

LIGHTHOUSE

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Netherlands' Artificial Island

Sri Nanda Kumar -B.Tech-IV

Netherlands is building artificial islands on water to preserve wildlife in one of Europe's largest re-wilding projects

The Dutch will be building an archipelago on a 700 square kilometers expanse of water body to protect the biodiversity and wildlife of the area.



Marker wadden an archipelago developed with 5 islands by Dutch on Markermeer lake in Netherlands

A new artificial archipelago of five islands will be developed on the Markermeer lake in Netherlands by the Dutch to bring nature back to the area. It will be a typical engineering project for a low-lying country.

According to Andre Donker, a Dutch ranger, it is one of the largest rewilding operations in Europe.



Marker wadden is built by the Dutch to preserve wildlife in the area

The archipelago will be developed on this vast 700 square kilometer (270 square miles) expanse of water body. This lake was lacking any aquatic life until recently.

The project, initiated by Natuurmonumenten, a Dutch non-governmental organisation for the preservation of nature, costs 60 million euros (USD 68 million). Much of the money is donated by individuals.

The Dutch used an innovative technique, forming the small islands or islets with silt, a sedimentary formation halfway between clay and sand.

The Project Head at Boskalis, Jeroen van der Klooster said building an island with sand is a common technique used all over the world, but the use of silt in this project is unique.

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R.L. Institute of Nautical Sciences, Madurai.

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Vertical Integration Course for Trainers Programme at RLINS



Dr. G.R. Balakrishnan, Editor, Sagar Sandesh, Madurai delivers guest lecture during a 10 day VICT programme held in our campus.



Dr. R. Lakshmi Pathy, President (sitting at the centre) along with Guest speakers and participants of Vertical Integration Course for Trainers (VICT) programme.

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Netherlands' Artificial Island

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The team will dig a 1,200-metre corridor on the main island to allow the silt, led by strong ocean currents to form marshy areas, fertile soil and reservoirs where migratory birds can eat.

History of the lake Markermeer



The Dutch will be building an archipelago on a 700 square kilometers expanse of water body to protect the biodiversity and wildlife of the area.

The lake was once part of the Zuiderzee, an engineering wonder of the world completed in 1932, which closed off a huge expanse of water to keep out the North Sea and combat flooding.

It is vital for a country where 26 per cent of the land is below sea level, the scheme created an inland lake and polders, land reclaimed from the sea, but at a cost to the environment.

Over the subsequent decades, sediments used to create a dyke separating the Markermeer from a neighbouring body of water, the IJsselmeer, washed away and sunk to the bottom of the lake.

That turned the water cloudy, negatively impacting fish and bird populations, plants and molluscs. Still-sparse vegetation covers a large part of the 700 hectares that have been built anew in the lake.

Recent initiatives to turn the lake into a home for aquatic life

The islet plan is among many being worked on by the Netherlands, which is one of the most vulnerable countries in the world to climate change.

Since October, the port city of Rotterdam has hosted the headquarters of an international climate commission led by former UN secretary-general Ban Ki-moon and Microsoft founder and climate activist Bill Gates.

How this lake is helping to re-introduce plants and animals

- The five small islands were built in two and a half years and have already served as a resting place for 30,000 swallows this year.

Experts recently counted 127 kinds of plants in the area, most of which have been brought in by windborne seeds.

- In the water, there is home for a huge number of plankton that guarantees a large amount of food for the birds.

- Three wooden bird observatories, a house for the island's guardian, 12 kilometres of footbridges and unpaved roads have also been built on the main island, which is open to the public.

Courtesy:educationtoday



KNOW YOUR OCEANS - THE SEA MOUNTS AND GUYOTS

Meenakshi Sundaram B - OFFICE SUPERINTENDENT / FACULTY

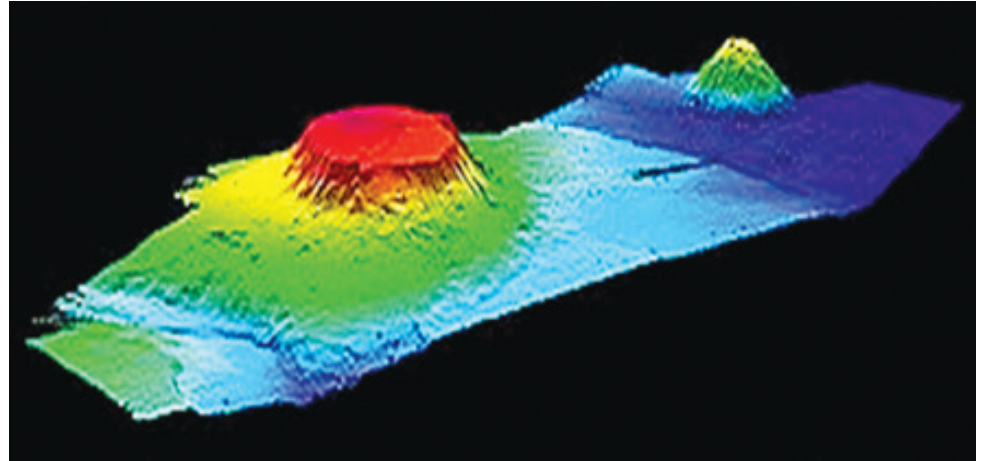
SEAMOUNTS

A seamount is a mountain rising from the ocean seafloor that does not reach to the water's surface (sea level), and thus is not an island. These are typically formed from extinct volcanoes, that rise abruptly and are usually found rising from a seafloor of 1,000 – 4,000 meters (3,281–13,123 ft) depth.

They are defined as independent features that rise to at least 1,000 metres (3,281 ft) above the seafloor. The peaks are often found hundreds to thousands of metres below the surface, and are therefore considered to be within the deep sea. It is estimated that more than 100,000 seamounts are present across the globe.

Seamounts come in all shapes and sizes, and follow a distinctive pattern of growth, activity, and death. Because of their abundance, seamounts are one of the most common oceanic ecosystems in the world. There have been instances where naval vessels have collided with uncharted seamounts; for example, Muirfield Seamount is named after the ship that struck it in 1973.

However, the greatest danger from seamounts are flank collapses; as they get older, extrusions seeping in the seamounts put pressure on their sides, causing landslides that have the potential to generate massive tsunamis. Seamounts can be found in every ocean basin in the world, distributed extremely widely both



in space and in age. Most seamounts are volcanic in origin, and thus tend to be found on oceanic crust near mid-ocean ridges, mantle plumes, and island arcs.

Nearly half of the world's seamounts are found in the Pacific Ocean, and the rest are distributed mostly across the Atlantic and Indian oceans. Seamounts are often found in groupings. A classic is the Emperor Seamounts, an extension of the Hawaiian Islands.

GUYOTS

A guyot also known as a tablemount, is an isolated underwater volcanic mountain (seamount), with a flat top over 200 meters (660 feet) below the surface of the sea. The guyot was named after the Swiss-American geologist Arnold Henry Guyot.

Guyots are most commonly found in the Pacific Ocean. Guyots show evidence of having been above the surface with gradual subsidence through stages from fringed reefed mountain, coral atoll, and finally a

flat topped submerged mountain. Their flatness is due to erosion by waves, winds, and atmospheric processes. The steepness gradient of most guyots is about 20 degrees. However, there are many undersea mounts that can range from just less than 300 ft to around 3000 ft.

Very large oceanic volcanic constructions, hundreds of kilometers across, are called oceanic plateaus. Seamounts are made by extrusion of lavas piped upward in stages from sources within the Earth's mantle to vents on the seafloor. The trend of a seamount chain traces the direction of motion of the lithospheric plate over a more or less fixed heat source in the underlying asthenosphere part of the Earth's mantle.

There are thought to be an estimated 2,000 seamounts in the Pacific basin. The Emperor Seamounts are an excellent example of an entire volcanic chain undergoing this process and contain many guyots among their other examples. Another factor contributing to the guyots being underwater has to do



with the oceanic ridges, such as the Mid-Atlantic Ridge in the Atlantic Ocean.

Mid-ocean ridges gradually spread apart over time, due to molten lava being pushed up under the surface of the earth and creating new rock. As the mid-ocean ridges spread apart, the guyots move with them, thus continually sinking deeper into the depths of the ocean.

Thus, the greater amount of time that passes, the

deeper the guyots become.. Although guyots can be hundreds of millions of years old, there have been some recently discovered guyots that were only formed within the last 1 million years, including Bowie Seamount on the coast of British Columbia, Canada. One guyot in particular, the Great Meteor Tablemount in the Northeast Atlantic Ocean, stands at more than 4000 m (13,120 ft). The guyot's diameter is 110 km (68 mi).

Campus Interview at RL Institute of Nautical Sciences

SEA TEAM MANAGEMENT, a Singapore based company formed in 2009 and obtained their document of compliance in early 2010, conducted interview for selecting meritorious and eligible mariners to induct into their erstwhile organization. The company's stated aim is to be recognized within the industry as a top quality provider of ship management services. The campus interview was held on July 12, 2019 under the dynamic leadership of Captn.G.Ramaswamy, CEO, Sea Team Management Pvt. Ltd. Chennai and Captn. Soma Sundar, Quality & Safety Coach – Training Superintendent. The recruitment process was very systematic in which there was a computer based screening test in the beginning which was followed by a personal interview at the board room of our institute. Eight cadets of B.Tech. ME - IV year were selected for the post of "Trainee Marine Engineer". RLINS wishes them a successful and prosperous career on board.



Ashwini Vatsa - ID1559608006



Bishal Das - ID 1559608008



Himanshu Gupta - ID 1559608011



Jitendra Girish Patil -
ID 1559608012



Rajan Pandey - ID 1559608016



Sandeep Tiwari - ID 1559608020





Shah Zeb - ID 1559608021



Shashi Kaushal - ID 1559608022



▶ Captn.G.Ramaswamy, CEO,Sea Team Management Pvt. Ltd. Chennai, Captn. Soma Sundar, Quality & Safety Coach - Training Superintendent in discussion with Mr. M.Subramanian, Adviser-Technical and Mr.Bhaskar Agnihotri, Principal, RLINS.

Computer based screening test in our computer lab is in progress to short list the candidates for the next level of personal interview for the post of “ Trainee Marine Engineer”.



Port Visit to Tuticorin

Akash Singh - B.TECH-IV



On entering the port, we were allowed to go on board a ship that was a bulk carrier and a tug boat. The bulk carrier was operated by APJ company and the tug boat was operated by the Tuticorin port trust. Soon after getting permission, we were welcomed on board and were illustrated about the ship's engine, pumps, the muster station, emergency fire pump, the steering compartment and cold storage etc. Having cleared all our doubts and having learnt from the experience of the crew, we took our leave off and again started our journey from Tuticorin port to the college. On our way back, we halted on the same restaurant and had our lunch and shared our memorable experience we had during the visit . After the mustering done and With the approval of our OIC, we boarded the bus and started the journey back to our college.

Our port visit ended enabling us to learn how work is carried out onboard and we were able to assimilate all the experiences, merits and demerits of the job at sea.

On 26th April 2019, B .Tech. ME-IV year and, B .Tech. ME II year got a chance to visit the Tuticorin port which is operated by V.O.Chidambaraner Port Trust situated in the Southern part of Tamil Nadu. On 26th morning all the cadets with OIC Mr. P.Laxman and Mr. Uma Maheshwaran ,senior faculty started a two hour journey to Tuticorin port by bus. On the way to Tuticorin port we halted at a small restaurant for breakfast and then after a short break we resumed our journey.



Marriage of Mr. Porchezian's Daughter



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Phone : 0452-391 8615 / 391 8614 email : admission@rlins.in / rlins@rlins.in

