by: Centro Sub Campi Flegrei Diving Center



II.Figure: Remains at Baiae

Photo by: Centro Sub Campo Flegrei Diving Center

4. When did the park become a protected area?

“During years, marine traffic has had a devastating effect on these submerged sites, so for this reason all commercial vessels were expelled from the site.

On the 7th of August 2002, the underwater Archaeological Park of Baiae was ratified as an agency to protect the marine area managed by the Archaeological Authority of Naples and Caserta. The area of the underwater Archaeological Park of Baiae comprises the coastline of Bacoli and Pozzuoli stretching, between the port of Baia’s southern-most pier and Lido Augustus pier in Pozzuoli, and is divided into three reserves; total (A), general (B), and partial (C).”

5. What are the principal objectives of the Park?

“The principal objectives of the underwater Archaeological Park of Baiae are:

- protection as well as environmental and archaeological enhancement, incorporating occupational opportunities;
- dissemination of knowledge about marine biology and underwater archaeological heritage;
- implementation of educational programs to improve ecological, marine biological and archaeological awareness;
- implementation of scientific research programs to further increase knowledge of the area;
- promotion of a compatible socio-economic development based upon traditional local activities, local residents and the businesses presently operating within the area.”

6. When did the first underwater tour take place?

“The realization of the first underwater tour in the area took place in 1999.”

7. Since when have you been in collaboration with the Park?

“In 2007, an agreement was signed between the Archaeological Authority of Naples and Caserta and the association Assodiving Flegreum, represented by Centro Sub Campi Flegrei, for the concession and regulation of diving activities within the underwater Archaeological Park of Baiae.”

8. What does the diving centre do for the protection and preservation of the Park?

“We at Centro Sub Campi Flegrei are continually engaged in defending the marine environment. We have also become a society member of „Legambiente”- the largest national environmental organization in Italy. Since 2001, the diving centre has taken part in projects associated with environmental protection and on both national and regional basis; we have been participating in environmental campaigns. Since 2005, we have also regularly organizes activity camps for volunteer divers within the underwater Archaeology Park of Baiae.

In 2010, this was complemented by a greater involvement with the activities of the Project AWARE Foundation, particularly regarding the issue of Marine Debris; highlighting such serious problems and advising scuba divers of how we are uniquely positioned to directly and positively affect real, long-term changes as part of an unprecedented global movement acting in our own community to protect oceans.

Furthermore, on 30th January 2007, an agreement was signed between the Archaeological Authority of Naples and Caserta and the Association Assodiving Flegreum, represented by Centro Sub Campi Flegrei, for the concession and regulation of diving activities within the underwater Archaeological Park of Baiae.

Moreover, we organize programs for the World Diving Day, including presentations of the protection of underwater world and we also collect rubbish on the shore and during diving as well.”

9. What kinds of regulations exist for diving centers to get a permission to dive in the underwater park of Baiae?

“First of all, there must be an agreement between the diving centers and *the* Archaeological Authority of Naples and Caserta based upon having an institutional interest to broaden public awareness towards the Park. The diving consortium has been established specifically for the purpose of obtaining the Archaeological Authority’s permission to carry out underwater recreational activities within the Park.

Having signed this agreement, there are several other regulations that the diving centre must follow, such as:

- all diving activities are carried out with a trained guide for a maximum of eight persons per diving;
- no more than five dives per day are permitted to each of the Park’s zones;
- admission fees to the Park cost €35.00 per visit;
- install an anchorage point (dead body or buoy) at its own expense at each of the archaeological sites in order to identify them from the Archaeological Authorities own underwater archaeological group;
- provide the Archaeological Authority with a calendar stating the dates of the dives within the Park prior to the 5th of every month;
- pay royalties of 10% on the total gross turnover to the Archaeological Authority on a quarterly basis;
- communicate and justify (by reporting completed diving activities) the agreed payment within five days of the subsequent month, i.e. April, July, October and January;
- open an insurance policy to cover possible damages which may occur to visitors during their activities within the Park. Stamp charges and possible additional costs are to be borne by the licensee;
- the agreement is valid for one year and is renewable each year”

10. Does the Diving Centre educate visitors and draw attention on the protection and preservation of submerged cultural heritage sites?

“We have the establishment of the school of underwater archaeology, called “ArcheoSub Baios”. Baios is the name of the legendary helmsman of Ulysses, from whom the name Baiae is derived. The school is a significant service centre in the field of underwater archaeological training. By partnering with organizations, institutions and professionals, courses are organized in underwater archaeology for volunteer archaeologists (amateur and professional) and higher education purposes.

Each year we organize the following courses:

- Underwater Archaeological Volunteer Fieldwork
- Introduction to Underwater Archaeology
- Advanced Underwater Archaeology
- Underwater Archaeological Photography
- Higher Education in Underwater Archaeology
- Nautical Archaeology Society (NAS) courses
- PADI Distinctive Specialty: Underwater Archaeology Diver

For recreational divers, we are also trying to teach how to preserve and help in the protection of archaeological sites. During our diving courses, we talk a lot about the park and its possibilities. We also draw attention on souvenir pieces, the possible costs of damages and don't let tourist to touch and have devastating effects on such protected heritage.”

Budapest, 01 November 2014

Interview with Attila K. Kollár

Interview with Attila K. Kollár, CMAS, UEF diving instructor and expert of cave diving who has been diving for 40 years. He also took part in the first expedition at the Hungarian St. Stephen warship, sank in the Adriatic Sea. With his son, they have been teaching diving, writing diving books, editing the BÚVÁRINFÓ magazine, operating 6 diving related web pages and have also published DVDs for divers.



I. Figure: Diving Muzeum
Photo by: Búvármúzeum

1. If I am right, the diving exhibition in the Lake Palatinus is the only one in the world, but who had the idea to make such a unique exhibition under water and why right here in the Lake Palatinus?



II. Figure: Displaying objects
Photo by: Búvármúzeum

“In the world there are numerous museums and exhibitions displaying diving equipments, but as we know, there is no more exhibition, like this one, located under water.

Since ages we have been diving with my son and we have always been collecting equipments. It was our common idea to utilize somehow these old and interesting things.

We thought that it would be a great idea if new divers could get to know equipments divers used many years

ago. It is really complicated to set up a permanent exhibition on land, for this reason we have realized it under water.

We got a lot of support from our diver friends, some of them have put on their own old equipments, while others have took part in the construction and maintenance works.

List of our supporters:

- ALFILA Ltd.
- BÚVÁRINFÓ
- Divex Sportáruház
- Spartacus SE divers
- Esztergom Szent István Plage
- Euro-Hungária Foundation
- FTSK DELFIN divers
- Szenteltvíz Diving Shop
- UEF - Underwater Explorers' Federation
- Tamás Csoma
- Csaba Garamvölgyi
- Károly Hlatky
- Zoltán Józsa
- Attila K. Kollár
- Krisztián Kollár
- László Maróthy
- Miklós Medek
- Dr. Szabolcs Németh
- György Roith
- Antal Sturcz and his diver friends
- András Szabó
- László Székely
- Endre Virág

By the Lake Palatinus there is a diving base, frequented by lots of divers and instructors with beginners. Therefore, we decided to make it real right here, where numerous divers can enjoy it. We also have a friendly relationship with the former and present operators of the base and we could count on their help too.”

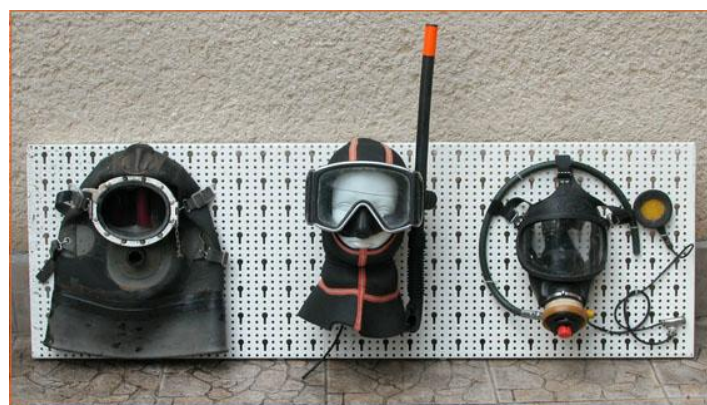


III. – IV. Figure: Construction works I, II
Photo by: Búvármúzeum

2. What does the exhibition exactly include? What can visitors see under water?

“The Diving Museum includes old diving equipments, pictures and tableaus presented in a large cage. Since 2006, when we opened the exhibition, it has been renewed and now the following collections can be seen:

- First block: a Soviet closed diving suit with breathing apparatus.
- Second block: pictures of the evolution of the ABC (mask-fins-snorkel) with objects, such as a one stage built mask and snorkel, a French PHOQUE helmet and a diver phone.



V. Figure: Masks and snorkels
Photo by: Búvármúzeum

- Third block: pictures and equipments from the 1970s, such as a panorama mask, a Hungarian diving knife, old diving instruments, breathing apparatus and a scuba tank. On the other side

of the cage in the upper part, a molino can be found presenting the history of the breathing apparatus and the lower part includes objects.



VI. Figure: History of the breathing apparatus
Photo by: Búvármúzeum

- Moving on, an old diving apparatus and a collection of diving instruments can be seen.
- The last block exhibit the history of underwater photography including underwater cameras, underwater diving lights and a HIDROFLEX camera, invented by László Maróthy and Károly Hlatky in 1968-70.
- The exhibition also includes the names of all participants and supporters.”



VII. – VIII. Figure: Diving Muzeum under water
Photo by: Búvármúzeum

3. For who and when is it possible to visit the exhibition?

“The exhibition can be visited by all divers checked in at the base during its opening hours.”

4. From the opening time some years have gone by, can we say that the exhibition has been successful? Are there any visitors coming from further parts of the country or maybe from abroad?

“The museum has had a lot of visitors since the opening in 2006, but we have no exact statistics and we don’t even wish to collect them. It is a fact that on a sunny weekend, in summer, about 100 divers come to the diving base and about half of them visit the museum as well. Most of them are instructors with beginners and we also have returnee visitors. They also come from other part of the country regularly, but foreign visitors are not typical. Without doubt, we think that the exhibition has been successful which is also proved by the numerous press releases about it.”

5. Who does and how the maintenance work?

“Maintenance is a very particular work: with smaller and bigger brushes, sponges we need to get rid of muscles and different kind of algae, cleaning all the objects, panels, molios and cages. During these works with my son we always dive and we have helpers from the FTSK DELFIN Scuba Diver Department (I am a member of this group from ages) while others make cleanings.”



IX. – X.. Figure: Removing the algae
Photo by: Búvármúzeum

6. Were there any legendary diving personalities in Hungary who contributed to the development of diving or diving equipments?

“If we talk about legendary personalities I could mention the name of Zotmund, known as Búvár Kund (see: http://www.magyarbuvar.hu/pages/arckepecsarnok/arckepecsarnok_kund.htm), but certainly many people have contributed to the evolution of diving with the development of diving equipments, with the set of diving centers, with the results of underwater cave researches, with their instructor activity and with their results of competitive sports.”

7. What do you think if it would be possible to develop diving tourism in Hungary?

“This is a very complex question and it is understood differently by all divers and diving centers. Unfortunately, our waters are not so attractive for foreign divers. Despite this fact, we have several mine lakes (Hegyeshalom, Nyékládháza, Gyékényes, Palatinus, Rudabánya), where with adequate developments and advertisements attendance could be increased. Furthermore, the 'opening' of caves could increase the number of dives and could also attract divers from abroad. At the same time cave diving can have many serious risks and it is not competitive with diving facilities provided by the Adriatic and the Red Seas.”

8. Do you think a diving complex, like the Italian Y-40 could have great success in Hungary

“No. I have made a lot of researches in this field and I know all the news about this idea in the press. In my opinion, those, who claim that it could be a yielding and successful investment have not thoroughly examined it or are not adept in this issue.”

9. Are there any interesting wrecks in Hungary, where diving is possible?

“Unfortunately no.”

10. Is it possible for recreational divers to dive in caves located in Hungary?

“As I have already mentioned it, cave diving is very risky. According to the present regulations, it is only possible for divers with research authorization with strict specifications, but I do believe that with adequate solutions it could be possible to utilize these caves for recreational diving.”

11. What kind of programs, competitions are held for divers to get together?

“Many kind of leisure programs are held by divers, such as the Easter egg hunting, memorial dive programs, dives in groups on national holidays, diving camps, diving equipment presentations, set up of Christmas trees under water or the beer drinking competition taking place under water, underwater running or underwater wedding. Also international diving sport competitions are organized by the Hungarian Diving Association, such as the swimming with diving fins, diver swimming, orientation swimming and we have successful underwater rugby and hockey teams.”

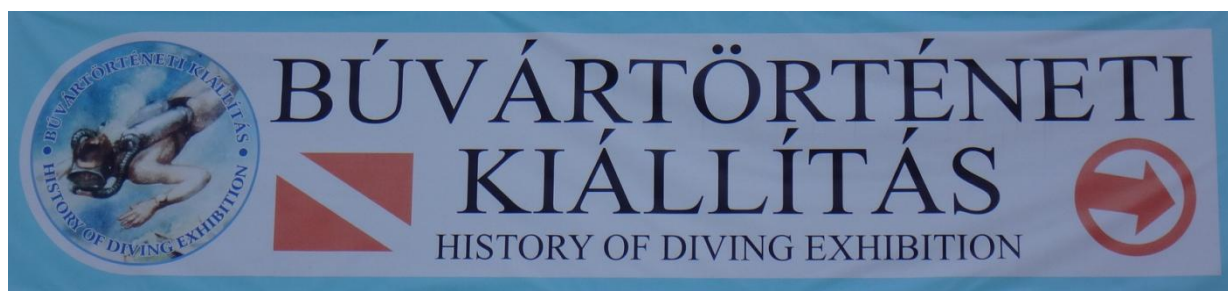
12. Do Hungarian divers and diving centers contribute to the protection and preservation of Underwater Cultural Heritage located in Hungarian and in international waters?

“There are only a few numbers of Hungarian divers who also handle with underwater archaeology. Nevertheless, national – principally - riverine diving archaeology is productive. In Seas, mostly in the Adriatic Sea, wrecks from the Austro-Hungarian Monarchy are visited and investigated. All in all, in my opinion Hungarian divers contribute a lot to the protection of such heritage with their dives, pictures and publications.”

Budapest, 22 October 2014

Interview with Mr. László Lengyel

Mr. László Lengyel, diving instructor at the Kékség Diving Club, member of the Underwater Explorers' Federation, had the idea, together with Mr. Norbert Puskás, to establish the first Diving Museum in Hungary.



IV. Figure: History of Diving Exhibition
Photo by: Klaudia Kovács

1. Could you tell me about the history of the only Diving Museum in Hungary?

“As it is known, 70% of the Earth’s surface is covered by rivers, lakes, seas and oceans. Many people know their surface, but very few know the depths. According to scientific opinions, the surface of the Moon is more known than the deep blue world. The common problem is that people are not able to live in space or under water without special technical equipments. Diving technologies are in the service of science in order to reveal this hidden world.

Besides, making a living, the greatest force making men to go under water was curiosity. Later, when the technological development made it possible, more and more people have taken the opportunity to know the “world of silence” as Captain Cousteu called it.

With our exhibition we wish to show visitors the history of diving, especially from the technological side, in light of the Hungarian diving history.

The idea was to utilize and exhibit old diving equipments that Mr. Norbert Puskás had in his cellar for ages and to create posters displaying the history of diving from the beginning until nowadays. As I am a graphic designer, I have made all the posters, while Mr Puskás has given us the majority of the collected objects.

On 12 April 2014, we opened the first Diving History Museum in Hungary in the Community Centre in Csobánka. At that time, I was the deputy mayor of Csobánka, where I have been living for ages. On the opening day Mr. Bertalan Farkas, the only Hungarian astronaut greeted the public, who has also tried diving at several dive sites.”

2. What does the Museum exactly include?

“We have displayed several kinds of equipments, like old fins, masks, snorkels, wet and dry diving suits, tanks, knives, underwater cameras, diving lights and buoys, regulators, instruments, books and breathing apparatus. Furthermore, all the walls are decorated with interesting posters displaying the whole history of diving in Hungarian and even in English with many pictures.

Moreover, we have a TV angle, where a short summary can be seen about diving.”



II. Figure: Scubapro
Photo by: Klaudia Kovács



V. Figure: Mask and breathing apparatus
Photo by: Klaudia Kovács



IV. Figure: Mask, snorkel and fins
Photo by: Klaudia Kovács



V: Figure: Diving suits
Photo by: Klaudia Kovács



VI. Figure: Diving equipments
Photo by: Klaudia Kovács



VII. Figure: Poster
Photo by: Klaudia Kovács

3. Do you continuously extend the exhibition?

“Yes, for example in these days I will display numerous cultural objects from Great-Britain, like porcelain plates, glass bottles (some of them have shells inside) and other cargoes.”



VIII. – IX. Figure: Porcelain cargo
Photo by: Klaudia Kovács



X. – XI. Figure: Glass cargo
Photo by: Klaudia Kovács

4. Do you organize programs for divers or for the interested public?

“We are organizing a special “swimming pool” program in Esztergom for those who are interested in trying out old diving equipments.”

5. For who and when is it possible to visit the Museum?

“Everybody can visit the museum within the opening hours of the library of the Community Centre.”

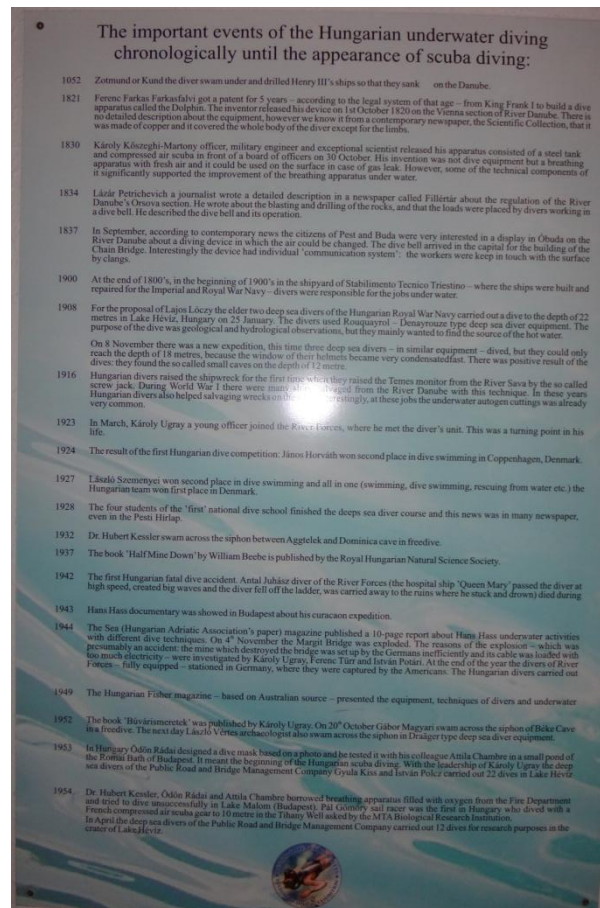
6. Do you think the Museum has been successful? Do you have visitors from abroad?

“Yes, absolutely. Well, Csobánka is not a typical turistical place, but a lot of divers came here to visit the exhibition. So far around 6-7 hundred visitors we had, mostly in summertime. Principally children and the young generation enjoy it, while elder generation can still remember using these equipments.

Foreign visitors are not common, but it can happen that they find it on the internet and passing by the region they also visit the Museum.”

7. Were there any legendary diving personalities in Hungary who contributed to the development of diving or diving equipments?

“We have a poster about the important events of the Hungarian underwater diving until the appearance of scuba diving. Later, I would emphasize Mr. László Czákó, who led the first expedition in 1994 to the Hungarian St. Stephen warship, sank in the Adriatic Sea. Moreover, Amphora Diving Club, who participated in the construction works in the Lake Hévíz between 1985 and 1991. Last but not least, instructors and amateur divers are trying to make developments in this field and archaeological researches led by Mr. Attila J. Tóth.”



XII. Figure: Important events
Photo by: Klaudia Kovács

8. What do you think if it would be possible to develop diving tourism in Hungary?

“First of all, by taking advantage of our possibilities. I do believe diving tourism could be more successful in Hungary if we could utilize better what we have in our waters. First of all, an interesting dive sites could be the flooded cellar system of Kőbánya, the Lake Gyékényesi, the ruins of the limes, the logboat site at Drávatamási and the Lake Hévíz. At these sites divers could move along ropes with diving maps, exploring special archaeological and other interesting sites, trying an extreme kind of diving out.”

9. Do you think a diving complex, like the Italian Y-40 could have a great success in Hungary?

“No, I think it won’t be profitable. Mr. Attila K. Kollár have established a small one, I don’t know if it is usable or not anymore, but I don’t think a big project could be successful in this field.”

Csobánka, 13 November 2014