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COVER PHOTO
Peter Symes
Yolanda Wreck, Red Sea, Egypt
 editorial

A light at the end of the Internet tunnel

X-RAY MAG has found a niche to fill on both the local and global on-line dive media landscape. After the successful launching of our Scandinavian edition in Danish, we are going global with our first issue in English.

In this issue, you will find stories not only from Europe, but from the four corners of the world -- from Australia to the Americas to Africa to Asia in both remote and lesser travelled dive locations as well as stunning underwater photography from emerging artists that bring the mystery and beauty of the underwater world to your laptop.

From the land down under the land down under, Australian dive writer Gary Myors, takes us on an unusual journey to Tasmania to learn about the treasures of the Tasman Peninsula. This is a story illustrated with dramatic underwater images by accomplished underwater photographer, Karen Gowlett-Holmes.

American dive writer and underwater photographer, Bill Becher, journeys to Blue Hole in Belize where divers suspend in the depths of this unique reef formation.

Danish biologist and underwater photographer, Peter Symes, takes readers to the eerie green prehistoric ecosystem of Lake Baikal in Siberia where a burgeoning Russian dive industry has sprouted organized live-aboards that trek up and down the length of this ancient lake.

PHOTO BY PETER SYMES. Barracuda Cove, Sipadan Island, Malaysia.
Egersund in Norway is presented to us in fine detail by a local. Norwegian dive writer and underwater photographer, Erling Svensen, gives us a tour of the astonishing bounty and beauty of the Norwegian fjords and waterways, which are home to pristine coral gardens, diverse marine life and historic wrecks.

In addition to feature stories about unique dive sites, we feature an emerging talent in underwater photography in each issue. Recent gold medallist of Underwaterphotography.com, Andrew Woodburn of South Africa, brings us a diverse and dynamic portfolio of his best work from South Africa and Mozambique.

Ecological perspectives and information on unique species and ecosystems are an important element of X-RAY MAG. In this issue, American fresh water biologist, Garold Sneegas, takes us on a journey to an unlikely dive site in the western end of Texas hill country in the southern United States to meet the pupfish of Balmorhea State Park.

At X-RAY MAG, we are enthusiastic about developing a truly global community and publication for and by divers of all backgrounds. We welcome your feedback and news. If you want to contribute your talents and inspiration to X-RAY MAG, email us your ideas or volunteer your services. We want to hear from you! Spread the word...

Gunild Pak Symes, Managing Editor
gsymes@xray-mag.com
About 70 minutes drive from the Tasmanian capital city of Hobart is the Tasman Peninsula. European settlement on the peninsula commenced with the establishment of a convict timber station in 1830. By 1840, over 2,000 prisoners and staff were accommodated at various locations on the peninsula with the main prison complex at Port Arthur.

More than 12,000 unfortunate souls were incarcerated in sometimes brutal conditions until the cessation of transportation from England and the closure of Port Arthur as a prison in 1877. Tourism, farming, forestry and fishing support today’s inhabitants, many of whom proudly claim convict ancestry.

“Tasmania is a secret garden at the edge of the southern ocean. Every dive in Tasmania displays an exquisite combination of lyrical beauty and the wistfully bizarre.”

-- David Doubilet
The area offers fabulous scenery; Eucalypt forests hug the massive cliffs and the few protected bays. These spectacular towering cliffs, up to 300 metres (1,000 ft.) above sea level, continue underwater and combined with the rich invertebrate life give spectacular diving attracting divers from throughout the world.

The geology of the region is primarily mudstone, sandstone, dolerite and granite that has, in some areas, been eroded to a very large degree offering huge caves, caverns and passageways.

The Tasman Peninsula, by nature of its topography, is mainly only dived by boat. Eaglehawk Dive Centre runs tours of the east coast of the peninsula from their catamaran dive boat.

Waterfall Bay is considered one of best diving areas as it is only eight minutes by boat from the jetty in Pirates Bay and offers a range of sites depending on the level of experience of the diver. One of the most popular dives for open water certified divers and above is Cathedral Cave.

Of the numerous caves that are dived, Cathedral is one of the most spectacular as it consists of a massive entrance tunnelling back into smaller caverns with many narrow tunnels and cross passages. The walls are covered with an incredible diversity of colourful invertebrates many of which are typical of deeper temperate waters. The Dive Centre provides a guide for the tour of the Cathedral Cave system.

Cathedral Dome
The boat can be moored off the walls under Cathedral Dome allowing easy access to the start of the system. The tour leaves the surface and descends to the bottom below the magnificent Cathedral Arch. The maximum depth during the...
dive is 21 metres. From the arch, the group is lead down the Aisles to the entrance of the Catacombs. This is an area of tunnels that are just big enough for one diver at a time. Once inside the main chamber, the guide then leads divers through the labyrinth to what is commonly called The Back Door.

Retracing the passage to the exit point of the Catacombs, divers find sunlight streaming down into the entrance of the passage to Revelation Bend. This is one of the most awesome underwater views that most divers will ever see. Known as the Skull Cave this view is featured with other photos in David Doubilet’s article, “Beneath the Tasman Sea,” in National Geographic Magazine in January 1997. The narrow passage up to the bend is dark and barren with a gravel bottom. When the guide stops at the bend, he signals divers to turn off their lights and swim past. The cavern, with two huge eye holes looking out into the light beyond clouds of bull’s-eyes darting to and fro, takes most divers’ breath away.

At this stage of the dive, we turn away from the light and head into the Devil’s Tonsils, which is a tight passage with an upward curve at its end that requires careful negotiation. This pass usually ends the tour of the cave system, but the dive is not over.

The walls below Cathedral Dome have some of the most spectacular displays of jewel anemones and golden zoanthids found anywhere. They give the impression of an underwater garden in full bloom. Karen Gowlett-Holmes, a local marine biologist and international award winning photographer, has been studying and photographing these impressive walls of endemic sponges, asidians, anemones and bryozoans for many years, and she is still discovering species new to science. Even if cave exploration holds little attraction for a diver, the color and diversity of the marine life in the caves and on the walls is a naturalist’s and photographer’s paradise.

Waterfall Bay
Two of the main diving areas in Waterfall Bay, including the caves, are listed for consideration in a marine reserve, and they have already been zoned as net free areas. This has helped the fish life in the area increase in both size and numbers over the last few years. Hopefully, they will be completely protected in a marine park in the not too distant future.

In addition to cave diving, there are also possibilities...
Tasmania

for wreck diving.

The “SS NORD” sunk in 1915 without loss of life after the officer of the watch failed to follow the captain’s orders to stay outside the Hippolyte Rocks. Charts had not been upgraded since the needle rock that lies hidden beneath the surface between the two rocks had claimed the “SS TASMAN” in 1883. The “TASMAN” was only rediscovered in 1998 lying in 72 metres of water. The “TASMAN” has only been dived successfully on four occasions as the site is exposed and subject to fierce currents and mixed gas diver certification is required.

The “NORD” is a popular dive for holders of Deep

Rays of sun pierce a narrow chamber of the Bay Caves.
A seadragon hangs suspended among towering fronds of giant kelp.
Diver certification as she sits upright on a coarse sandy bottom in 41 metres of water. Some of the stern section is still intact and the boilers and triple expansion steam engine are accessible in the mid ship section. The fish life on the wreck is quite spectacular with large schools of endemic Mendesoma darting and weaving about the divers bubbles. Sections of the hull and the rudder offer colourful displays of golden zoanthids and sponges. It is not uncommon to see opened basketstars at this depth. Divers have had regular encounters with a resident Sunfish Artefacts such as brass fittings and china crockery can still be seen about the site. As the artifacts are protected under the Australian Historic Ship Wreck Legislation, divers are encouraged just to look, not touch.
Basket stars on sponge.
Golden zoanthids

Tasmania

Nearby in the back of Fortescue Bay is the small wreck of the “WILLIAM PITT,” which is suitable for divers with limited experience. Fortescue Bay also boasts substantial kelp forests of Macrocystis pyrifera, which are home to seadragons and sea horses.

Seadragons are only found in southern Australia and are remarkable animals that are usually only found after careful searching. Their color and shape have them often mistaken for a piece of floating kelp. It is only when a beam of a light hits them that the spectacular colors of the animal bring the piece of flotsam to life as a fish.

Macrocystis is the second fastest growing plant in the world, and in winter when it is at its healthiest, it grows at an incredible 40 cm per day. It was once found colonizing the full length of the east coast of Tasmania growing from depths up to 25 metres, but it is now only found in the quiet bays of the southeast. It is assumed that the plant’s disappearance is due to global warming.

There are many more sites to challenge divers of all levels. Information about sites and diver operators can be found on www.divetasmania.com.

World famous underwater photographer David Doubilet, with over 60 articles published in National Geographic Magazine, rates Tasmania...
Tasmania

as his No. 2 favorite dive destination in the January 2004 issue. David has visited Tasmania four times and hopes to return again in the not too distant future.


Becca Saunders’s new book “Top Australian Dive Sites” features two Tasmanian destinations. This book has a place in every serious diver’s library. Here is what she and Mark Spencer had to say about diving the Tasman Peninsula:

“Without doubt, one of our very favorite diving destinations in Australia, providing wonderful surprises every time, is the Tasman Peninsula. The Eaglehawk Dive Centre has made all our trips there most enjoyable.”
Tasmania covers a land area of 68,332 sq km (26,383 sq. miles). Its terrain ranges from mountains, lakes, rivers and waterfalls to dense rain forest. Tasmania has over 2000 km of walking tracks and 18 national parks. The Tasmanian Wilderness World Heritage Area covers 1.38 million hectares.

Of all the Australian capital cities, Hobart has the nation's second-lowest rainfall (626 mm or 24 inches). The average summer temperature is 21°C (70°F). Winter's average is 12°C (52° F).

The population of Tasmania is 472,000. Main centers are Hobart (the capital city with 195,500 people) Launceston (98,500) Burnie (18,000) and Devonport (25,000).

Australian Dollar (AUD$)

English

Colorful sponges, anemones, lots of seaweed including giant kelp forests. Dive comfortably all year in a 7mm wet suit.

220-240V AC, 50 Hz. Plugs have three flat pins. A socket converter can be bought for approximately $8-10 AUD.

Tasmania Tourism
www.discovertasmania.com.au

Eaglehawk Dive Centre
www.eaglehawkdive.com.au

Port Arthur Region
www.portarthur-region.com.au
We jump into the water as a pair of bull sharks swim past. As we descend into the depths of the Great Blue Hole off the coast of Belize, the light slowly dims. Bubbles from our regulators form silvery plumes that cascade to the surface.

I face the limestone wall to stay oriented. Otherwise, I would be floating in a featureless void - except for the Nassau groupers and an occasional shark that slowly circle in the gloom. For no apparent reason - perhaps because they’re messing with our minds - some of the fish swim on their sides.

At 60 feet (18m), there is a noticeable thermocline as we descend into cooler water.

When we reach 110 feet (33m), we see giant stalactites hanging from a limestone ledge. Slowly finning, we pass them in what amounts to a topless underwater cave. Because so lit-
little sunlight penetrates to this depth, we don’t see much evidence of life. Below us is a purple emptiness.

Jacques Cousteau popularized this dive after he anchored the Calypso here in 1972 and explored the Great Blue Hole. During the Ice Age, the hole was above sea level and part of a complex of underground caves. The roof of the hole collapsed. As the ice melted, the seas rose more than 300 feet (91m) and the cave became a sink hole 1,000 feet (300m) across and more than 400 feet (122m) deep.

Seen in an aerial photograph, the Great Blue Hole looks like an eye - an unblinking, perfectly round blue iris in the midst of a coral reef. Not surprisingly, the Great Blue Hole has become Belize’s most famous dive site.

Belize, formerly known as British Honduras, is a tiny country wedged between Mexico and Guatemala below the Yucatan Peninsula on the Caribbean side. It is protected by the second-largest barrier reef in the world, after Australia, making it a prime site for divers and snorkelers.

The Great Blue Hole is at Lighthouse Reef, the outermost of Belize’s three coral atolls about 60 miles (96 km) from the mainland. I was diving with Turneffe Flats Lodge, a fly-fishing and diving resort.
Non-divers came along for this adventure. They were able to snorkel the colorful reefs surrounding the Blue Hole and then visit a nature sanctuary.

Before our dive, Juan Vasquez, our dive master, sketched the Blue Hole on a white board and went over the dive plan and cautioned us about the hazards of deep diving.

The Great Blue Hole pushes the limits of sport diving. Divers descend to 130 feet (40m) or more, where the stay is limited to eight minutes to avoid decompression sickness.

Nitrogen narcosis, also called "rapture of the deep," often affects divers who venture below about 120 feet (36m). It's not unpleasant for many, like the buzz from a three-martini lunch. But "narced" divers have been known to die doing foolish things, like taking their regulators out of their mouths and handing them to fish.

Vasquez reminded us that good buoyancy control is essential in diving the Great Blue Hole. At about 60 feet (18m), water pressure causes divers to loose buoyancy. Without adding air to our buoyancy compensators, we could free-fall toward the bottom, over 400 feet (122m) down.

And of course you can always just run out of air. At 130 feet (40m), divers breathe five times as much air as on the surface - and it goes quickly. Vasquez dangled a spare tank and regulator 18 feet (5m) below the dive boat to make sure we would have enough air to make a five-minute safety stop at the end of the dive.

Despite the hazards, virtually all divers dive the Blue Hole.
Divers rest and allow nitrogen absorbed during the 130 foot plus (40m) dive at the Great Blue Hole to dissipate on Half Moon Caye, site of a nature reserve and nesting area for red-footed boobies and frigate birds that nest on the island.
Hole safely. It is protected from currents and provides a safe learning environment for deep dives.

On the way back to the surface, we saw a spotted moray eel while the bull sharks circled past. After our safety stop and surfacing, we needed to take a long break to allow the nitrogen in our bodies to dissipate.

Our dive boat took us to Half Moon Caye, which looks like everyone’s vision of a tropical island: white sandy beaches with swaying palm trees and a patch of jungle inhabited by green and spiny-tailed iguanas.

We enjoyed a picnic lunch and a short hike through the jungle to a reserve for the nearly extinct red-footed boobies and more common frigate birds. An iguana gave us a stony gaze from its perch in a tree.

A ladder provided access to a viewing platform at treetop level, where we saw nesting boobies and frigates. It was mating season, and the male frigate birds inflated bright red neck pouches to impress the females. The frigates wheeled over our heads, came in for awkward landings and panted in the steamy heat as they sat on their nests.

After the break, the snorkelers explored the water from shore while the boat took the scuba divers to a classic wall dive where we saw pristine coral, giant sponges, lobsters, purple sea fans and too many kinds of fish to list.

We cruised through underwater tunnels in the reef as colorful parrotfish filled the water with grinding sounds as they nibbled at the coral.
One of the divers, Rob Greene of Costa Mesa, said he counts the Great Blue Hole and surrounding water as one of the top 10 "must-dive" spots in the world. He was blown away by the variety of sea life and the pristine condition of the reefs.

The boat picked up the snorkelers, and we went to our final dive and snorkel spot: “The Aquarium.” Here in the shallow water, Vasquez opened a bag of bread underwater and was quickly surrounded by colorful yellow-tailed snappers.

I didn’t pass them my regulator. They seemed to be breathing underwater without any help.

IF YOU GO
There are many scuba diving operations in Belize - based in Belize City or Ambergris Caye - that visit the Blue Hole. Turneffe Flats offers saltwater fly-fishing, scuba diving and marine ecotourism for up to 16 guests at a time. Air-conditioned beach front cabins, proximity to unspoiled coral reefs, personalized service and small dive groups are part of the charm of this intimate resort set on a tropical atoll. Dive instruction is available on site. Information: (800) 815-1304 or visit www.tflats.com.
Geography  Area 22,963 sq. km (8,866 sq. miles)  Belize lies south of the Yukatan on the eastern shore of Central America and borders the Caribbean Sea. Mexico lies to the north and west of Belize. Guatemala lies on the western border of Belize. Capital: Belmopan (pop. 4,500).

Climate  Subtropical 10°C (50°F) - 35.6°C (96°F); Rainfall averages 1,295 millimetres - 4,445 millimetres. Dry season: February to May.

Population 170,000. Creoles 30%; Mestizos 44%; Garifuna 7%; Maya 11%; East Indians 2.1%; others include Caucasians 8%; American, Arabian, Lebanese and British.

Languages  English (official), Spanish, Maya, Garifuna (Caribbean). Fifty-eight percent of the population is under the age of nineteen.

Currency  Belize Dollar (Bz$).

Electricity  110 Volts A.C. as in the United States. Most power provided by Diesel/Generator Sets.

Health  Potable water is available in Belize. When in doubt, drink boiled or bottled water. Belize City has a well staffed hospital and several private doctors. District towns and larger villages have hospitals or clinics. Inoculations are not required for entry, however anti-malaria tablets are recommended for long trips in the jungle.

Diving  The barrier reef of Belize has been named one of the Seven Underwater Wonders of the World. Water visibility often reaches 100+ feet (30m); water temperature is approximately 80°F (27°C); calm waters most of the year. Dive options: offshore resorts, live-aboard boats, charter boats from several dive resorts on the coast.


Dive Operators  www.tflats.com

Web sites  Belize Tourism  www.travelbelize.org
YOUR GATEWAY TO THE WORLD'S BEST DIVING
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Sulawesi
Papua New Guinea
Australia
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CLICK HERE
Diving the Norwegian Fjord

Being the sole natural harbor between the Norwegian coastal towns of Hitra and Stavanger, Egersund has since times past been visited by ship traffic resulting in a very exciting area for wreck divers. But also those explorers who treasure the natural riches of the deep will find much to enthral even the most seasoned of divers here where the Gulf Stream nurtures the abundant plant and animal life.

Egersund is a picturesque town with old wooden houses. It is situated between the mountains of Varberg and Kontrari at the mouth
The ocean spreads itself out after only a few minutes’ boat ride through the archipelago. There is a full range of sites to choose from. The visibility is usually excellent, but the wind can shake up the ocean and make for quite a swell. In which case, it is very fortunate that Eigerøy lies where it does. It is always possible to dive on one side of the island or the other. Usually, the winds blow from the northwest or southeast, and in these cases, it is easy to find good diving spots on either the north or south side of the island.

In 1666, the joint kingdom of Denmark and Norway joined the war on the side of the Dutch against England. The Danish king sent a group of navy vessels on patrol along the coast to prevent attacks by the English. The flagship was the frigate, Norske Løve, which was also the royal warship.

Later, the Octopus Dykkeklubb opened its doors at the beginning of the 1980s. These two clubs now conduct their activities in a peaceful coexistence.

On land, nature is tough and crude. Below the surface, about the same criteria applies. Here, one can find wall diving, caves, wrecks, kelp forests, fish life and everything else a curious diver may want to see.

The history of diving in the town began in earnest in the early 1960s when Egersund Frømandsklub [frog man club] was founded. The club folded a couple of years later, but in 1974, Egersund Dykkeklubb [diving club] was founded.

The diving in Egersund is simple. The open ocean spreads itself out after only a few minutes’ boat ride through the archipelago. There is a full range of sites to choose from. The visibility is usually excellent, but the wind can shake up the ocean and make for quite a swell. In which case, it is very fortunate that Eigerøy lies where it does. It is always possible to dive on one side of the island or the other. Usually, the winds blow from the northwest or southeast, and in these cases, it is easy to find good diving spots on either the north or south side of the island.

Norske Løve [Norwegian Lion]
In 1666, the joint kingdom of Denmark and Norway joined the war on the side of the Dutch against England.

The Danish king sent a group of navy vessels on patrol along the coast to prevent attacks by the English. The flagship was the frigate, Norske Løve, which was also the royal warship.

In October, the fleet sought shelter from the autumn storms behind Eigerøy. During a storm with gale force winds, the frigate tore loose her anchor ropes and drifted towards the coast. She ran aground at Midnesodden and sustained severe damage.
The crew was successful in towing the ship into a bay, which was later named the Austre Løvebugt, or eastern Bay of the Lion. Here, the sailors wintered. “Norske Love” foundered in the bay and was discovered in 1980 by divers from Egersund Dykkeklubb. One of the cannons was raised. Once it has undergone preservation, the artifact will be offered to the town of Egersund as a gift.

If one dives in the bay today, there are only a few traces to be found from this once proud vessel of war. A few cannons, cannonballs and iron rods are the only indications that the tale of the royal frigate is really true.

**Shipwrecks**

From the time when “Norske Løve” was lost to present day, there were many other ships that wrecked in the area outside Egersund. From the dramatic shipwreck of the proud “Hartlepool” in 1888, where 17 lives were lost, to the “MS Landans” shipwreck in the 1950s, to the “Elgry” and “Hardangerfjord II” wrecks in the 1980s, there are count-
less possibilities for good wreck dives. It may prove useful to ask the locals for an exact position, but the best option is to go with some of the local divers. With a base in Egersund, it is also possible to reach the famous wrecks of "Dresden" on the island of Karmøy and "Gudrun" in the nearby Flekkefjord.

On sunny days, diving on the tugboat “Argentina” out at Merre is a good choice. The nature furthest out to sea is the most dramatic and beautiful with vertical gullies, big boulders and incredible fish life – it is absolutely worth a visit. About half a mile to the east beneath Nodland, the war-wreck, “Eros,” can be found. The ship is shattered, but at the depth of 15 meters, one can find anchors and other wreckage.

Further in, we find the island of Skarvøy. There is a wreck here, too. It is a schooner, which was lost in the mid-1800s. The story about this shipwreck is unbelievable. One of two treasure chests of gold was salvaged by the ship’s crew. However, the second chest of gold, the captain and the ship disappeared in the abyss. Today, only two big anchors over three meters long, can be seen lying at a depth of 25 meters. So one day, if you feel lucky, maybe...

Skarvøy

Skarvøy is mostly renowned for its fabulous nature. Local fishermen have christened the vertical cliff along the southwest end of the island as the Skarvøyvæggen (The Skarvøy Wall). It is a vertical wall that plunges from 15 meters down to a depth of approximately 50 meters. At 25 meters, there is a large overhang that is covered by sea lilies, sponges, dead man hand coral and sea anemone.

On the southern corner, there is a tunnel directly into the rock, and at 3 to 5 meters depth, there are bog hollows at the bottom. On the west side, there are huge boulders. They start...
Egersund

on land and continue under the surface. The growth of attached life is abundant and diverse, and so is the fish life between the rocks. Big ballan wrasses guard their preserves zealously, and scores of small flounders lie on the bottom. Here, there are also lobster, sea eels and crabs.

There is no need to go further out than Skarvøy for good diving. However, a little further to the north, one finds Pelaberget where nature, if possible, is even more impressive. From the surface, the rock face plunges vertically down to meet a large overhang at 20 meters. There is a big boulder here that you can swim under. Once under the boulder, the cliff is hanging overhead. If the visibility is good, one can experience the sensation of hanging suspended like plankton between the chalk-white bottom 50 meters down and the overhang at 25 meters. A few hundred meters further into the fjord, the island of Lyngøy is situated. Here too, there are good possibilities for excellent wall diving. There are boulders here that fell into the little bay during the Ice Age. They create a roof overhead as divers journey inward along the bottom. The possibilities are rife. The best diving is obtained by boat, but it is also possible to make great dives by car.

Fish and biology

At Egersund, the Gulf Stream sweeps by very closely to the coast. It has a very positive influence on the fish life, which during summer months, can be quite abundant. Especially during the late summer and during the autumn, it is possible to observe diverse fish life and a large number of angler fish. A large amount of coal fish, ling, wrasses and Norwegian pout can be seen here, too.

Underwater hunters can find good possibilities to catch local delicacies. Photographers can enjoy good opportunities to capture dramatic underwa-
**Egersund**

Nudibranchs can be seen in large numbers all year round.

Even in the fjord under the Eigerøy Bridge, there is an abundance of sea life. There are different species of shells, cockles, conches, mussels and brittle stars as well as smaller animals such as kelp fleas and hermit crabs, which thrive in the current under the bridge. This site is accessible year round and can be easily reached by car.

In the outer parts of the archipelago, the ecology changes dramatically. Divers find all sorts of hydroids and asidians as well as cup corals and feather stars. With careful observation, it is also possible to see rarities such as dogfish or rays. Most of the sites can be reached within 30 minutes by car or boat.

**Topside**

If you need to gas off, there are plenty of other activities to enjoy. The town has a variety of shops with everything from big supermarkets to cosy pedestrian streets filled with small boutiques.

Egersund has a long standing tradition for ceramics. Most connoisseurs will recognize Egersund Fayancenfabrik, which closed down in the 1970s. Today, many of the factory’s products can be purchased at the local terra cotta manufacturer who took over the moulds after the establishment closed its doors.

For historical perspectives, the Egersund and Dalana Folk Museum offers a lot of interesting information on the shipping industry, and the 120 year long production history of Fayancen can be seen at Egersund Fayance Museum.

The hiking routes outside town have something for everyone. In 1995, the area around Øglend was designated the most beautiful hiking area in Norway. For scenic routes by car, touring around Lysebotnen is highly recommended. From 1000 meters altitude, the road twists and turns down the mountain side to sea level. The trip may be combined with a dive in the fjord. For those who like wandering, it is possible, by the same road, to reach “Kjerag.” Here, one will find the famous...
feature

Egersund

A diver explores the fronds of wide-bladed sea weeds curling and swaying with the current.
A diver shares a moment with a large grouper resting on the reef.

**Accommodations and refills**

Egersund is situated approximately one hour's boat trip south of Stavanger. The distance to Oslo is 7-8 hours by car. The town has ferry connections to Denmark all year. The nearest airport is Sola at Stavanger, but it is recommended that divers arrive by car. There are no dive centers in the area, so all diving must be self-sustained or assisted by the local dive community, i.e., Egersund Dykkeklubb. The diving season is year-round. There is virtually no ice or snow, and visibility is best during the winter months, but can also be excellent during the summer.
Hi Mom

Now you can always ring home no matter how far out on the sea your diving tours take you. PADIs Travel Network has made a deal with WWC, where travelling dive instructors and divers can loan an Iridium satellite phone.

As long as you can see the sky, you’ll be able to use the phone over the whole planet with no dead zones, geographical borders and no roaming charges, according to PADIs international homepage.

You can rent the phone on a weekly basis. The calling charges are a fraction of current international rates. The offer includes ten minutes free talk time. PADIs professional employees get 20 minutes free talk time. The telephone comes encoded with speed-dial numbers to PADI. Divers Alert Network (dive insurer DAN) and WWC’s customer service. Link: Detailed info - PADI

Harness

Scubapro’s new weight belt gives divers optimal distribution of weight. There are four weight pockets: two in the back and one on each side. The side pockets are made to allow dumping of weights in emergency situations. Side pockets can hold up to 5kg each and the back pockets can hold 2kg each.

The harness has broad shoulder straps that are padded and ergonomically designed for more comfort. The straps are fastened with a swivelling buckle which enables easy removal of the harness. It is equipped with additional D-rings. Scubapro’s harness is made for diving in dry suits, spear fishing and for divers who are looking for more comfort in weight distribution than is offered by conventional nylon weight belts. Available in M and L sizes. Priced around 154 € / $195 USD. The weight harness can be ordered from Dykkercentrets E-Handel

All power to the Net

Now you can take your theory courses on the Net. At Scuba-training.net, they offer a series of on-line courses ranging from open water advanced specialities such as dry suit, wreck diving and many others. Prices start at $49.99 USD for the specialty courses whereas the theory course of basic scuba amounts to $85.95 USD. According to the site, the idea behind the offer is to enable the students to acquire the theory part of courses at their own pace, so it can more easily fit into their busy daily schedules. Dive instructors and dive centers can then be relieved of time consuming theory class sessions and can focus on the practical part of the dive training courses. Instructors have access to on line files of their students exams and results. The stance of other diving education organizations has not yet been stated as regards to this type of educational venue.
ATOM
What do you think about an air-integrated dive computer that is not larger than a wrist watch and can change between three different gas mixtures? On Oceanic’s web site, divers can sign up to be the first to purchase this new computer and perhaps win a T-shirt. Oceanic does not make direct on-line sales but you can find your nearest distributor on their locater page. In addition to changing between gases, it can receive information from three different wireless transmitters. It has all the usual watch functions such as stopwatch, alarm, count down, alternate time zones, depth and time alarm as well as a logging function. It comes with PC-software, log book and USB. Watch and transmitter are priced around 752 € / $950 USD. See www.oceanic.com

New GAP
The popular decompression software, GAP, Gas Absorption Program, is out in a new version which can be downloaded from their web site and used free of charge for 14 days. The program, which used to be totally free of charge, must now be purchased at various prices depending on whether divers use it for recreational or advanced technical diving purposes. Proceeds from sales go to further development of the software. This program was the first to provide a visual model of the gradient factor principal, which was developed by Erik Baker. Based on a license for the Reduced Gradient Bubble Model (RGBM), GAP has developed the new GAP-RGBM software which simultaneously calculates both RGBM and Buhlman-based profiles on the PC. The program calculates decompression profiles for air, nitrox and trimix blends for both open and closed circuits (rebreathers). GAP: Download and info

Gotcha!
Why do sharks attack humans? How many have occurred off the Pacific Coast? Are some months more ‘sharky’ than others? Are some places less or more likely to have Great White Sharks that might be inclined to take a bite out of you? Are humans attacked because they look like a seal? What are the odds that you might be attacked? If attacked, will you survive? These questions and many more are answered in Scientia Publishing’s new trade book “Shark Attacks of the Twentieth Century: from the Pacific Coast of North America.” Based on eyewitness accounts, the reader is offered a direct insight into what happens when these awesome predators attack. 296 pages, 112 maps and illustrations. Seen on-line at Scientia Publishing for $60 USD / 47 €.

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ICE
Diamond Ice is the new balance regulator from Seac Sub. A newly developed dry anti-freezing system on the compact first stage makes it possible to use this regulator under the coldest conditions. There are two high pressure ports and four low pressure ports of which two are angled downwards in order to streamline the hose arrangement. The second stage is equipped with both pre-dive and dive adjustment buttons which allow for an incredible ease in breathing in all conditions. Both buttons are big, accessible and easy to operate even with big gloves on. Available with 200 bar yoke or 300 bar DIN. Priced around 437 € / $553 USD at Dykkercentret.

Proff 5
Seac Sub’s new five-fingered glove is made with a new super flexible 5mm neoprene that is very comfortable and breathes well. It is available also with a new inner lining called Firedry. The gloves are as soft as velour and easy to put on. They dry quickly and are equipped with smooth skin cuffs to hold water out and warm in. Priced around 40 € / $50 USD. They can be ordered from Dykkercentret.

New Gap: Download and info

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Underwater Kinetic LED light

Sunlight C8 eLED Dive Light is the new offer from Underwater Kinetics, who state on their website that their new LED outlasts any of the solid light torches commonly used by today’s divers. With an average lifetime of over 5000 burning hours, the LED-diodes demonstrate reliable performance. The torch produces light of a similar color to daylight and can perform to a depth of nearly 165m (500ft.)

www.uwkineletics.com

Now with USB stick

DiveTool, Leatherman or Swiss army knife... most divers carry around some kind of tool. But as we carry more and more gear with us into the water and our laptops to log dives on trips, we need something a bit smaller and lighter with a key to cyber space. The answer is here: a classic Swiss army knife equipped with USB memory stick of 64MB or 128MB. Priced around 54 € / $68 USD.

www.victorinox.com

Dive ‘n roll

Scubapro’s new dive bag holds 145 liters. It's subdivided into three bags, which all can be used separately. The main bag has a trolley and a bottom made of hard plastic that protects equipment. There is a telescope handle and two big roller blade wheels. The big opening for the main bag makes it easy to pack, and the big wheels make it easy to roll over all types of surfaces. The bag comes with several handles, so there are choices as to how you can carry it. Priced around 235 € / $297 USD. The bag can be ordered through Dykkercentrets E-Handel

Canada

Some of the most exciting cold water diving can be found in Canada and therefore it is natural that a new Canadian dive magazine has come along. Behind the quarterly, “Scubapress,” are the buddy pair, Robert Choquette and Marilyn Griffiths, who previously ran a ski magazine.

www.scubapress.com
A real underwater-scooter

With your head up in "the dive helmet" there is no need for any regulator or mask, nor tanks nor lead weights, which are placed on the scooter rather than on your back. The animal moves at 2.5 knots, and the battery lasts up to 90 minutes on a charge. Air lasts approximately one hour in shallow water. The weight of the scooter is 25kg and is intended to be lowered into the water from a davit. The motor provides 35 pounds of thrust. Link: Scubadoo

Nemo is the name of Mares’ latest bid for the combination dive computer–wristwatch. The new computer has four modes: Air, Nitrox, Bottomtimer, and Free Diving. In Nitrox mode the oxygen percentages can be set in increments of 1% between 21 and 50% and max pp O2 between 1.2 and 1.6 bar. The computer make use of the Mares-Weinke algorithm and inserts deep stops when diving deeper profiles. The rate of ascent is shown both in analog and digital. It also comes with four altitude modes, adjustable conservatism and hence the built in safety margin. Mares’ Scandinavian distributor informs that these units may be on back order due to high demand www.cbm.se

Steady grip

Who hasn’t tried having a tank slipping loose and dangling by the hoses? The new Bio-Tank Lock can secure a diving tank in seconds with little effort and up to ten times more tightening torque than any conventional tank lock on the market today. Quick and easy to install on any BCD. Adjustable nylon strap is 33”/84cm long to fit standard and extra wide tanks with ten times more torque for a tighter fit. No more struggling to get the strap tight and the buckle clamped down. The spring tension knob extends for easy adjustment. Even with heavy gloves on, it takes minimal effort. Just turn the knob and lock... no more re-threading. Seen at $75 USD / 59 €. Link: ApolloSportsUsa

DVD-divemagazine

Fathom is another new dive-media. It is a periodical quarterly DVD designed as a magazine. (Now, does that sound familiar or…?). In their press release, Fathom writes that their media is made by divers for divers and they really depend on your input. Become a registered user and take part in competitions, earn exclusive discounts and help FATHOM to become your premiere video-based diving resource. FATHOM no. 1 travels to the tropical East African coast to explore the stunning marine life of Tanzania’s islands: Zanzibar, Mafia and Pemba. More than 90 minutes of underwater footage is included on this disk. A special feature provides subtitles identifying species that are shown in the movie. Priced at £ 19.95 / 29 €. Link: www.fathomdvd.com
A step-by-step guide to Underwater Video

UW Videographer?
A good introductory guide to shooting video underwater always comes in handy. A step-by-step book about underwater video has been written by a couple of experienced gentlemen, John Boyle and Fionn Crowe Howieson, who run the company Shark Bay Films. They have made 14 underwater documentaries and Boyle won the award for British Underwater Photographer 2001. This book covers most aspects of underwater videography from considerations that need to be made prior to purchase of any equipment to how to produce a movie and selling it. The book is quite an entertaining read as it is full of personal anecdotes about the valuable trial and error lessons that the authors experienced themselves. In this book, you are served a whole buffet of tips and tricks, valuable lessons and insider knowledge. 128pp. Priced at £25 / 36€. Spotted at: Fourth Element

Ahhh....P-valves
Many male divers have learned to appreciate Halcyons P-valves and treasure them as some of their most valuable pieces equipment. With Halcyons ‘relief-valve’ divers can avoid certain health problems and DCS associated with dehydration. There are two types of p-valves: balanced and unbalanced. Both units are similar in design. A hollowed out screw allows for venting the suit through a condom catheter. See www.halcyon.net

Dry feet, anyone?
Is this the gift for the man who has everything or what? Subeo, a specialised engineering company, has created the world’s first underwater sports car, the Gemini. It is a mini-submarine designed as a recreational vehicle and able to descend to a depth of 50 meters. This is the maximum depth at which it is possible to dive out of the sub and escape by the means of scuba gear in the unlikely case that the submarine gets stuck. The mini sub is fully equipped like its bigger brothers: surface buoyancy tanks, trim tanks, lead trim, lead acid batteries, life support systems, front and rear hydroplanes, a rudder and a very sophisticated control system. Its estimated forward speed is 4 - 6 knots. Life support systems consist of oxygen flask and a metering valve sufficient enough to keep 2 persons in the craft for 30 hours. CO₂ is removed by a CO₂ scrubber. Link: www.subeo.com

Dolphin chocolate
Or rather, chocolates with dolphins, turtles and other endangered species on the package. The ‘Endangered Species Chocolate Company” informs us on their web site that at least 10% of the profits will be donated to the protection of endangered species. Whether that will make you feel better is not for us to say, but the chocolates are produced with the finest organically grown produce from sustainable agriculture and without use of child labor. These sweets can be purchased on-line, and it is possible to make your own mix of species. Price for a box of 12 bars of chocolate: $27 USD / 21 € not including shipping. Link: www.chocolatebar.com
Das Boot

DVD with 5 hours from the German mini series.

Many of us know Wolfgang Peterson's realistic and compelling war film from the 1980s that gave us dark and detailed insight into the horrible and claustrophobic reality aboard submarines in which the Germans lived and died during World War II. It was one of the few war movies that had German soldiers in the hero's role. The story follows the German U-boat, U-96, one of the infamous gray wolves, on one of its missions. The film portrays very realistic scenes of life aboard the vessel and the constant fight between life and death, endless hours with claustrophobic boredom and the sudden violence of facing the enemy.

Columbia Tristar distributes the original edition of Peterson's film as a series of six 50 minute episodes, 293 minutes in total, on DVD. Approx. retail price: $40 USD / 32 €. Release date: June 1st, 2004. Order through Amazon.com

DPlan

If you are the lucky owner of a Palm Pilot, you can now download the decompression software Dplan from GUE's web site. The program is designed to be user friendly and intuitive as well as easy to use on a swaying boat. The program is designed to compliment the larger decompression programs such as GUE's Decoplanner which divers use on stationary PCs. It comes with the following features: 2HL-16B algorithm, variable gradient factors, shifts easily from metric to imperial altitude, range plans, multi-level and repetitive dives, various gas mixtures and decompression mixes. Priced at $59 USD / 47 €. Download at www.gue.com

Manta-Bite

Who else but an American diving dentist could invent and make a big splash out of a new mouth piece? This mouth piece is different because divers don't bite down to keep it in their mouths. Instead, it is kept in place with the diver's cheeks thereby reducing jaw fatigue and headaches from clenching teeth. It may even save the unconscious diver from losing air due to a disengaged regulator released as jaws relax.

Manta-bite comes with a 30 day return policy and can be ordered on-line. Price:  $39.95 USD plus $6.00 shipping inside the USA. See details at www.manta-bite.com

12Gb

How many underwater photographs can you store on a 12 GB memory card? Most dive trips log up to a thousand jpeg images, so this card can handle even the longest of dive tours. Protec hopes to get this hefty memory card out on the market by next year. The price is a bit hard to swallow at 1345 € / $1699 USD, but is expected to fall quickly as other models by competitors enter the market. www.protec.com

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Blade Runner fish
In the 1980s science fiction film, Blade Runner, it was a status symbol to have genetically engineered creatures. The real animals were virtually extinct and very precious. Now the future is here. Glo-Fish™ are genetically modified aquarium fish that have been engineered to have their own fluorescence - especially in the dark but also during the day if one uses an ordinary aquarium lamp. At night, you can use a black uv lamp like the ones used in discotheques that make white shirts and teeth glow in the dark. Glo-Fish™ absorb light and re-emit it. This makes the fish appear extra colorful. The glowing effect is enhanced if you have white sand in your aquarium according the Glo-Fish™ web site, which also warns that the fish are for aquarium use only and not to be released into the wild. While the fluorescent gene is derived from nature and said to be safe for the environment, the Glo-Fish™ are not meant to be eaten.

The fish cost $5 USD / 4 € a piece. Read more about it at www.glofish.com

Navy SEAL Legend
Want to settle in with a good book of high adventure, secrecy and near escape? A new autobiography of the legendary Roy Boehm, founder and guiding spirit of the famed U.S. Navy SEALs recounts his early years as WWII recruit, his risky missions with the Underwater Demolition Unit, a narrow escape from a man-eating shark that got his partner after his ship sank at the Battle of Cape Esperance, and his work in Castro’s Cuba as an intelligence agent. With journalist and former Green Beret, Charles Sasser, Boehm gives us his blunt point of view on JFK and the Bay of Pigs disaster. He shares his perspectives with frank honesty and the tough grit that carried him through obstacles pitched by a bureaucratic system laden with inter-service rivalry and inertia as he worked toward his dream to create a new commando force of elite soldiers. The book is laced with humor and military profanity. Should prove to be a good read. Priced around $23 USD / 18 € hard cover, $7 USD / 6 € paperback. Order the book from Amazon.com
Alt du skal bruge når du er oven vande...

Udstyr til eventyr

SPEJDER SPORT

www.spejder-sport.dk
Holiday greeting cards for divers

Christmas is just around the corner. Why not send your dive buddies fun artsy cards of underwater creatures that relay your yuletide message of holiday cheer? Cards (4.5 x 6" / 11 x 15cm) are available with red, white or green envelopes in packages of 25 and shipped directly to your home or business within one week. With large quantities of 500 or more, businesses can get their message and logo placed on the cards. E-cards and postcards are also available. To place your order, contact the fun folks at AquaScope Underwater Photography. Package of 25 cards and envelopes priced at $59 USD / 47 € includes UPS ground shipping. International or second day air shipping additional. www.aquascope.biz

IN DESCENDING ORDER
FROM TOP LEFT:
Santa Hermit Crab
Gammarids in Love (VALENTINE’S DAY)
Rudolf the Red-Nosed Moray Eel
Christmas Tree Worms
Fred the Flatfish Elf

Norske dykkings siste utgave.
For flere bilder og info, klikk i bildet
Siberia

Tea, nitrox and vodka

text and photography by Peter Symes

Deep in the heart of Siberia lies one of the world’s largest lakes and one of its seven underwater wonders. This is Lake Baikal whose crystalline waters contain a whole strange eco-system, where gigantic amphipods live in a forest of green sponges, and where a Russian live-aboard now offers an adventure of a lifetime.

Unreal

The sudden fall of the Berlin Wall changed the idea of an expedition to Lake Baikal from just wishful thinking to a project that was actually realisable. It would take time, but now here I am at last, and it is with a feeling of the surreal that I now sink down through the cold, clear water.

Beneath me the bottom slowly begins to appear. I can hardly believe my eyes. It is like landing on a strange new planet. It is like nothing that I have ever seen before - not even a slight resemblance is to be seen. The large green sponges growing everywhere are reminiscent of the tall cactuses seen in cowboy movies only smaller.

Between them, the bottom seems to be covered by different soft moses and lichens. These are
also colored a vibrant green with odd patterns. Strange small fish hide among their branches. I land softly on my knees before a large sponge. Its whole surface is covered by small, psychedelically colored anthropods with far too many legs.

I look around me and observe the landscape with all my senses on full throttle. It could be a stage set from a science fiction film. The fresh water is sparkling clear. The visibility is more than 30 meters, and everywhere I see these green sponges. Above me, I can just make out the outline of our dive boat from which my fellow travellers now also begin to drift downward to land beside me on the bottom of the lake.

The bottom is hard, being rock with loose stones and gravel, and it slopes slightly downwards. Even though it is the middle of July, the water is not more than 4°C, so we all appear and feel like awkward astronauts in our thick dry suits as we move off together down the slope.

We first have to get ourselves a bit organised as we have not tried diving together before. The expedition consists, in addition to myself, of two Russians and five Dutchmen plus the Russian crew of four. My Dutch colleague, Steven Weinberg, is also a fresh-water biologist, so there is a tendency for us to stop and wonder together over the same strange things to be seen.

Keeping together in that manner, we move off along the bottom when suddenly a vertical drop-off appears beneath us. We stare straight out into black emptiness. It is a little bit spooky. I get the feeling again that I’m in a sci-fi movie with aliens. Da-da-daa-dumm – what mysterious creatures are hiding out there in the unknown?

Lake Baikal is the deepest lake on the planet, and you can sense it already close in to the coast.

We glide out into empty space. The whole wall is covered with strange, unknown bizarre creatures that we have never seen before. Sometimes we are underneath an overhang. We pass the 25 meter level on the way down through the ice-cold water. In the distance, we can see the bubbles from Andrey and Gennadij, the Russians who are the other pair in the water.

The wall is exciting. Dramatic. Mystical. But, like in the tropical coral reefs, it is more interesting further up. So, we return to the forest of sponges at 10-15 meters, where we
begin to catch glimpses of the many small fishes that press themselves into the cracks and between the stones.

Here, we also find some of the unique anthropods for which Lake Baikal is famous. Like giant amphipods, the freshwater gammarids resemble something torn out of Jurassic Park. The comparison is not completely inappropriate because most of the species to be found here are endemic – which is to say that they are only to be found here – and have been separated from other lines of evolution for many millions of years.

The lake is possibly up to 50 million years old, and for the greater part of that time has been an isolated eco-system where the evolution of the species has gone its own way. In a way, it can be compared with Australia where the marsupials from kangaroos to the koalas developed in isolation from the rest of the world. It’s just that Baikal’s world lies beneath the surface.

Teatime
The water is really cold, but up on the deck of our good diving boat, we have to get out of our suits quickly in order to avoid overheating. Up here, it is summer, and the air is full of the perfume from the many flowers that burst forth in order to get the most out of the short Siberian summer. The light is wonderful and clear, and the days are long like those of my homeland’s mid summers white nights in Denmark. Sitting on deck clasping a cup...
of steaming tea, we stare at the mirror-like water and soon fall into our own thoughts.

The tea is strong and comes directly from the samovar, a special Russian tea-making contraption that keeps water hot in a tea pot. It soon becomes a pleasant after-diving ritual to enjoy a couple of ginger biscuits together with the tea. It is very beautiful here and divinely peaceful.

Moscow and all its bureaucracy is already far away. Russia is a fascinating place, but chaotic, and my thoughts glide back to my arrival and all its difficulties. Here, nothing seems to be possible without much discussion and a couple of roubles changing hands. And all the paper shuffling! To check into a hotel can require a multitudinous amount of forms to be fill out. Thereafter, you can be sent up to the third floor to get the key, show your pass and fill in more papers. If you should desire a bottle of water then you have to go to the fifth floor. Then down to the first floor if you wish to borrow an iron. Elevators are out back and do not stop at floors but on the landings between floors at the turn of the stairs. This means that one has to either walk up half a floor or down half a floor with all one’s baggage. Or perhaps more, since not all the elevator’s buttons work.

Luckily it was quite different here in Siberia. We were fetched at the airport in Irkutsk by the crew of the boat in a couple of minibuses, and from there on, everything functioned smoothly.

The boat is also well equipped, but there is not much space on board. It is definitely not luxurious. So, if you are used to 5-star live-aboards in the Caribbean, you’ve got a shock coming. But if you can accept the rather confined conditions and find the right expedition spirit, then the boat is quite excellent for the purpose. There is a big and well equipped stern deck with plenty of space to set out gear and nitrox equipment, plus a big table for cameras, or, as we soon found out, to drink vodka through the long white nights.

Change of temperature
The warmth of the air and the coolness of the water are in continual competition. One moment the warmth of the sun is dominating, and one sits in just a T-shirt gasping in the heat - the next moment one is overwhelmed by an icy cold wind that carries the chill of the water over the railing, forcing one to put on all available sweaters. In the north, there is still snow on the tops of the mountains. It is July, but the ice has only disappeared from the north side of the lake in June.

After the first dives in the south end of the lake, where the Angara river flows down from Irkutsk, we
Siberian Adventure

set a course northwards. On the first part of the coast there are but a few sporadic towns. It is here that the Buryats live. They call the lake a sea and it is holy to them – most people are Buddhists out here.

It is a little strange to look out over the land as there are so many reminders of Scandinavia that it is easy to forget how far I actually am from home, and that we are in the same time-zone as western Australia. Mongolia is just 150 km in a southerly direction from here.

As we move northwards, the coast line becomes more rocky with steep mountain sides and the towns disappear behind us. We see the sun go down and sail on into the night.

The visit to Ol'chon
I woke at the sound of the ship manoeuvring into the ravaged quay built of railway sleepers. There are a number of fishing boats here. Some weird-looking pigment-less fish called golomyanka are caught in Baikal, which are of great economic importance. They are inedible, but half of their weight is oil.

The most important fish for consumption is called omul, and it is sold on the markets just like Danes sell herring; newly smoked, salted, pickled or preserved. It resembles and tastes like a herring but is bigger and slimmer.

We disembark. The island is covered by rocks and a felt-like short grass that bears the marks of grazing. A little less than a kilometer from the landing place lies a village. All the houses are built of dark, tarry wooden beams and the roads are about 50 meters wide. If one could actually call them roads - they are just bare empty spaces of naked earth. I observe three old men smoking pipes in the shadows, men who are trying to fix an ancient tractor, and children playing with their bicycles as we walk through the village to the other end of town.

The landscape is very open. It is a long distance to the horizon and the sky is huge. I recognize that special Nordic light which we have back home in Scandinavia.

Up on the cliff we can see down over “The Shaman Rock,” a foot-hill of characteristic shape. The Buryats, the local population, believe in both Buddhism and shamanism, and we see colored ribbons tied around branches and tree trunks. At one place a lot of coins have been placed in front of a little stone altar. There is also a Euro coin placed there, so we western Europeans cannot be completely alone out here.

I am not religious, but there is a remarkable spiritual energy in this place, which influences both mind and body and makes us all a little bit introspective.
Vodka

The Russians are not quite so spiritual with regard to vodka, which we drink far into the white nights. It is difficult to refuse when one is constantly being pressed to take just another one.

Captain Sergei Nikolaijevich had previously flown battle helicopters in Afghanistan - at least that’s what he said. But he appeared to be a man who had no need to boast unnecessarily, nor one you would want to pick a fight with. The military tattoos spoke for themselves, so his story was probably all true.

Despite appearances, Sergei was very kind and friendly. My Dutch diving biologist partner Steven from Luxembourg got into
a long conversation with Sergei. The two men were so very different and did not speak the same language.

However, with our Russian diving doctor Andrey as a stumbling translator, they fell into a deep and hearty discussion about the culinary specialties common to Luxembourg and Siberia, and in the end developed a deep brotherhood. Chalk it up to the consequences of quaffing copious amounts of liquid food in relaxed company. By that time, I had discreetly slipped away.

Nerpa

Lake Baikal is home to the only freshwater seal in the world, the nerpa. How it came to be in the lake is something of a mystery since, apart from the fact that the lake is a freshwater reservoir, the sea is a long way from here - the lake being in the middle of the continent.

One theory explains that very long ago, sea water flowed up the Yenisey river right to the mouth of Angara. Most researchers, however, think that the seals migrated into the area during the early period of the formation of the Baikal depression. It is thought that the seals migrated deeper and deeper into the area in their search for food.

In some years, a total of nearly 100,000 nerpa have been observed in and around the lake. Valued highly for their soft fur and blubber, these animals have been hunted for thousands of years, and archaeologists have found hunting weapons in caves that were inhabited by early seal
An armory of underwater cameras and photographic equipment piles up on the deck of the live-aboard for the Lake Baikal expedition.

The live-aboard takes divers on a week long journey up and down Lake Baikal.

Reconnaissance first
We sailed round the little group of islands in the ship’s rubber dinghy to scout out the terrain. With eight men in the little boat it seemed a very doubtful enterprise knowing that we lay heavily in the water. There were no life-belts and the lake is icy cold. But we reach one of the islands in safety, landing on a deserted beach from which we move on across the island.

The animals normally glide quietly through the water, but if one of us makes a sudden movement, they all become alarmed and flop down tossing and splashing noisily into the water.

The bottom of the wood is covered in flowers, and the air is fresh. On the other side of the island, we carefully raise our heads above the brink. Below us we could see the nerpa, Baikal’s fresh-water seal and one of the world’s threatened animal species.

Some seals thrust their heads out of the water, others have already made themselves comfortable on large sun-baked stones. The wakes further out on the surface of the lake indicate that there are more seals coming in.

There are some 50-100 seals, and they all look well nourished. We can see different types of behaviour. In one case, for example, the animals lay parallel and appear to be taking turns in scratching each other; and in another case, they are face-to-face in what looks like a boxing match.

The animals normally glide quietly through the water, but if one of us makes a sudden movement, they all become alarmed and flop down tossing and splashing noisily into the water.

hunters.
We will also hunt the nerpa today, this time, though, with just cameras and film. The animals are shy. Perhaps they remember our forefathers rather too well, so we must make an appropriate tactical plan.

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The bottom of the wood is covered in flowers, and the air is fresh. On the other side of the island, we carefully raise our heads above the brink. Below us we could see the nerpa, Baikal’s fresh-water seal and one of the world’s threatened animal species.

Some seals thrust their heads out of the water, others have already made themselves comfortable on large sun-baked stones. The wakes further out on the surface of the lake indicate that there are more seals coming in.

There are some 50-100 seals, and they all look well nourished. We can see different types of behaviour. In one case, for example, the animals lay parallel and appear to be taking turns in scratching each other; and in another case, they are face-to-face in what looks like a boxing match.

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Reconnaissance first
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It is apparently a warning in itself, because the alarm spreads seal panic domino-like along the coast where other seals are enjoying the sun, causing them, too, to throw themselves splashing into the water. Afterwards, one feels a little foolish sitting empty handed, seal-less, watching a couple of hundred expanding rings in the water.

However, with a little luck, one could get to within 10-15m of them, and with powerful telephoto lenses, nearly portrait-like photographs could be obtained. We were so excited and nearly high over this unique and lucky meeting. So, new ambitions began to spring up among the photographers. We will photograph them underwater! A strategy meeting was called, for how could we get within shooting distance of these shy animals?

Commando raid

The solution was an advanced plan in which we would all swim in a long row under the water from one side of the island where the seals could not see us. We would then move in a big semi-circle around the cape in order to arrive in a long row facing the coast where the seals were enjoying the sun on the stones. Then, one of the local guides placed on the furthest wing, would move close to the coast alone, go up the stones and startle the seals who would then go crashing into the water. Then, we figured the seals would come racing past us while we waited with all our cameras at the ready.

We succeeded, in fact, against all the odds, even after a lot of trouble and care in carrying out that difficult navigational exercise - getting our forces placed as agreed. But the seals were smarter. When we came up, they were lying behind us, further out in the water and looking at us, clearly wondering what these foolish humans were up to. Ah, well! The smart can always cheat the less smart, and this time we were among the latter.
The light nights
The Ushkiani islands are far to the north, so after our unsuccessful attempts to capture the rare nerpa on film, we sailed southwards back through the light nights. We must cross the lake from one side to the other, and the weather begins to worsen. Luckily, I am used to rough seas back home, but several of my colleagues had to go up and "get some fresh air" during the crossing.

At two o’clock, we lay in under the deserted east side of Ol’chon. The island, with its fir-tree covered sides, rises steeply over our heads, and there are no traces of human activity anywhere. In under the coast, there is a plateau in 3-5 meters of water and here the ship, dubbed the Jaques Cousteau (“Sjak Iv Kusto”), is anchored.

A few meters behind the boat, there is a drop-off covered with the characteristic green sponges. The light is fantastic, and the visibility is at least 20 meters making everything appear quite troll-like. In among the sponges, we find the fresh-water amphipods and some small sculpin-like fish. It is the universe of small things, and there are many of them.

The biggest of the amphipods have beautifully drawn legs, with yellow stripes, and under the stones there is a very decorative brightly colored red one. We made several dives. The visibility and the ambience of the wonderful Nordic light was uplifting. The water is only 4º C, but feels warmer. I have only got 3mm gloves on, but my hands remain warm during the whole dive, which certainly makes it easier to use my camera.

We remain there, and in the evening make a camp fire on the beach and eat grilled food. The whole scene is like it has just been taken from a Barcardi advertisement. There is no other light to be seen anywhere. It’s just us, a fabulously well equipped diving boat, and an overwhelming natural world, which we apparently have completely to ourselves.

All alone in the world
The next morning, there is a gentle rain, and even though we can see our breath in the air, this morning, too, is beautiful and poetic. The water is as smooth as silk. The horizon is one with the sky in the morning mist, and beneath us, the bottom and the rocks can be seen clearer than ever before. It is so quiet here that our giant strides seem so violently noisy as we splash into our morning dive. Our cameras are passed down to us and once more we pass over that strange lake bed. Out over the drop-off, Gennadij, the Russian diving guide, has the peculiar daily routine of going down to 100 meters and back. I never did completely understand what he did down there in the cold and darkness, since he didn’t have much time at the bottom, only a lot of decompression afterwards.

Andrey and I take a dive down to about 40 meters. Considering that the water is ice-cold, it is quite sufficient, and there is not much to see anyway down there. Down at this depth, it is the fascination with the whole scenery that entices me briefly. When I am down there gliding over the coarse rocks with
their green covering, and cannot see the surface, it reminds me somewhat of a trek in the mountains in foggy weather. And beneath everything, I hear that internal repetitive mantra. "I am a long way from home... I am exploring a whole new world... I am a long way from home... I am exploring...

We really are just by ourselves out here beyond the edge of our familiar world. When we sail, we see no other boats, and at night there are no other lights to be seen.

**Behaviour**

It is the gammarids that interest me most on these dives. These enormous monstrous crustaceans are called "water fleas" back home, a popular Danish term, or layman’s expression, for the small amphipods one sees “everywhere” in kelp at the beaches. Here, they are everywhere evident in the landscape and seem to dominate the eco-system. I have photographed at least 8-10 different species. It is going to be very interesting to identify them all. At the moment, I really have no any idea about how many there are or how they interact. It is going to be very interesting to identify them all.

I lay on my stomach in front of a large cactus-like coral and observe a pair of large acantogammarus feeling each other with their antennae. Is it like coral and observe a pair of large acantogammarus feeling each other with their antennae. Is it...

The food is solid Russian or Siberian peasant cooking. The cuisine has a total lack of finesse, but holds its own charm regardless. For better or worse, it is not adjusted to suit the tastes of the guests. So, if you are prepared to eat what the local people eat, and accept it as a natural part of the adventure, then you can get a whole new experience. If not, then you have a long way to go to get to a MacDonald’s.

Both the heavy midday meal and the somewhat lighter evening meal start with a thick soup and bread. There is often some sort of local fish in the soup. After which, comes the main dish consisting of meat, gravy and potatoes with which one drinks vodka. To round off the meal, there are biscuits, sweets and tea from the samovar. Breakfast is just as solid and heavy as dinner. As a rule, we get some form of light, rather delicate porridge to start with, followed by bread, cheese and sliced meats. The porridge is one of the things that I remember with the greatest pleasure. It was really quite good on the...
life in the lake - not even in Russian. This is true even despite the fact that there has been an internationally known fresh-water biological institute on the shores of the lake since the 19th century to which researchers from the whole world have travelled since the time of the tsars. Of the few works there are to be found, most are old and practically unobtainable, (e.g. "Fresh Water Sponges of the USSR" from 1936 and "Amphipods of Lake Baikal" from 1945).

A Russian scientist, D.N. Taliev, wrote already in 1948, that “… Baikal is a unique natural laboratory without comparison in the world, where one can study the formation of new species and evolution. A laboratory which can contribute to insight into, and understanding of how these processes take place in plants and animals, and so can lead us to a deeper understanding of how life on the entire Eurasian continent developed as a whole.”

Oleg Anatolyevich from the Fresh-Water Laboratory in Irkutsk adds, “Regarding the richness and variety of its species Baikal takes an absolute top place among the lakes of the world. The number of known species and variants is currently 2491, which is more than twice as many in its closest rival, Lake Tanganyika in Africa. But even that figure is only a beginning, because in our own fresh-water biological institute, 20 new animal species are described annually. My forecast is that Baikal will be found to contain more than 4000 species of animals and more than 2000 plant species. For a long time in the future, Baikal will be a powerful centre regarding research both in general biology and in evolution, and in fresh-water biology where publication of guides has a very high priority.”

Afterthoughts

Baikal is such an intense and strange experience that it is a challenge to one's vocabulary to find the right words to describe what one feels on the journey. When we returned from our round trip that had taken us 500 km up and down Lake Baikal, and were on our way up the Angara river towards Irkutsk, I felt enriched and grateful. Both the travel itself and the knowledge of having fulfilled a wild dream from my youth gave me a wonderful feeling of satisfaction, which I now sat and enjoyed quietly as the banks of the lake glided slowly past me.

Looking back, what surprises me most is how easy it was to get there, and how well organised the diving was in Siberia. In reality, the greatest barriers to reaching this ancient lake were my preconceptions of a remote impassable wilderness, a broken-down infrastructure and an insurmountable bureaucracy. But from the moment we landed in Irkutsk, we were well looked after.

I don't know if I will return to Lake Baikal. If I do, it will probably not be very soon. One should never try to repeat uplifting experiences; you risk spoiling meaningful memories. But I do hope that others will follow in our footsteps, and that divers all over the world will come to know about this unique place. There is room out there for every adventurous naturalist, and the resulting eco-tourism would be the best environmental protection that the area could get.
Lake Baikal, Siberia

Geography Siberia lies in the Asiatic part of the Russian Federation, east of the Ural and forms a plateau that varies in height from 450 - 900 meters. In the south, it is closed in by mountain ranges. The capital city of the Federation is Moscow, in the European part. The Federation has 146 million inhabitants. Baikal has a coastline on the Buryat autonomous region and the Irkutsk region. The town of Irkutsk has 600,000 inhabitants and is the region's administrative center and airport. Irkutsk town and Lake Baikal are 50km apart but are irreversibly bound together. Baikal contains 20% of the fresh water reserves of the world.

History In the 7-13 centuries the region was dominated by the original tribal peoples. From the end of the 1100s, the region was terrorised by the Mongolian invasions of among others, Djengis Khan. From the 1600s Siberia begins to have closer ties with Russia. There was no official frontier in the enormous desert-ed areas and colonisation took place slowly from the east. Irkutsk was founded in the 17th century by Cosacks who chose to settle permanently in the region. It was also the most important Russian bastion east of the Ural, and all expeditions to colonize Kamchatka and Alaska originated here.

Language Russian. English, as a rule, is only spoken by younger people or those employed in the tourist industry.

Time zone GMT plus 7

Climate Temperate continental, with short warm summers and cold winters. Mean temperatures: January –21°C; in July +17°C

Valuta Russian rubles (RUB). There are cash points for VISA in Irkutsk

Electricity There is a 220V generator aboard

Telephone Country code (+7). Some cell phones can be used in Moscow, but not in Siberia.

Food and drink A good meal can be had for about 3-4 USD or 2-3 EUR. Vodka is often drunk at the main meals. Russian food is rather heavy but tastes good. Fast food can be obtained in the larger towns.

Diving Diving centre Aqua-Eco based in Irkutsk runs the diving ship Sjak-Iv Kusto and arranges liveaboards on Lake Baikal. Tour season: 1 June-15 October. Package tour includes stay, sailing, full board and snacks, English speaking diving guide and instructor, lease of flasks and lead belts together with air. Nitrox costs a little more. Web site: www.aquaeco.eu.org/eservices.html

Safety There is a decompression chamber aboard the boat

Travelling From Europe to Irkutsk can be flown with different companies. Generally, there will be a change of airports in Moscow. We flew with Domodedovskaya as it gave 40 kg baggage per person. Aqua-Eco fetches customers in Irkutsk airport.

Visa A visa is required, and is given after an invitation from a travel agent. Allow 4-6 weeks to get the visa. Express visas can be obtained from day to day, but cost over 133 USD or 107 EUR. Entry documents and entry declarations must be kept for departure upon leaving the country again.

Web address www.aquaeco.eu.org

Giant gammarid on the sandy bottom of Lake Baikal
For as long as I can remember, I have had a fascination with aquatic ecosystems. Whenever I see a clear body of water, my immediate desire is to slip beneath the surface to explore what ever hidden mysteries it may hold. Even after 30 years of diving in freshwater, it seems I am still discovering something new on each dive. I am constantly on the lookout for clear water containing native species of aquatic flora and fauna to photograph underwater.

When I travel, I always map a course that meanders around the country side to check out potential dive sites, especially sites that contain species of fish I have never photographed before. Such was the case in the middle of February 1996 when I went to visit friends in Alpine, Texas, and made a stop on the way down at Balmorhea State Park in Toyahvale, Texas.

I was awestruck by the amount of clear water and the beauty of this oasis in the arid lands of west Texas. Balmorhea

Diver being swarmed by a school of Mexican Tetras, Astyanax mexicanus
State Park and its refugium were constructed in 1975 to provide habitat for two endangered species, the Commanche Springs Pupfish, Cyprinodon elegans, and the Pecos Gambusia, Gambusia nobilis.

Clear Pool
The swimming pool is one of the largest man-made pools in the United States, fed by 22-26 million gallons (84-99 million liters) of clear, 76° F water from San Solomon Springs. The pool has a large main circular area 25 feet (8m) deep with two long rectangular arms extending out. One arm is three to five feet (1-2m) deep, the other is twenty feet (8m) deep. The circular pool is reserved for scuba divers while the two arms are open to swimmers and snorkelers.

Water from the pool flows into a series of canals constructed around the park. Recently water has been diverted into a newly constructed cienega, or wetlands area. After the water flows through the park, it is available for agriculture use in the surrounding area. The canals and cienega provide additional safe habitat for the two endangered species. The canals are off limits to swimming, however both species of fish can easily be observed from the bank.

What drew me to the park was the opportunity to photograph the Commanche Springs Pupfish underwater in the swimming area. Photographing fish underwater is not an easy task as anyone who has ever attempted it will tell you. There is no way you can sneak up on or chase a fish in its own element. Your subject has to realize you are not a threat and be willing to swim up to you or at the very least ignore you as he or she goes about their daily business. The best way I can describe how to do this is to move slowly... do not make any sudden moves and basically act like you are nothing more than a floating log.

My first attempts at photographing the Commanche Springs Pupfish during the day were not successful. The pupfish were very active and wary, worst yet were the schools of Mexican Tetras that were swarming around me. Whenever I would attempt to get close to the pupfish, the schools of tetras around would spook the pupfish. The park is a very popular scuba diving site on weekends and divers often feed the tetras. The tetras have become so accustomed to being fed that anytime a diver enters the water they swarm in around them.

Pupfish at Night
I have learned from past experience that a number of fish species that are active during the day are completely dormant at night and are easy to approach. I decided to try my luck at photographing the pupfish at night.

I noticed that during the day there were only tetras and pupfish present in the shallow three foot (1m) arm of the swimming area. I decided to enter this arm just after dusk. As I suspected, the tetras were inactive near the surface and the pupfish where spread all over the bottom completely inactive and easily approachable. What I did not expect to see was the feeding frenzy of predators on the pupfish.

A number of Green sunfish and Headwater catfish had moved into the shallow arm and were scouring the bottom feeding on the immobile pupfish.

Turtles
In addition to the fishes at the head of the arm, four Texas Spiny Softshell turtles were lined up in a straight line moving up the arm. They reminded me of a line of infantry moving into battle. This may seem like a terrible fate to befall an endangered species, however keep in mind that pupfish are prolific breeders and spawn virtually year round. They can rapidly over populate their environment without some type of predator control.

Due to time restraints, I was only able to shoot a few rolls of film before having to move on. I was not able to see the results of my efforts until I returned home a few days later. Unfortunately, I had made...
some exposure errors and was not pleased with the few images I ended up with. The memories of what I had witnessed on the night dive kept haunting me for weeks. I finally decided to return to Balmorhea in mid-April and spend three days concentrating on just photography.

My second efforts resulted in a vast improvement over the first trip. I was also fortunate to have park ranger, Tom Johnson, assist me on a few dives. Even though Tom was very busy during the day, he still found time after work to help out on a couple of dives.

I mentioned earlier that my first attempt at photographing pupfish during the day was hindered by the swarms of tetras around me. After several dives during my second visit, the tetras began to realize I did not have anything to offer them and began to ignore me. I was then able to slowly allow the pupfish to become accustomed to my presence until they knew I was not a threat to them. This allowed me to closely observe some interesting behavior.

Male pupfish set up territories and vehemently guard them from intrusion by other males or even from larger tetras. Without making several dives and patiently waiting for the pupfish to become accustomed to my presence, it would have been impossible to observe this behavior. This is very similar to the difference between taking a casual walk down a nature trail in the middle of the day and quietly setting in a blind at the break of dawn.

Female Pecos Gambusia, Gambusia nobilis, in vegetation during the day
Every wildlife photographer, outdoors man, deer or turkey hunter knows you will see a lot more wildlife by remaining still and blending in with the environment. The same is true when you are trying to view aquatic life. You just have to adjust your techniques to fit the environment you are in. The real key to successful viewing and photographing aquatic life is to know what you are looking at, being patient and learning to look closely at small details.

Deep Drama
There are numerous interactions between aquatic organisms being played out beneath the surface of the swimming area of Balmorhea State Park. Too often, divers do not pay attention to the smaller subtle dramas that are continually going on in front of them. Dramatic interactions are constantly taking place and no two dives will ever be the same if you learn to pay attention. In addition to the spawning and feeding habits of all species of fish, the behaviors of turtles, crayfish, snails and insect life cycles are all fascinating subjects to explore.

I often have trouble convincing people the photographs I show them were taken in freshwater. There is a false notion that the only place to view the wonders of the underwater world is scuba diving on a tropical reef. Opportunities to observe and photograph aquatic life are only limited to your ability to learn how to adjust your own viewpoint and techniques to fit the environment your exploring. At the swimming area of Balmorhea State Park, you do not have to be a scuba diver to view an endangered species interacting with other co-inhabitants. All you really need is a mask and snorkel and a little patience to open up a new world that is only a couple of feet below the surface.
Geography  Balmorhea State Park is located in the United States in Reeves County, Texas, on 45.9 acres in the foothills of the Davis Mountains southwest of Balmorhea. The main attraction of the park is the San Solomon Springs. They fill a 'cienega' (desert wet land) and the canals of a refugium, which is home to endangered species of fish, various invertebrates and turtles.

Elevation  3205 feet

History  For thousands of years, San Solomon Springs has provided water for travellers. Artifacts found at the site indicate that Indians used the spring extensively before white men came west. The springs were named Mescalero Springs in 1849 for the Mescalero Apache Indians who watered their horses there. It was renamed by the first Mexican settlers, who used the water for farming and dug the first irrigation canals by hand. The park opened in 1968. It was built by the Civilian Conservation Corps (CCC) in the early 1930s, a New Deal program initiated by President Franklin D. Roosevelt during the Great Depression.

Activities  Motel accommodations; swimming, scuba and skin diving in the 77,053 sq. ft. (23486 sq.mi.) artesian spring pool fed by San Solomon Springs; picnicking and camping.

Currency  the U.S. Dollar, USD

Weather  Warm days with cool nights May to September. Low humidity all year round. Average rainfall around 14 inches (36cm) mostly in August.

Scuba Diving  Air tank refills are available locally. Scuba divers must meet safety regulations.

Area Attractions  Davis Mountains State Park, Indian Lodge, Fort Davis National Historic Site, McDonald Observatory, Replica of Judge Roy Bean's West of the Pecos Museum, Chihuahuan Desert Research Institute, Sul Ross State University; Museum of the Big Bend, the Mystery Marfa Lights, Anne Riggs Museum; Rooney Park; and Ste. Genevieve Vineyard/Winery.

Web sites  Fort Davis Chamber of Commerce  [www.fortdavis.com](http://www.fortdavis.com)

Balmorhea State Park  [www.tpwd.state.tx.us/park/balmorhe/](http://www.tpwd.state.tx.us/park/balmorhe/)

National Park Service  [www.nps.gov](http://www.nps.gov)
These days, writers and photographers are discovering the advantages and benefits of Internet media and on-line publication. When it comes to submitting work, X-RAY MAG is the ideal venue for contributors on the go...

X-ray Mag is currently accepting new and previously published photographs and stories in English and Scandinavian languages on the following topics: all types of diving, dive travel and resorts, dive equipment, profiles of people with significant achievements in diving, diving events and shows, marine biology and ecology, oceans, wrecks, reefs, trends, marine archeology and other related issues. As we must adhere to the highest international standards in publishing, only well-written submissions with editorial integrity and high ethical standards will be considered for publication.

Unlimited Space
Since our magazine is on-line, our space is unlimited. However, as a general guide we accept stories from 400-3500 words depending on subject matter with at least four to six or more high quality images. Most of our feature stories are packed with images (10-20) since we have unlimited space. But we publish only the best of what we get since the technical and artistic skill of most of the contributors who submit work to our magazine is world class if not exceptionally high. We also accept photo portfolios on specific topics or on collections of approximately 10 images from a featured photographer's best work.

Topics
We prefer to accept stories about locations less commonly travelled since our readers tend to be serious and experienced divers that are well-travelled and well-educated, visually and technically sophisticated. Currently, we are working on stories that relate to the 10 expedition dive trips offered through Blue Horizons Expedition & Dive Club which publishes our magazine, including Lake Baikal, Siberia; Sardine Run, South Africa; Orca Safari, Norway; Thingvellir, Iceland; Thailand adventure cruise from Singapore; Aqaba Bay, Safaga and Marsa Alam at the Red Sea, Egypt. But we have stories coming in from around the globe: Kangaroo Island, Australia to San Simeon, California.

We are very interested in what you can provide for us from your neck of the woods as well as your recent and future travels. Previously published work is accepted.

Formats & Supporting Materials
Please email your manuscript in a Word document following
standard publishing style. Include total word count, contact info, your sources’ email addresses and telephone numbers, a resume, a brief two to three line bio and a quality head shot of yourself.

Send high end scans (we recommend Nikon Coolscan, Imacon or professional drum scans) of your photographs in jpeg format - 144 dpi resolution at approximately the following dimensions:

- 2500 x 1550 pixels for covers and spreads
- 1550 x 1000 pixels for all other article photos.

Captions & Release
Please include meaningful captions with names, location and description for all photographs. Some photographs of people require a signed release from the subject.

Travel Stories
Travel stories should contain a legible map and fact file including notes on geography, climate, demographic information, currency, language, security, voltage, food, health & vaccinations, visa, prices and relevant travel information.

Compensation
Compensation is contingent on ad sales. In our inaugural year, we offer our writers and photographers free advertising on the web sites of both Blue Horizons and X-RAY MAG. In addition, contributors receive a free ad in the issue featuring their work. As our ad sales grow, we will offer standard compensation to our contributors. For more information on how to earn commission as an ad sales rep, contact the ad sales department at: sales@xray-mag.com.

Deadlines
Send your story, photographs, ad materials and web site information by the first of February, April, June, August, October or December for inclusion in the following issue to the address below.

X-RAY MAG and its affiliates are not responsible for lost or damaged materials or loss or damages resulting from electronic transfer or communications. Personal information is held confidential and will not be released without the individual’s written permission.

FOR MORE INFORMATION, CONTACT:
Peter Symes, Editor-in-Chief & Publisher
psymes@xray-mag.com
Gunild Pak Symes, Managing Editor & Art Director
gsymes@xray-mag.com

XRAY MAG is published six times per year by Blue Horizons Expedition & Dive Club and distributed globally by Aquascope, Copenhagen, Denmark.

www.bluehorizons.dk
www.aquascope.biz

DIVE PHOTOGRAPHY?
1000's of images from the incredible underwater world
Photographs are captioned with English, Norwegian and scientific names.
No password needed to get access to images.
We also have our own section on diving history.
Reach a huge diving audience at low rates. Advertising in X-ray Mag makes a difference!

Coverage
Complimentary subscriptions to X-RAY MAG is offered to all individuals and divers through the present training agencies and organisations, dive shops, clubs, dive and travel industry partners, travel agencies and through collaboration with other outdoor and leisure media. It also serves as the club magazine for Blue Horizons Expedition & Dive Club based in Copenhagen, Denmark.

X-RAY MAG is now published in two editions: a Scandinavian edition in Danish for the Scandinavian dive market, and a global edition in English distributed internationally.

The magazine is emailed bi-monthly directly to subscribers and individual members. Through a double opt-in function, we make sure that our readers have actively chosen to read X-RAY MAG.

In addition, there are several other venues where ads can be seen beyond the emailed issues including the magazine home page and archive pages on the Internet, direct email campaigns and Blue Horizons comprehensive news page, archives pages and search engine.

Visibility
Advertisers can choose to show ads in all three venues or just one. Various sizes of ads (shown below) follow standard dimensions of most tabloid size magazines, so as to make it very easy for customers to send previously designed ads.

We can also design ads to spec for you with early receipt of art work, photography and text on the first deadline. (See schedule, next page).

Statistics
Readers are required to register in order to become club members and/or receive X-RAY MAG by email. Upon registration, they are asked to fill out a questionnaire. The number and location of unique visitors and downloads are being confirmed and analysed by our sophisticated statistics software. As this is our inaugural season, we will post statistical information as it accumulates.

Material
Format: RGB, 144 dpi. PDFs are preferred. Be sure to embed all fonts and include all images.
AIRLAB. The most complete: technology of the future and high performance Mares Lab reliability. Dedicated to the most demanding divers.

Illuminated alarms.

The only dive computer with illuminated alarms that are clearly visible to both the diver and dive buddy: yellow light at 100 bar and red light at 50 bar.

Air consumption.

The only dive computer that calculates and communicates air consumption during the dive.

RGBM Mares-Wienke Algorithm.

The first to introduce deep stops to reduce the formation of micro-bubbles and ensure safer dives.

Discounts
We give a 10 % discount to repeat customers who advertise in three to five issues. Customers receive a 15% discount when they advertise in six or more issues. Please contact the sales department for details.

Requested Placement
Add 12% above the regular rates.
Placement with specific article: Add 15%.

Direct Mail
We can send direct email ads to our mailing list of individuals who have opted to receive announcements and promotional messages. If you are interested in purchasing a direct email package, please contact our sales department for details.

Classified Ads
50 USD / 45 EURO per issue. To place a classified ad, send your billing information, name, address, telephone number, email address and ad text (maximum 3 lines, 25 characters per line, no abbreviations please) to: sales@xray-mag.com.

Invoicing
An invoice for your ad will be sent to you upon publication with direct bank payment information.

X-RAY MAG and its affiliates are not responsible for lost or damaged materials or loss or damages resulting from electronic transfer or communications.

Contact & Delivery Address
Gunild Pak Symes
Managing Editor & Art Director
X-RAY MAG
gsymes@xray-mag.com

Deadlines
All customers must make a reservation to place an ad by the appropriate deadline. Completed artwork and materials must then be received by the copy deadline. Please see the deadline schedule below.

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Gold Medalist, Andrew Woodburn, takes a shot.

From the African seas to the islands of Indonesia, Andrew Woodburn finds treasure troughs of images in the oceans and pulls up gold. Recently, he has captured the gold medal award in the online global underwater photography competition of Underwaterphotography.com.

Tell us about that award winning shot of the whale shark and the snorkeler which won the Underwaterphotography.com competition. That shot was taken in the Mozambique Channel after diving. So, my boat was travelling from a dive site back to the beach. There was this female whale shark, and we had been looking for them. We found one and just got in to swim with them, and it turned out to be a really friendly one. Luckily, the owner of the boat got in and took off her wet suit, so I could take a couple of photos of her with the whale shark. After everyone had swum with it, it was still there... often times they will swim away, so we then managed to shoot a whole roll of pictures with that particular whale shark. You have to swim really quickly to keep up with the whale shark. It’s quite difficult. So, I just fell in the boat and couldn’t move for about 20 minutes after the dive, because I was so tired.

What drives you?
I’m primarily doing two things: the first one follows one of my favourite sayings about imagery, “a picture tells a thousand words,” and the second is that imagery can inspire people to go to new places and do new and different things. To create that imagery is really a death defying experience for me. Part of what drives me is the fact that seventy-five percent of the earth is water, and most people have never been in or under the ocean and don’t actually know what we have there. Even scientists don’t really know what’s going on in the ocean.

So, by taking photographs of what’s under water and showing them to people, you start the educational process that starts allowing people to experience what’s in the ocean without actually having to have the skills to dive or the money to travel and see these things. The reason that’s important is that the oceans are the last frontier on our planet and are getting quite severely used from a resource perspective. A lot of the natural underwater habitats and marine life of oceans are under pressure in terms of being farmed or being fished or being killed by pollution.

So, by educating people about what’s going in the oceans, what I hope to do is allow them to first, know what’s in there, and then on the basis of that, be able to care a little more about what’s going on down there.

What are your best and worst experiences?
My best experiences would have to be having a great location, sharing time with marine animals such as the whale shark, and other large animals such as whales, sharks and dolphins. I just
really love being on the ocean in beautiful weather.

My worst experiences have been when pieces of
equipment don't work properly, or when I have a
flood in a camera or something like that, because
then I have to replace pieces of equipment, and I
usually miss photo opportunities that might never
happen again. I am sure every photographer has had
those kinds of situations where failed equipment
prevents you from getting that perfect shot.

What achievements are you most proud of?
A couple of major achievements in my photographic
career are really important to me. Obviously, this re-
cent prize from Underwaterphotography.com is of
major importance to me, not because it is the most
prestigious competition, but because it is a new for-
mat of competition that's going to become, I think,
much more prevalent in the future. Because it is a
global competition, anybody can enter from any-
where. It doesn't matter whether you've got a digital
camera or a SLR camera. If it fits in the underwa-
ter housing, you can take part. This competition is
available to everybody and it's a constantly evolving
arena. I am very proud to have achieved what I have
achieved in this format of competition.

I am also very proud of what I have been able to
achieve in a very short period of time. I'm working
on a plan to travel, to take photographs, to take other
various business opportunities. To be able to go from
being, really, a beginner in the underwater environ-
ment to being able to take images that I am proud of,
has given me a tremendous amount of satisfaction.

Did you receive specific training in underwater photog-
raphy?
Well, I knew the basics of photography from school,
where I've done black and white photography in a
lab... from rolling my own film to developing and
printing my own pictures. But subsequent to that, I
read a couple of books and I watched the Discovery
Channel. Beyond that, no, I haven't actually gone
doing a particular course.

How did you actually start taking underwater photo-
graphs?
Quite a funny story actually... Fiona, my business
partner in Liquipix.net, originally had a very old sec-
ond hand Sea & Sea camera which she then gave to
me for a birthday present (while she bought herself
a new one) because I used to dive with her and all
I used to do was hang around and watch her while
she took photos. And that just wasn't working be-
cause, obviously, I was getting bored, and I wanted
to have a go as well. So, the way I started was by
somebody giving me a present and experience, and
then I bought more and more things as I got more
enthusiastic. I managed to build up my equipment
and my experience that way.

I learned a lot from diving also because I've been
diving for a long time. I've been diving over 15 years.
I started to get a little bit bored with diving because
in South Africa, I have dived most places we can dive,
multiple times. So, my diving career was at a point
where I had to lean toward either technical diving
or photography, and I was just lucky enough that I
Woodburn

had a more artistic approach, and so I ended up taking up photography. I started off in school studying engineering and have been working in engineering and business for ten years. And I began to realize that art had to be part of my life. I take so much enjoyment out of it and bringing it to other people.

Tell us about your time with Operation Wallacea?
It was a local dive operation started by a French shrimp farmer. He converted Indonesian boats into dive boats. And I was lucky to get aboard. I was looking for some place new that not many people had been to. The one picture with the diver under the big boat was taken on the Wallacea, of that boat, while we were still exploring for new dive sites.

What are your favourite subjects, techniques, film, equipment?
My favourite subjects are definitely wide-angle big animal subjects. I love macro as well but the big animal stuff for me is more of a challenge. You can't spend a lot time with it. Often the conditions are quite challenging, and also, you obviously have to know what you are doing because these things are often bigger or more dangerous to humans than you think. So, that's really special for me, when I get an opportunity to shoot the likes of big fish, dolphins, sharks, manta rays and whales. On my conservation requirements, you know, I've got to show those creatures to the general public. I feel that I am making a contribution.

Do you experience a relationship with the animals as you are working with them?
Yes, we do, but a lot of the time it's more of a connection at that instant. Where sometimes you'll definitely have an aggressive animal, other times you'll have a far more accepting animal. But mostly, because of the Mozambique current, where I do most of my local work, the channel itself is very big and large between Africa and Madagascar, the current is quite strong, so with most of the animals we are photographing, you don't have a chance to
repeat the scene. You’ll just be lucky. You’ll see a whale for probably five minutes, or you’ll see dolphins for under five minutes, and within that time, you’ve got to get in, position yourself, know what you are trying to achieve, get your technical shooting criteria right and make the shot.

There are now more cases where animals such as dolphins are quite habituated to humans in places such as the Red Sea or the Caribbean. So, the challenge from an African perspective is quite a lot larger just because of the conditions that we work in.

What type of techniques, film and equipment do you use? The first decision you have to make is basically whether to do SCUBA or to do free diving. Most of the big animals, whales and dolphins, things of that nature, can be photographed much better on breath hold. So, obviously, you need time to develop your skills and become a better free diver. I can probably go only to about 15 or 20 meters on a breath… granted that’s not very long, but that’s enough if you are going to go photographing one of those larger creatures. Obviously, sharks, manta rays and various other things you can do on SCUBA. But that’s the first technique you have to understand… how you are going to be in the water, and the second thing you need to work out is what equipment you are going to take with you. My favourite lens is the 16 mm lens. F100 in Sea & Sea housing… That’s the basis of the equipment primarily. But in the future, we have got to go digital when we have the money to buy the equipment. I would like to work with the digital camera systems.

Another challenge in Africa is that we have a shortage of equipment. There are one or two distributors who import equipment, so here, we do not have a choice of equipment, not like New York City would have.

What are your favourite locations? The best are obviously the cleanest water I can find. We are not like the Red Sea, the Pacific or the Caribbean, where there is clear water year round. We are on a temperate sea, which means the temperature will fluctuate between 28°C in midsummer to 6°C in summer on the Atlantic side of Cape Town, South Africa. We get a lot of plankton and a lot of algae bloom, so our water is not always ideal to take great photographs in. So, my favourite location is anywhere with clean water and preferably above 20°C. Trying to work in water that is colder than, say, 10°C is quite challenging on the body.

Do you ever use a dry suit? Yes, but not often as they are a lot more bulky, and therefore much more restricting. Where we shoot whale sharks, the water temperature ranges from 10°C to 14°C. So,
within that range you can be in the water with
a 7mm wet suit for about an hour and still be
okay.

Who are your greatest influences?
I think that David Doubilet, with his use of black
and white, is just spectacular. And he is probably
one of the individuals who has contributed most
to the industry as to the artistic side. While he
does the job, he also uses such spectacular im-
agery. It's unbelievable. So, he is definitely a great
example for me.

And then there are other individuals such as
Doug Perrine and Amos Nachaum, who travel
the world shooting particular animals. But I will
tell you where I find more inspiration... if you
go, for arguments sake, to www.underwaterpho-
tography.com, and look at some of the entries
that normal everyday people are in to, it is amaz-
ing how everybody will have unique ideas.
The only thing about it is that sometimes they
technically can't produce a really good image out
of their idea. So, often I'm just looking through
other people's submissions, and I keep thinking
that it will give me an idea or I will take the ba-
sic idea that they have done and add things to it
myself.

And that is why the online competition forum
is so powerful, because it is an ongoing proc-
ess. It is one of the tools I use. You can never be
too above looking around you and learning new
things.

Have you taught any workshops yourself?
I have done a couple of workshops here for the
local community. It's great fun. Unfortunately,
the down side of living in South Africa is that un-
derwater photography will not make you a great
living. You can hardly survive on it. It gives you
few choices really. Well, I will always continue
my underwater photography. I will either start
going global, which I am hoping the underwater
competition will help me with, or I must now
get some other business venture going and then
continue with my photography when I can.

Future goals?
I would love to be able to photograph some of
the unique sea creatures that I am interested in
doing myself, and that would be sperm whales
or some seals and various fish like tuna. Cre-
atively, I would like to do a lot more creative work
with models. But that's a very difficult challenge,
because then you've got even more complexities
to deal with. So, photographically, what I would
like to achieve in the long run is my individual
contribution to the conservation of the oceans,
and then commercially, I am looking to other
business ventures that will allow me to continue
with my passion for photographing the under-
water world.

For more information on Andrew Woodburn or to
order his images online, go to his web site at
www.liquipix.net
or browse through his portfolio at
www.africaimagery.com
www.africascuba.com

For information about or to enter your images in
the ongoing global competition in underwater pho-
tography, go to:
www.underwaterphotography.com
South African Adventures

photography by Andrew Woodburn

Andrew Woodburn relaxes at his home in South Africa

PHOTO BY FIONA AYERST
Left: Woodburn in action photographing South African marine life

Right bottom: A diver explores the rudder of a wreck, South Africa

Mozambique: Magic carpet, Manta ray and photo buddy Guinjata Mozambique
Clock-wise from top left: Porcelain crab hiding in an anemone for protection amongst stinging tentacles, Mozambique; Free diver with wild bottlenose dolphins breath holding at 20 m deep above the sand in Ponto do Ouro Bay, Mozambique; A clownfish hides in a nest of anemone tentacles; Dynamic contrast patterns of a moray eel; A diver explores one of the many colorful coral gardens in the seas around South Africa.
Diver and manta ray silhouette showing shark bites at Inhambane Manta Reef, Mozambique

Frog fish under South African moon

Free diver

A diver shows off his talents
Wooden fishing boats wait on shore in Mozambique

Sunset at South African pier

Big air surf-ski, Guinjata Bay, Mozambique

To order these or other images, contact Andrew Woodburn directly at the website below: