CREATING A DIVE PARK FROM IDEA TO REALITY
Cover photo: The Jutholmen wreck. PHOTO: Jim Hansson, SMTM.
Editor: Pernilla Flyg
Layout: ETC Kommunikation
Print: Elanders, 2019
Translation: Språkkonsulterna Prodicta AB

This handbook has been fact-checked by Petra Stråkendal, maritime archaeologist and initiator of the dive park project Världsravets glömda vrak (“Forgotten wrecks of the World Heritage City Karlskrona”).

Produced by the Swedish Maritime and Transport Museums within the EU Interreg Central Baltic project BALTACAR.

© Swedish Maritime and Transport Museums (SMTM) and the authors.

ISBN: 978-91-984714-7-2
Contents

Page 11  Dive parks around the world. Göran Ekberg.
Page 21  From dive ban to dive park. Pernilla Flyg.
What is hiding beneath the surface?
100,000 shipwrecks!

3D-rendering of the 17th-century wreck of Bodekull, created by Ocean Discovery. The rendering is based on a 3D-model produced by maritime archaeologists at SMTM.
The Baltic Sea is an inland sea that divides and unites many countries. Thousands of ships have travelled here throughout the ages, and many of them have sunk to the bottom of the sea. In fact, it is believed that the sea is home to an astonishing 100,000 shipwrecks.

Thanks to the special water conditions, wrecks can remain upright at the bottom for hundreds of years, more or less intact. They can tell us about historical events and human destinies. But they’re a limited resource – after all, no more ships from the 16th or 17th centuries will be sailing the waters.

The many well-preserved wrecks make the Baltic Sea a place that is unique in our world. So, the value of preserving its cultural heritage and making it available is great. We can best preserve its value by allowing the wrecks to stay put in their environment, but they must also be protected from impact. By raising general awareness about these wrecks and their stories, we promote people’s interest in safeguarding them. Dive parks are one way to make this happen.

This handbook contains advice and examples of how to create a dive park. The practical examples are mainly taken from the work on Dalarö Dive Park in the Stockholm archipelago, but we believe that the experience can also be used elsewhere.

The handbook has been created within the framework of the EU Project BALTACAR – Baltic History Beneath the Surface – where Swedish, Finnish and Estonian colleagues collaborate in an attempt to bring to light the cultural heritage of the Baltic Sea beneath the surface. I hope that the information can help to ensure that more and more people – both scuba divers and others – can experience our common cultural heritage.

Leif Grundberg
DIRECTOR GENERAL OF THE SWEDISH NATIONAL MARITIME AND TRANSPORT MUSEUMS (SMTM)
Measuring a wreck in Emerald Bay.
PHOTO: CALIFORNIA STATE PARKS

Art installation “We are the reef” at the Museo Subacuático de Arte.
PHOTO: ANDY BLACKLEDGE, LICENSED UNDER CREATIVE COMMONS BY 2.0
What is a dive park?

Dive park is a term that can represent a wide range of experiences for divers with or without air tanks on their backs. What the term covers is determined by the organisation or individuals who create what they call the dive park. A trail for free divers or snorkelers can be a dive park, or it can be a place where one or more works of art have been lowered into the water. Even so, dive parks usually involve shipwrecks. One or more ships might be sunk to create an artificial reef and an exciting object to dive on. In some locations, dive parks have been established where ships have sunk in an accident or by other “natural” causes. These wrecks, or even other types of objects, can be interesting from a cultural heritage perspective, and in some cases such remains are protected by laws like the Swedish Heritage Conservation Act.

Marine biology

Dive parks that teach visitors about marine biology are often adapted for scuba diving with the aid of a snorkel and mask. Often, a rope or other equipment leads the visitor along the right path among the signs containing information about the plants, aquatic animals and other organisms present at the site. On the approximately 200-metre-long snorkel trail that
was inaugurated in 2010 at Rörvik, on the island of Sydkoster off Sweden’s west coast, divers can learn what beach crabs, mussels, bladderwrack and other creatures look like and the conditions they live in. If you want to learn more about animals and nature under the surface of the Baltic Sea, you can go to Dragsö Camping outside Karlskrona. The site has a 1,000-metre-long marked trail under the water. At twelve points along the trail, information signs describe the different fish and plants found in the Baltic Sea. Other snorkel trails in Sweden can be found at Saltö in Kosterfjorden, at Lysingebadet in Västervik, at Björkhagen in Skälderviken, at Nåttarö in the Stockholm archipelago, and on the Badholmarna islands at Arkö in Östergötland.

Art

In recent years, dive parks have emerged in many parts of the world consisting exclusively of works of art in the form of different types of sculptures. These art installations vary anywhere from a single statue to several hundred statues and figures, many of which have been designed in groups or in the form of a single figure in a specially sculpted environment. Most dive parks with art installations also serve as artificial reefs, where scuba divers or free divers can see vast numbers of different fish species. Examples of this type of dive park include Grenada Underwater Sculpture Park, where divers and snorkelers alike can experience life-size figures placed at a depth of 4–7 metres. A similar dive park, the Museo Subacuático de Arte, was built in 2009 in several locations near Cancun, Mexico, and features more than 500 life-size figures. This underwater art gallery can be visited by divers but is ideal for snorkelers, because the depth of the water is generally less than four metres. A third similar site opened for divers as recently as 2017. The Museo Atlántico, outside the Canary island of Lanzarote, serves as a regular museum where visitors pay an “entrance fee” to experience the installations 12–15 metres below the surface. The roughly 300 figures are scattered over an area of about 2,500 square metres, and buoys on the surface indicate where divers can descend. The entrance fee paid by visitors and divers is intended to cover maintenance of the concrete figures and of the buoys used for mooring the diving boats.
In more and more locations around the world, a huge variety of vehicles are being sunk to offer divers an unusual kind of dive site. Planes, buses, cars and even military tanks are being sent to the depths below. As with all the sunken concrete figures in the other locations, the sinkings are intended to not only offer divers new dive sites, but to establish areas where plants, aquatic animals and other organisms can live. Some of these artificial reefs and dive parks are enormous, such as the Boeing 737-200 sunk by the Artificial Reef Society of British Columbia in Canada outside Chemainus, British Columbia, in 2006. The aircraft, which was donated to the society by Air Canada, is just over 30 metres long and now lies approximately 27 metres deep. Outside the Turkish seaside resort of Kusadasi on Turkey’s west coast, an Airbus 300 was sunk a few years ago which was 54 metres long with a wingspan of 44 metres. Today the plane lies at a depth of 22 metres. Those responsible for sinking the aircraft expect the number of divers visiting Kusadasi to surge thanks to the new dive site. Off the coast of Bahrain, an underwater theme park has opened that will eventually cover an area of 100,000 square metres and feature a 70-metre-long Boeing 747 jumbo jet as the main attraction. Other objects – even a house – are planned to be submerged.

Outside the Lebanese port city of Sidon, a
volunteer organisation has sunk six tanks and four armoured wagons, donated by the Lebanese Army, to create both an artificial reef and an underwater park for scuba diving. The park is meant to attract many tourists to the area. The vehicles are located about 3 kilometres off the coast at a depth of 14–18 metres, easily accessible to interested divers.

Another type of diving theme park is Athens Scuba Park outside Dallas, Texas. Just south of Dallas, the city of Athens contains a small spring-fed lake and a big business that attracts divers from many parts of the United States. A former quarry for the clay brick industry measuring 32,000 square metres and 6-12 metres deep, it today contains more than 30 different sunken objects including two aircraft, a bus and many different kinds of boats. The land around the lake features campsites, a dive shop, picnic area and various recreational areas. The idea is that visitors
should spend one or a few days in the area and
that the activities should be available even for
people who are not divers. Visitors to the park
pay an entrance fee.

In the small coastal town of Glyngøre in Limfjorden, Denmark, plans were hatched to create
a dive park back in 2009, and after four years
of hard work raising funds and obtaining all the
necessary permits the park opened for divers in
2013. Visitors can follow along a chain 275 me-
tres out from land and arrive at a sunken Swedish
minesweeper. From there, they can keep swim-
mimg to reach a platform that acts as the hub of
the underwater park. From the platform, divers
can also reach a military tank named Leo and an
artificial cave made of concrete. A little farther
from the platform, divers can spot a smaller
sunken pilot boat. The dive depth of the various
objects is approximately 14–17 metres. Diving on
the site is free, but visitors who want to support
the business can purchase a membership or
donate money for its maintenance.

Undoubtedly, the most common form
of dive park consists of purpose-
sunk vessels. Seas and lakes contain
a vast number of ships both big and
small that were deliberately sunk to
create appealing dive sites, often to
serve as artificial reefs. But there are
many different aspects to consider
in order to get permission to sink a
ship, whether large or small. The ship
should undergo an environmental
assessment to provide the basis for the
environmental clean-up that must be
done. In an environmental clean-up, all
hazardous liquids and objects on board
are removed to ensure that the sinking
process does not adversely affect
the environment. After the ship to be
submerged is cleaned according to all
the relevant rules, it also needs to be
retrofitted. Openings are drilled in the
hull and superstructure so that divers
can safely swim into the ship without
the risk of getting stuck. Confined
spaces can be welded together so
that divers do not get lured into small
spaces. Sharp edges or other dangerous
objects can either be removed or
disposed of.

After these steps are taken, you can
plan to safely sink the ship and place
it in an upright position at the location
approved under the permit.
Deliberately sunk ships

A good example of careful clean-up and risk minimisation for scuba diving is the Danish train ferry Ærøsund, which was sunk to a depth of 19 metres outside Svendborg on the island of Funen in October 2014. The clean-up and safety retrofit cost approximately 1.7 million Danish kroner (roughly 228,000 euros). Today the wreck contains information plaques describing the ferry’s history.

The clean-up cost for the Ærøsund ferry can be compared with the approximately 20 million US dollars that it cost to clean up the largest purpose-sunk ship ever. The U.S. aircraft carrier USS Oriskany was cleaned up in 2004 before being sunk as an artificial reef and dive site off the coast of Florida. The ship, which is 271 metres long, was sunk in May 2006 by detonating 230 kilograms of explosives. The engineers who performed the sinking figured that it would take the Oriskany 5 to 8 hours to sink; it took just 37 minutes. Popularly known as the Great Carrier Reef, the aircraft carrier today lies 64 metres below the surface with the top of its superstructure at about a 24-metre depth. The Oriskany is a hugely popular dive site for experienced divers. In 2007, more than 4,200 diving expeditions to the wreck took place.

Ships have also been sunk in Sweden (albeit slightly smaller vessels) in order to create new dive sites. One of the first ships that got permission to be sunk was an old Danish fishing vessel. The 27-metre-long ship, which during its time in service was called the Haddock, was renamed the Aqualand and was sunk in 2005 to a depth of 18 metres outside Skärhamn on Sweden’s west coast. Outside Fjuk in Lake...
Vättern, a 17-metre-long boat that was built way back in 1926 was sunk in 2011. The Octopus diving club in Motala received information about the boat, Elsa af Lidingö, which had long been laid up at a local shipyard. The boat was bought, cleaned up and sunk to a depth of 21 metres. A sinking has also taken place in Stockholm. In 2011, the County Administrative Board and Swedish Environmental Protection Agency granted permission to sink the former Danish North Sea trawler, Benli (formerly Dolores), just west of the Lidingö bridge stronghold on the island of Lidingö. The Benli rests about 15 metres deep and 30 metres from land. The wreck is often frequented by diving schools, who use it as part of their diver training.

Cultural heritage dive parks

In some locations around the world, dive parks have been established at sites where old wrecks, or other older remains, have been uncovered. One such dive park can be found in Emerald Bay in Lake Tahoe, California. Since the 1860s Emerald Bay has been a famous tourist destination, and the boats and barges that lie beneath its waters have been used on the lake since the early 1900s. Here, scuba divers and free divers can visit two large barges, two fishing boats and a smaller passenger boat, the Florence M. This boat was built in 1915 and is the oldest boat that can be dived on in the park. The boats lie at a depth of 3–30 metres. On land, along the bay’s beaches, visitors can find campsites and a visitor centre as well as a Scandinavian-inspired castle called Vikingsholm. Emerald Bay is California’s first cultural heritage dive park.

Another area containing several old wrecks that can be visited by scuba divers or free divers
is located in the waters around Rottnest Island just outside Perth, Australia. There are at least 13 wrecks around the island in various stages of preservation. The oldest ship wrecked in 1842 and the youngest as late as 1984. Both on land and under the water, signs are posted about the wrecks containing information about each wreck. Several of the wrecks can easily be reached from land by both scuba divers and free divers. Because of the island’s vulnerable location, some wrecks have deteriorated significantly.

In 1733, in the vicinity of the small island of Indian Key just south of Islamorada in South Florida, the Spanish Armada ship San Pedro sank during a hurricane. The ship was one of 21 other ships headed to Spain from Havana, Cuba, with precious cargo on board. All but one of the ships ran aground. Immediately after the disaster, as much cargo was salvaged as possible and the ships that could be refloated were taken back to Cuba. The wreckage from the San Pedro was discovered in 1960. Shortly thereafter, major salvage efforts were carried out, and as a result only a large mound of ballast remains from the old ship. Instead, seven cannon replicas and an anchor have been sunk at the wreck site. These objects and an information plaque are what visiting divers can see today.

South-southwest of Helsinki, Finland, outside Gråharan’s Lighthouse, the Swedish ship of the line Kronprins Gustav Adolf sank in 1788. The ship, which was nearly 50 metres long and had 62 guns on board, was discovered in 1995 at a depth of about 18–20 metres. In 2000, the Baltic Sea’s first dive park was built. The park is marked with a substantial buoy where diving boats can moor. Visiting divers can follow descent lines that have been placed in the wreck’s bow and stern. At the bottom are twelve information plaques that tell the story of the Kronprins Gustav Adolf’s history and construction. Between the information plaques, a rope is available to help divers find their way. Visits to the site are free, but the Finnish National Board of Antiquities, who is responsible for the site, has published detailed regulations for the park.

Sweden has a purpose-built dive park that contains wrecks of cultural heritage interest – Dalarö Dive Park. The dive park, which is located outside Dalarö in the Stockholm archipelago, contains several ship remains that are classified as ancient monuments. These include the royal warship Riksäpplet, which sank in 1676, and the well-preserved Dalarö Wreck/Bodekull, dated to the second half of the 17th century, which was discovered in 2003.
WANT TO LEARN MORE?

Rörvik
kosteroarna.com/snorkelled-upptack-livet-under-ytan/

Grenada Underwater Sculpture Park
puregrenada.com/explore/scuba-diving/underwater-sculpture-park/

Cancun Underwater Park (Museo Subacuatico de Arte)
musamexico.org/

Museo Atlantico
underwatermuseumlanzarote.com/en/

Boing 737, Chemanius
artificialreefsocietybc.ca/boeing-737.html

Airbus 300, Kusadasi
activeblue.com/dive-airbus-a300-airplane-wreck/

Bahrain Divepark
divebahrain.com/

Sidon, Lebanon

Athens Scuba Park
www.athensscubapark.com/

Salling Aqua Park, Glyngøre
www.sallingaquapark.dk/

Ærøsund II
www.dyk-sydyn.dk/2-dive-spot-m-f-%C3%A6r%C3%B8sund.html?mcat=-1&caction=showspot&itemid=22

USS Oriskany
en.wikipedia.org/wiki/USS_Oriskany_(CV-34)

Aqualand, Skärhamn
www.dykarna.nu/dykplatser/sandholmen_m-v-aqualand-447.html

Elsa af Lidingö, Fjuk
www.dykarna.nu/dykplatser/vattern_elsa-af-lidingo-862.html

Benli, Lidingö
www.dykarna.nu/dykplatser/liding-o_m-s-benli-876.html

Emerald Bay, Lake Tahoe
www.parks.ca.gov/?page_id=29931

Rottnest Island, Australien

San Pedro
www.nps.gov/articles/sanpedro.htm

Kronprins Gustav Adolf
The Jutholmen wreck.

PHOTO: JIM HANSSON SMTM
From dive ban to dive park

The shipwrecks of the Baltic Sea

Throughout the ages, hundreds of thousands of vessels have travelled across the Baltic Sea, and the intensive maritime traffic has left behind the traces of thousands of shipwrecks. And thanks to the dark, cold and brackish waters, the clam Teredo navalis – better known as the shipworm – does not thrive there.

Each wreck carries its own story. Those of us who are involved with maritime archaeology at the National Maritime and Transport Museums (SMTM) are dedicated to both fieldwork and research. If we do not succeed in identifying a wreck, we can still discover much about its age and function by knowing what kind of ship it is and how it was constructed. The potential to convey knowledge and stories about our history is immense.

But, for many, this is an unknown and invisible cultural heritage. How can we preserve and develop it? How do we make people aware of it? Herein lie several challenges – as well as fantastic opportunities to get creative!
The shipwrecks of Dalarö

Dalarö is a small coastal community in the municipality of Haninge, just southwest of Stockholm. For hundreds of years, Dalarö has served as an important shipping hub to and from Stockholm. Along its waterways, ships also sailed to destinations farther north and east. Stockholm’s outermost customs station was built here in the 1630s. Pilots lived on Dalarö who helped ships find their way when they entered the archipelago from the open sea. Dalarö’s tavern was among the largest taverns in the archipelago. The naval fleet was stationed here until the 1680s, when the greater part of it was moved to the more ice-free town of Karlskrona.

So, many ships have both passed by and anchored here. And this is why there are many wrecks here, too, many of which are classified as ancient monuments.

What does the law say about wreck diving?

In Sweden, wrecks are protected under the Swedish Heritage Conservation Act if the ship wrecked before 1850. In those cases, they are then considered as ancient monuments. However, in exceptional cases, later wrecks can also be granted the status of ancient monument. People are allowed to dive on wrecks classified as ancient monuments if they behave responsibly. It is prohibited to touch, damage or remove something from the wreck.
If a wreck is judged to be especially worthy of protection and is at risk of being damaged, the County Administrative Board may decide to place a diving ban on it. In that case, it is forbidden to dive on the wreck or use a remotely operated underwater vehicle (ROV). At Dalarö, three of the wrecks are well-preserved enough and at the same time easily accessible to warrant a diving ban:

The wreck of the merchant ship Anna-Maria, built in 1694 and laden with planks and bar iron, sank on 6 February 1709 after a fire on board.

The Jutholmen wreck, which sank around 1700. The wreck is unidentified, and the name comes from its location next to the island of Jutholmen.

The Dalarö Wreck (Bodekull), a frigate built in Karlshamn (then called Bodekull) in 1660 upon commission by King Karl X Gustav. Sank in 1678.

A diving ban was imposed on the Anna-Maria and the Jutholmen wreck in 1995, and on the Dalarö Wreck/Bodekull in 2007. The County Administrative Board took this decision because the wrecks were exposed to wear and the risk of being plundered.

A diving ban is a measure that is only taken on a case-to-case basis. It can help to protect the wrecks from curious hands, but clashes somewhat with the idea that it is important to make cultural heritage accessible. What was needed was a strategy to protect even the most sensitive wrecks without restricting their accessibility.
The strategy was called the Dalarö Model, and it was developed in collaboration between Haninge Municipality, Stockholm’s County Administrative Board, the Swedish National Heritage Board and SMTM. The goal was to combine a regulated use of maritime heritage with accessibility for the general public in order to achieve long-term conservation. Work on the Dalarö Model resulted in a plan to develop a dive park at Dalarö. This would allow access, in a controlled way, to the three wrecks that had the diving ban.

For these wrecks, the solution was to incorporate them into a cultural heritage reserve – the Dalarö Marine Protected Area – managed by Haninge Municipality. The reserve itself does not have an external border, but the three wrecks have their own management zones and are

You can dive here with permission from Haninge Municipality. PHOTO: KRISTER JONSSON
equipped with buoys to prevent anchoring over the wrecks and damaging them.

In addition to these three wrecks there are several wrecks around Dalarö that are popular among scuba divers, and Haninge Municipality have set up mooring buoys over several of them. They make up part of what is known as Dalarö Dive Park, which also encompasses the cultural heritage reserve.

Prior to the inauguration of the cultural heritage reserve in 2014, together with Haninge Municipality and the Swedish National Heritage Board, we at SMTM trained experienced scuba divers to become cultural heritage diving guides. These divers can apply for permission from the municipality to dive on or guide other divers on the three wrecks. After each dive, the diver then files a report.

In December 2017, we submitted a report to the County Administrative Board indicating that the permitting and reporting system for the diving guides was successful. We could also see that the wrecks seemed to have fared well despite hundreds of visits by scuba divers. The County Administrative Board thus revoked the diving ban, which was completely replaced by the designation of cultural heritage reserve with associated regulations.
BALTACAR, an EU project

As part of the efforts to highlight the maritime heritage of the Baltic Sea and make it available, SMTM, together with stakeholders in Estonia and Finland, launched the EU project BALTACAR in 2017. Parties from both the public sector and private sector participated in the project. Its aim is to showcase our maritime heritage and make it available as well as demonstrate its potential as a tourist attraction.

In the BALTACAR project, we at SMTM have been driving efforts to make the three wrecks in the Dalarö cultural heritage reserve – the Anna-Maria, the Jutholmen wreck and the Dalarö wreck/Bodekull – accessible, primarily through 3D-documentation. Haninge Municipality, also involved in the project, has designed an exhibition that reflects its long-term efforts to develop Dalarö Dive Park.

Estonia has been working on adding signage to two wrecks and installing buoys at four wrecks from the First World War and the Estonian War of Independence. These are located in the open sea around the islands of Saaremaa and Hiiumaa.

In Estonia, diving on wrecks classed as ancient monuments must be done together with a
Creating diving experiences for all to enjoy

The methods for making shipwrecks accessible are many and, of course, can be combined to create a dive park:

• **Produce information** about the wrecks by using archives and conducting archaeological investigations where you take photos and videos to document findings. You can present the information in brochures, on the web and by using water-safe diving plates that describe the wrecks and the best way to dive on them.
• **Put out mooring buoys** so visiting ships do not anchor in the wrecks.
• **Mark the sites** with digital signage or on site at the buoys or under water.
• **Train scuba divers** as cultural heritage guides for other scuba divers (and for non-divers, too).
• **Test and develop** diving expedition packages and create infrastructure around them. And remember to consider the non-divers!
To extend your reach to non-divers, you have to think outside the box. Together with Haninge Municipality, our Swedish museum network has developed materials for non-divers, including diving videos and underwater ROVs (remotely operated underwater vehicles) equipped with cameras that show the wrecks on screens on board the boat or from land. This has been further developed by Dalarö operators, who use aids like virtual reality glasses to offer an intimate diving experience.

The 3D-documentation of the wrecks in the cultural heritage reserve created within the BALTACAR project also plays a role in making the wrecks accessible. These can be used as the basis for many different projects: as a knowledge base (people can visit the wreck over and over without ever diving under the surface), or for dive planning, animated 3D-experiences, VR and AR solutions, or research. We also gain real-time documentation of the wreck, which can be of great help in conservation efforts.

In 2020, a new museum opens in Stockholm called VRAK – Museum of Wrecks. The museum will give visitors the chance to take a deep dive into the Baltic Sea and will use many of today’s modern technologies to offer non-divers the experience of being submerged beneath the water’s surface.
Creating a Dive Park

There are many locations around the Baltic Sea that are suitable for dive parks. Through dive parks, coastal municipalities and communities can create brand-new tourist attractions. In addition to all the fascinating wrecks, there are stone age settlements that have sunk beneath the surface due to sea level changes. And why not combine underwater artefacts with other potential (or existing) attractions? For example, in Axmar Blue Park, just north of Gävle along Sweden’s east coast, subterranean cultural heritage has been linked to the natural environment as well as to old industrial remains and a popular restaurant. A dive park is also being planned in the world heritage city of Karlskrona in the municipality of Blekinge.

If your wrecks are inaccessible, or you simply want to reach a wider audience, an entire arsenal of digital capabilities is available to choose from. But the most important thing is placing the wrecks in a context, and taking advantage of the stories the wrecks can tell. Because the world underwater is different from the one on land – a fact you can use to your advantage.

The situation in Dalarö was special. There were three wrecks and a diving ban, and this dilemma was solved by creating a cultural heritage reserve, the Dalarö Marine Protected Area. Most potential dive park-developers will hopefully not need to take such a detour along their route. However, if you have special wrecks worthy of protection that you would like to highlight, a cultural heritage reserve/marine protected area is something that facilitates regulated access to the wreck.

Whichever way you choose, you need to work strategically to make your dive park a success. We will delve into that topic in the following chapters.

Discover More:

**BALTACAR**: projectbaltacar.eu/
www.facebook.com/ProjectBALTACAR/

**3D models**: sketchfab.com, search on Baltacar

**Dive parks in Finland**: www.muinaispolut.fi/sukelluskohteet

**Dive park in Helsinki, Finland**: www.museovirasto.fi/sv/kulturmiljo/arkeologiskt-kulturarv/kulturarv-under-vatten/helsingin-hylkypuisto

**Dalarö dive park**: www.dalarodykpark.com/

**VRAK - Museum of Wrecks**: www.vrakmuseum.se/
Developing sustainable diving tourism

A successful dive park is part of a sustainable destination

Most visitors to a dive park come not only to experience the cultural heritage beneath the surface, but they also want to visit a destination, a specific place, that is attractive and has plenty to offer. They need to be able to access the destination, where they expect good food and accommodations. This is why plans for a dive park must be considered in a broader context, one that analyses how the entire destination can be developed, what its strengths and opportunities are, and what shortcomings should be addressed.

We usually talk about three key factors for developing a successful destination:

1. Attractiveness and must-see appeal
2. Tourism infrastructure: living, eating, doing
3. Accessibility: physical and digital

The most important consideration when developing a sustainable destination is putting effort into a well-designed, long-term collaboration with dive park stakeholders as well as other parties operating at the destination.

ABOUT THE AUTHOR
Pia Nelson Önfelt, former global conference director at the pharmaceutical company AstraZeneca, currently works as a tourism destination consultant. Her company, Sweden by Nature, was nominated for the Newcomer of the Year award by the Swedish Travel and Tourism Industry Federation in 2011. Since then, she has led several successful projects in the tourism industry, with a main focus on rural and archipelago development. She has worked on developing Dalarö Dive Park since 2012, both within the Central Baltic project BALTACAR and the Agency for Economic and Regional Growth’s initiative for sustainable destination development in Sweden during 2012–2015. Pia serves on the board of the Stockholm LEADER programme for rural development and is a sought-after lecturer.
Test-diving in Dalarö Dive Park.

PHOTO: KRISTER JONSSON
This also includes public stakeholders, such as municipalities and government institutions – in the case of Dalarö Dive Park, Haninge Municipality and the National Maritime and Transport museums. In addition, the local business community often plays a major role for a destination and should be included when collaborating on destination development. Great emphasis should be placed on ensuring that all parties have a common understanding and a clear picture of the objectives, strategies and actions that will pave the way for successful development. This is necessary because everyone in the supply chain – providers of accommodation, food, travel, activities and shopping – should be able to contribute to development with a relevant offering. Make sure to consider each stakeholder’s contribution and drivers, and create an understanding that different stakeholders have different assumptions and interests. A situation analysis based on the three above-mentioned factors needs to be carried out, and development opportunities, challenges, resources and shortcomings need to be identified. Based on the results of such an analysis, an action plan can be developed that clearly identifies mandates and responsibilities. It is essential to maintain a focus on long-term viability and quality, but with social, ecological and economic sustainability in mind.

**RECOMMENDATIONS:**

- **Identify** the main stakeholders at the destination. Start with the dive park’s stakeholders and then broaden the perspective to include other stakeholders within accommodations, restaurants, activities, food, shopping and transport. Include public-sector, non-profit and for-profit stakeholders.
- Set clear, **common objectives** for cooperation.
- Conduct a **situation analysis**, for example through a joint SWOT activity (to identify strengths, weaknesses, opportunities and threats).
- Develop a short-term and a **long-term action plan** and clarify mandates and responsibilities.
- **Follow up** on the action plan regularly.
Creating a dive park in Estonia. PHOTO: WILL APPELEYARD

Developing sustainable diving tourism

The development of a dive park should take place with a strong focus on social, ecological and economic sustainability. The public sector as well as for-profit stakeholders are key players in development efforts and contribute in different ways to making the dive park an attractive visitor destination. An analysis similar to the situation analysis should also be conducted specifically for the dive park.

Issues that are important to answer include:

1. Which operators are included in the term “[Name of park] Dive Park”?
2. How do we establish the “[Name of park] Dive Park” brand?
3. Who are the dive park’s target groups?
4. How can we reach them?
5. How do we ensure accessibility, both physical and digital?
6. What infrastructure is necessary for the success of the dive park?
7. What does the dive park’s total offering to a visitor look like?
8. Which bookable products will the dive park offer?
9. How do we market “[Name of park] Dive Park”?
10. How do we secure the dive park’s long-term management?
During the development of Dalarö Dive Park and within the framework of the BALTACAR project, a series of workshops on different themes was arranged to answer some of these questions. In addition to the dive park’s key stakeholders, representatives from Dalarö’s hotel and restaurant industry also participated. Experts and other tourism business owners (not necessarily within diving tourism) were invited as lecturers for inspiration and knowledge transfer. The main goal of these development efforts was to encourage more diving companies to establish themselves in Dalarö Dive Park to be able to offer more diving expeditions there. As a result of BALTACAR, four companies now operate in Dalarö Dive Park, of which two companies were formed during the project.

Dive park development with the visitor in focus

Developing different opportunities to visit the wrecks in a dive park requires a clear picture of the future visitor. It will also be important to understand what a potential customer is looking for in order to ensure that the diving expeditions on offer match customer needs. As part of the development work, an analysis of the dive market in Sweden was commissioned from Kairos Future, which also included a user persona representing the European diver (the potential diving visitor).

What were some of the conclusions?

• Two-thirds of all European divers are men.
• Generally, they have a high income and are well educated.
• They often lead an active, healthy lifestyle.
• They think that sustainability and environmental issues are important.

Based on knowledge from the hospitality, tourism and leisure sectors, along with the various personas as well as diving research, three typical “diver profiles” were identified. The two most important profiles are described below.
“THE RECREATIONAL DIVER”

- Represents about 70% of all divers in Europe.
- Likes to combine diving with other cultural experiences, good food and alternative activities.
- Often looks for quirky new diving experiences.
- Travelers in this segment spend about half of their holiday time on non-diving activities.

Attracted by:
- Good quality around the diving experience
- The simple and the convenient
- A variety of good restaurants
- Opportunities for other activities preferably associated with history, culture or marine life
“THE DIVER NERD”

- Represents about 20% of all divers in Europe.
- Has taken diving courses and is a licensed diver.
- Likes to combine diving with special interests, such as underwater photography or maritime history.
- Over-represented in the age group 46-55.
- Travels predominantly alone or with other divers.
- Does not prioritise accommodation or other activities.

- Basic needs consist of a clean room, good food, a hot shower and storage for own equipment

*Attracted by:*
- Detailed, personalised communications about the diving expedition
- The quality and unique features of the offer
- Detailed information about the wrecks and their history
- Words and descriptions that would be considered “diver-speak”
Diving expeditions that attract selected target groups

To develop diving expeditions that are attractive to the target group, you should follow a process that includes the following main steps:

1. Target group analysis
2. Description of the individual (customer) in focus
3. Selection of dive package content based on analysis and description of needs and preferences
4. Test of the dive package
5. Evaluation
6. Adjustments and changes based on the evaluation

Using the analysis of the different diver profiles, suitable diving expeditions can be developed into attractive packaged products, depending on the infrastructure you can offer at the destination. The importance of communicating what the dive park is and how visitors can take advantage of its content is paramount.

As an example, Dalarö Dive Park has chosen to target dive packages to the “diver nerd”. Tailored dive packages with the “diver nerd’s” wishes and needs have therefore been the focus of the park, and Dalarö’s diving expeditions now offer both two hours of after-work dives and three-day weekend dives including food and accommodation. The dive packages consist of detailed dive briefings, with lots of information about the wrecks and their history, highly trained and experienced diving guides, fully equipped diving boats and simpler accommodations with the option to safely store divers’ own equipment. Opportunities are offered for underwater photography and the safe storage of related equipment. The park would eventually like to offer the possibility to obtain a PADI certificate for wreck diving in the Baltic Sea, and discussions are underway. All this aims to hook the “diver nerd”.

The next step in the process includes testing the dive package. Within the framework of BALTACAR, recreational divers from Estonia, Finland and Sweden were invited to experience a three-day dive package like the one described above. After the dive weekend, participants gave a detailed evaluation of all the arrangements including the overall diving experience, the guide, accommodations, food and, not least, service and hospitality. This evaluation was then used
RECOMMENDATIONS:

- Discuss which group should be the focus target group and gather information about their primary needs.
- Match these needs with the offering and ensure that the dive park can offer what it promises.
- Test the dive package with a group that represents the intended target group and ask for a detailed evaluation.
- Adjust the package according to the recommendations given in the evaluation.
- Determine pricing, booking and payment procedures together with the relevant stakeholders.
- Develop a communication plan to reach the target group with appealing offers that meet the target group’s needs. Remember to contact journalists and bloggers.

Developing different types of diving expeditions that are clearly described and priced and are easy to book is a must for attracting visitors to a dive park. Another recommendation is to put together a communication plan that identifies the target group, offering, communication channel and timetable. In BALTACAR, journalists were also invited to test a three-day dive package. This proved to be a great way not only to get feedback, but to get articles published in diving publications both in Sweden and abroad. Planning your contact with journalists, press releases and articles in relevant magazines should also be included in your communication plan.
Changes around us and trends affecting diving tourism

The following analysis and conclusions cover both consumer trends and moral trends that indirectly influence the diving industry and diving destinations, and that can play an important role in how we view destination development in general and the development of dive parks and diving tourism in particular.

1 The growing importance of personal, unique experiences

Just as experiencing another country in a more authentic way has gained in popularity, private guided tours and personalised tips are becoming more common. The story of the uniqueness we have experienced is in focus, as is its ability to impress people on social media. Instead of taking souvenirs from our travels, we are now more interested in taking home stories with us. Diving in a dive park responds perfectly to this trend.

CONCLUSION: Let the diving guide tell visitors about personal diving experiences and personalised “secret” information, unique for this particular expedition, for this very moment.

2 Community and connectedness are increasingly in focus

In an increasingly fragmented and hectic world, the need to connect with people around us is growing. A shift of values is taking place, from egocentric self-actualisation towards a sense of community and connectedness. We also want to share experiences and travel together in the digital world. We share our travels on social media and in various online forums. To succeed in developing a diving destination, it can be useful to see how an organisation’s offerings can contribute to connectedness and time together.

CONCLUSION: Offer opportunities for social interaction that also allow fellow travellers who do not dive to participate.

3 Optimising time – time and energy are the new currency

We are increasingly keen to maximise what we can get out of every unit of time. Maximal experiences, maximal relaxation, maximal workouts, and so on. People want to avoid complicated decisions, preferring to choose products and services that cater to their needs – quickly and conveniently. We want help taking decisions, yet we want to claim our space as individualists and make our own free choices. Time becomes a factor that is valued more and more while money becomes less important, even for the wallet of the diving enthusiast. This is why demand for prepackaged solutions is growing.

CONCLUSION: Give your target group just a few custom options to choose from.
A quest for the authentic and genuine

In a world inundated with advertising, information and messaging that all attempt to influence people, the desire for the authentic and genuine is increasing. Real people, real meetings, real experiences. Experiencing local culture and locally produced food can be a way to enhance and strengthen the diving experience for both local and international tourists. The wrecks in a dive park create an authentic, genuine diving experience because the wrecks are real and unusually well preserved, creating additional value for the visitor.

CONCLUSION: Include encounters with local personalities in the dive package, offer locally produced food and place an emphasis on storytelling, in relation to both the wrecks and the site.

Increased focus on sustainability

We are seeing greater investments in sustainability throughout society on all fronts. Consumers are increasingly well informed about sustainability issues and are considering them more and more. “Circular economy” is a concept that is becoming more common and is being used in companies’ product development, among other places. Simply put, the circular economy means that nothing should go to waste and that our garbage and waste should be viewed as raw materials. In diving, environmental issues have long been in focus and among many divers there is a great awareness and commitment to the environment and a thriving marine life. Several major diving organisations have launched initiatives like PADI’s Four Pillars of Change, which is based on the UN’s 14th sustainable development goal on conservation of the oceans and seas. There are also several project initiatives, such as the EU-funded Green Bubbles, that strive for a more sustainable system and business models for diving companies. Several diving forums have sustainability and environment as their themes.

CONCLUSION: Adapt all parts of the dive package to be as sustainable as possible. Give away refillable water bottles, skip using disposable items, compost leftover food and encourage the customer to provide further suggestions for sustainability improvements.

References

*How do we develop sustainable tourist destinations?* Swedish Agency for Economic and Regional Growth, Stockholm, January 2017
Developing the concept of Dalarö Dive Park

From concept to viable business

All successful projects have begun as an idea in someone’s head – even the idea of creating a dive park. Perhaps the idea came to someone in the shower or during a weekend walk. Or perhaps a new exciting wreck has been found that both requires protection and should be made available.

But moving from concept to viable business requires the participation of many stakeholders in different roles and areas of responsibility.
And somewhere along the way, these people need to be persuaded that this is an absolutely brilliant idea. Some examples:

- Entrepreneurs who want to invest in the dive park. Building or developing a business can be a major decision for a local company. Even family, relatives and friends might need to be persuaded.
- Potential business partners.
- Decision-makers, financiers, organisations.
- Journalists, ambassadors, travel agencies.
- And, not least, potential customers.

ABOUT THE AUTHOR

Johan Belin is the strategic and creative manager of Dinahmoe, a digital production agency focusing on digital marketing and communication. Dinahmoe is one of the top award-winning companies in the world in its industry, with more than 120 international awards. Johan has worked on the strategy for Dalarö Dive Park within the framework of BALTACAR.
It only takes the objections of one person to bring the entire process to a halt. Everyone must be on board (or, at least, not object to the project). This chapter is about how to create a vision that all stakeholders share and that everyone wants to see become a reality, and how to create a network where the vision can be shared and attract others to want to participate.

From abstract to concrete

Developing and establishing a dive park brings its unique challenges compared with other attractions, such as a zoo. Everyone knows what a zoo is. It occupies a physical space, you pay an entrance fee when you go in, there’s a customer information booth and so on. Compared with this, a dive park might seem abstract. A dive park has no entrance fee, no customer information booth – and people can’t even see it above the surface. If you are unaware that anything exists under the water’s surface, you will miss it entirely.

The business is usually run by several operators in collaboration, such as diving companies, hotels and transport operators. Even when the business is in full swing, there is no central point that people can call.

It is not even completely clear what the term “dive park” means. As we have seen in Chapter 1, it can be anything from an art project to an amusement park. This is why it is not obvious what someone thinks when they hear the phase “dive park”.

In order to talk about the project and get other people involved, you have to create a picture of what the dive park will be. No matter where you are in the process, the more concrete you can be the easier it is to get people on board and get the project moving forward.

The abstract can be made concrete on several levels:

- Clarifying concepts and ideas
- Developing a brand identity in words and images
- Creating a digital presence
- Creating a physical presence for the dive park

All of these components will help to make the dive park concrete and to appeal to different types of stakeholders, transforming the idea of a dive park into a viable, sustainable business. They also promote collaboration between the different stakeholders, who can work towards the same goal and increase the impact of their work.

Let’s take a closer look at each point.
Clarifying concepts and ideas

The first step is to define which values the dive park can offer, what motivates its existence. It can be the diving and the objects themselves, the stories around them or an overall experience of the dive park in general. Defining this as clearly as possible helps to create a common picture of the entire offering for all involved. This is sometimes called a mission.

Next, you need to define the vision encapsulating the desired future of the established dive park and refining the values. Your vision is like a compass that indicates the direction you are going in.

With a mission and vision as your springboard, you can develop a strategy and, ultimately, an action plan.

TO THINK ABOUT

Vision and mission can often be perceived as empty talk, some fancy words that were brainstormed during a workshop but then ended up in a box never to be used again. But this attitude misses the entire point.

Vision and mission are what you use to explain what you are doing and where you are headed – it’s no harder than that. You need them to be able to run towards the same finish line.

Spend 10 minutes defining the vision and mission. Write it down on a piece of paper, stick it up on the wall and get a feel for it. Vision and mission are not static. During the journey from concept to viable business much will change, including the vision and mission themselves.
A brand identity is the face that communicates to the public, both visually and through words. It is a marketing tool often created when establishing a business on the market, but should really be developed at the start of your project. A powerful and well-defined identity inspires confidence in you from your stakeholders and lends a serious note to the dive park throughout the process, from concept to viable operation.

The dive park’s brand identity consists of visual elements (like the logo) and messaging (communication about what the dive park has to offer). This work simplifies all future communications, and you obtain a single template to work from so that you avoid reinventing the wheel every time material is produced.

**TO THINK ABOUT**

Let’s begin here with what *not* to do: do not order a brand platform and full graphic profile right away. There are plenty of examples involving rework because the project changed so much during the process.

But don’t ignore this aspect completely. Instead, take it step by step, consider a simple graphic profile, and do some basic legwork with your messaging. Build these from the values you defined in the previous step, and let the identity evolve over time.
Creating a digital presence

We spend over 50% of our waking hours in front of a screen. For almost all potential visitors, their first contact with the dive park will be digital. A digital presence that offers inspiration is therefore necessary for the concept to become a success. And because a dive park has no delimited physical location, its digital presence becomes even more important.

The first thing someone will do when they hear about the dive park is to search for it online. It’s a fantastic opportunity for an initial contact that you should not squander.

A digital presence also connects the various stakeholders who make diving tourism possible and enables the park to be perceived as something concrete, and not just a collection of completely independent operators. A website is the most basic requirement. Social media channels also fulfil an important function.

TO THINK ABOUT

Before considering your digital presence, the basic groundwork including messaging and a graphic profile must be done. Start with a simple home page to show that the project “exists”. Keep in mind that your site should be easy to update as the project evolves and matures. Sign up for relevant social media channels even if you still lack a strategy.

A concrete presence in the physical environment

Realising the dive park in a physical environment is also important since the park is not visible above the water’s surface. You should therefore look for all possible chances to link the dive park to the physical environment. And because each site is unique, ideas on how to make this happen will vary from one location to the next.

TO THINK ABOUT

If the dive park is close to places where people normally spend time, you can set up signs or create a digital presence in the physical environment via the mobile phone. You can highlight links between physical locations and stories around objects in the dive park, e.g. if a park is named after a wreck or personality connected to the dive park. Collaborative efforts with museums and other public spaces can unexpectedly anchor the abstract in the physical.
The universe of Dalarö Dive Park

We have now looked at different ways of giving the dive park a concrete presence to stimulate the interest of other stakeholders in becoming part of the project or supporting it. As described in previous chapters, many stakeholders are involved in making diving tourism possible and successful. If you make a list of these stakeholders, you will realize that there are more of them than you think.

Dalarö Dive Park is a clear case in point. Here is a selection of stakeholders who in one way or another influence the success of a dive park (fig 1).

I call this the universe of Dalarö Dive Park. The centre of this universe is the wrecks in Dalarö Marine Protected Area and other wrecks near Dalarö, as well as Haninge Municipality, which manages the area. Then there are stakeholders who directly enable diving tourism: the diving companies and the tourism infrastructure: eating, living and doing.

The “Doing” category includes the village of Dalarö, which is a tourist magnet in itself; Dalarö Marine Park, which offers a guest harbour, water sports and other activities; and Dalarö Customs House, which contains a marine museum where the wrecks and their history are the focal point. The Dalarö Tourist Office is instrumental in communicating and marketing everything the location has to offer, including the dive park.

In Stockholm, a new museum called Vrak
Museum of Wrecks will open in 2020. As the name suggests, wrecks are the central theme and ties to the wrecks around Dalarö are strong. At Skansen, a new museum on the Baltic Sea opened in the spring 2019 called the Baltic Sea Science Center (BSSC), where Dalarö is represented.

Media, tour operators, diving clubs and other external stakeholders are also part of the Dalarö universe.

**Everything fits together**
All of these stakeholders would benefit from Dalarö Dive Park’s achieving success. There are therefore great opportunities for win-win relationships and synergies. But if you want people to be able to recommend the dive park, there must be a central point of reference. In today’s digital world, your digital presence represents this point of reference.

A compelling digital presence is therefore needed to leverage these opportunities and offer value to all parties. If we redraw the map with all possible contact points, it looks like this (fig 2).

Each arrow represents a possible communication channel that points in both directions. Your digital presence is not just a channel for getting out information like news, but for getting information in. Every time someone sees the dive park mentioned, the chance increases that they would want more information and to get more involved. An example: A visitor in Dalarö eating at a restaurant finds information about the dive park, and a visitor to the webpage finds a good place to eat. Another: The dive park’s Instagram
account announces an exhibition at the Museum of Wrecks, and at the same time the museum announces that you can actually dive on the wrecks.

Every contact with a stakeholder in the Dalarö Dive Park universe thus leads the way to deeper engagement. A win-win!

The dive park as part of a dive park network
In the long run, the dive park can become part of a network of other dive parks in the Baltic Sea. Great value lies in their being connected together.

By creating connections in the digital world, you increase the digital presence of the network as a whole – in other words, you create more ways in. Visitors are offered more options, increasing the likelihood that they will find something that suits them. Next time, they will want to try something new.

**TO THINK ABOUT**

Envisioning the dive park as a universe opens up huge opportunities for synergies and win-wins. But you must have done a good job making the dive park something concrete, and making it available in as many ways as possible in both the digital and the physical worlds.
How do you eat an elephant?

Starting up a dive park is no small matter. It’s easy to feel that all the items on this to-do list are overwhelming. But, as the English proverb goes:

How do you eat an elephant? One bite at a time.
Or, how do you run a marathon? Start running and don’t stop until you reach the finish! Easy as 1-2-3.

Here are some tips to make the marathon feel more like a walk in the park:

- **Break down the project** into components that are small enough to manage. Keep it simple.
- **Think about the order** in which the different steps should be taken. Doing something too early may mean that you need to redo your work, while doing something too late may result in lost opportunities.
- **Formulate a clear vision** so that you or someone else don’t lose your way. But remember that vision and mission are not static – they must be developed together with the project.
- **Be aware that things will change** along the way, so plan for change. It is impossible to predict everything before you start, and you do not need to answer all questions beforehand. Things will be a bit unclear at first, and this is just as it should be. Use the vision as a compass and you won’t go wrong.
- When you obtain new information, **do not lock yourself into earlier decisions.** Instead, make changes along the way and be as flexible as your organisation allows for.

Good luck!
3D-rendering of the 17th-century wreck of Bodekull, created by Ocean Discovery. The rendering is based on a 3D-model produced by maritime archaeologists at SMTM.
It is believed that there are 100,000 shipwrecks in the Baltic Sea. They remain on the seabed, sometimes for centuries, and they carry the stories about people who lived and events that took place when they were still sailing the seas.

We want to protect these unique wrecks, but at the same time make them accessible. With this inspirational handbook, we want to show how to accomplish this by developing dive parks.