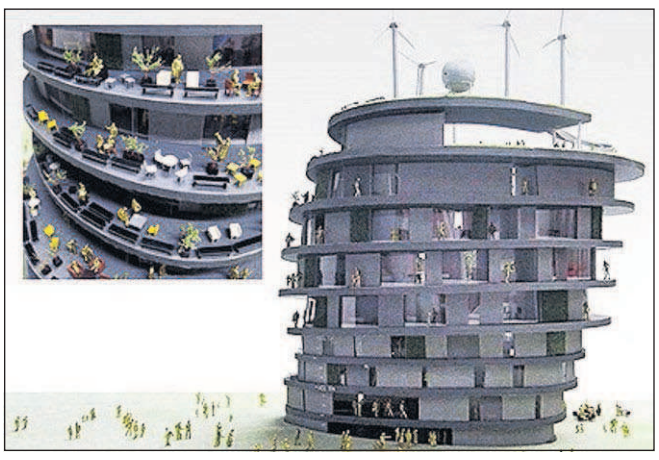
TOWER OF STRENGTH



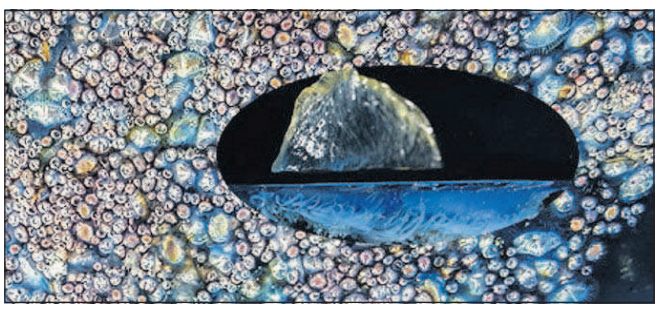
Japanese architect **Hiroshi Nakamura** has come up with a totally innovative design for a community **tsunami evacuation tower**, which can be seen on the Architecture & Design Magazine website at http://tinyurl.com/evactower. The architect's illustrations are shown.

In normal times, the tower, which has a ramp running around its exterior, would be a community hub. Ideally, it would be located at a large intersection, in a flat place that is easily accessible on foot. By providing a safe place to go in a disaster, it is hoped these towers would help community members be able to stay in their homes without being uprooted and forced to move to higher ground.

Inspired by a shark's skin, which "smoothly channels water away from its surface," the architect said. The cylindrical bottom of the tower allows the rushing tsunami water to easily flow around it, with the ramp entry facing away from the oncoming surge. Up to a height of about 50 feet, the ramp is covered with walls of reinforced concrete to protect both the building, and the evacuees as they climb to the upper levels, which provide a safe place to wait out the disaster.

One of these towers would look pretty interesting in Seaside, wouldn't it?

LEFT OR RIGHT?



"The sand was saturated with millions of tiny **Velella velellas** near the Peter Iredale Thursday," **Tiffany Boothe** of the **Seaside Aquarium** wrote, describing her photo, which is shown.

So what are they? The 2-3 inch long critters are normally found out at sea floating on the surface in colonies, according to Jellywatch.org (http://jellywatch.org/velella). The Velella's typical blue sail and below-water detail are shown, inset, in a screen shot from "The Secret Life of Velella: Adrift with the by-the-wind-sailor."

Did you know that most Velellas are "left handed," with the sail going from upper left to lower right? But, of course, there are some rebels in the fold who are "right handed." Scientists wonder if this reflects a preferred sailing direction in northern and southern hemispheres, or eastern and western ocean shores. Guessing aside, no one has been able to actually prove this theory yet. If you want to go out to the beach and start counting left and right-sailed Velellas, feel free to report your findings at Jellywatch.org

So how did they get here? While the wind moves Velellas along by their little sails (be they left or right-handed), they can only move downwind or at a slight angle to the wind. Not being able to change directions sometimes causes them to be pushed en masse directly onto the shore, which is how they wound up in Hammond.

ROLLIN' ON THE RIVERWALK

Dave Kinney is a fan of **hoverboards.** "They're a lot of fun, and because of my bad back, I can only walk. (The hoverboard) makes it so I can get a better cardio workout for my dog, while getting a little core strengthening for me, in the process." He is pictured on the Riverwalk with his Pug, **Squirt**.

"I get lots of questions about how to operate it, and I usually just answer 'I use happy thoughts,'" he said. Is he worried about hoverboards being a fire hazard? Nope. "If charged properly and correctly according to the manufacturers instructions," he insists, "they will not catch on fire."

"Other than taking a hit in the cool factor and looking like an uber geek," he added, "these boards are a lotta fun and can benefit folks like me, who need something to help out with their pets."

In One Ear

by Elleda Wilson

ewilson@dailyastorian.com (503) 325-3211, ext. 257

BE WARNED

Today is the **fifth anniversary** of the **2011 Japanese 9.0 earthquake**, which took place on a subduction zone some 80 miles off the coast, very similar to the **Cascadia Subduction Zone**, which is about the same distance off Oregon's Coast. Here are a few downright scary facts about the quake, from The Telegraph (http://tinyurl.com/telefacts):

The 5-minute earthquake's energy was that of 8,000 Hiroshima atom bombs when the 280 miles of the earth's crust fractured. The coastline sank 4 feet in some places, and the entire Japanese archipelago shifted 8 feet east — but the Oshika Peninsula shifted 17 feet east, and the planet itself was shifted 4 inches by the tremor.

Naturally, an earthquake of that size also generated a **tsunami**, which reached a maximum height of about 130 feet (think about it — the Astoria Column is 125 feet tall). The wave was 30 feet high in many coastal locations, but the sea walls averaged only about 20 feet high in the districts that had them.

Two hundred million tons of water hit each kilometer (3,280 feet) of the Tohoku coast in four or more waves that went inland for several miles. A photo of some of the damage is shown, courtesy of Lance Cpl. Garry Welch, U.S. Marine Corps. More photos are available at http://tinyurl.com/tsupix

When the tsunami hit, **Hiromitsu Shinkawa** (pictured inset in an AP Photo) was running to get away, then turned around to get something from home. The result? He was swept 10 miles out to sea on the wreckage of his house, where he stayed for two days until he was rescued by the Japanese navy, according to another story in The Telegraph (http://tinyurl.com/float10). "I thought today was the last day of my life," he said. And it easily could have been.

Don't want to get caught like he did? Be prepared: Check out Oregon tsunami evacuation maps at http://tinyurl.com/NCevacmap. Know where to go, and, where not to.

CATCH THE WAVE

Rogue waves, towering spontaneous waves that suddenly rear up from the surface of the ocean, are responsible for many ships being lost. They are especially dangerous because they appear with no warning. The good news is that Gizmag reports that researchers at the Massachusetts Institute of Technology (**MIT**) have developed an **early warning system** that can predict when a rogue wave is likely to hit, and give ships a little time to prepare (http://tinyurl.com/rogueseer). The wave photo is courtesy of MIT News.

Previous attempts at rogue wave detection have consisted of complex systems that take too long to completely analyze the nearby wave data, making them ultimately too slow to be useful. MIT's method is faster — not analyzing every wave, instead looking for groups of waves that roll together. Apparently it's these groups that exchange energy with each other and eventually merge to form a monster rogue wave.

"The system uses an algorithm to determine the probability of these groups forming rogue waves based on their length and height," the article says, "which as identified by analyzing wave data gathered by ocean buoys, combined with specialized wave water equations." With this system, MIT researchers say the system can predict rogue waves 2-3 minutes before they fully develop.

Sounds great, right? The only problem is that to use this technology, ships need to be fitted with "compatible high-resolution scanning equipment, such as LIDAR (Light Detection and Ranging) and radar." Hopefully, shipping company owners will take note.

FLASHY PROPOSAL

"One of our (Jewell School District) maintenance staff, **Jon Rausch**, **proposed** to our 3-4 grade teacher, **Kayla Vail**, this morning (Tuesday, March 8) using our school reader-board to surprise her," **Don Anderson**, who teaches language arts at the school, wrote. His photo of the couple is shown.

"They met at Jewell School," Don explained. "John is a former student of Jewell, and Kayla has been teaching here for three years. They live close to the school in the Jewell area." Judging from the look on her face, the Ear is fairly sure the answer was yes.

WHERE THERE'S LIFE ...

As devastating as the effects of the **2011 Tohoku earthquake and tsunami** were — and still are — on the people and land, amazingly, five years later, a variety of **marine life is flourishing** on the coastal seabeds in the **debris** left by the double disaster, The Chicago Tribune reports (http://tinyurl.com/livelydebris).

A screen shot is shown from a video of the seabed, courtesy of NewsOnJapan.com (http://tinyurl.com/life-debris).

According to research conducted off the Tohoku coast by the Japan Agency for Marine-Earth Science and Technology (JAMSTEC) and other organizations, the marine organisms (like ragworms) that live around the debris are attracting channel rockfish, conger and snow crabs, who dine on them.

Photos taken by a robot from March 2012 to November 2015 showed that an average of 114 critters per square meter were found around the tsunami debris — which is 14 times more sea life than in unlittered areas about 16 feet away. The organisms don't seem to care what kind of debris they live in, but they are more prevalent in the seabed valleys, which are piled up with it, than in the flatter sections.

Big bulky items that were a danger to ships and navigation have been removed, and the sea floor will be mapped. "Confirming the situation of organisms on the seabed after the 2011 disaster will surely be useful for fishing in the future," said **Katsunori Fujikura**, a senior JAMSTEC researcher.

FISH STORY

Believe it or not, a **baby shark** in **Seaside** made the news in the U.K. "Heartwarming moment a man picks up a stranded baby shark in Oregon and releases it back into the sea," the headline read in a Daily Mail story that ran Friday, March 4 (http://tinyurl.com/grabshark).

The man in question was Idaho resident and marine biologist **Alan Holyoak**, who, while taking a stroll with his wife on the beach at Seaside, found a baby shark that was in extreme distress and rolling around in the surf. "At first I thought it might be a stranded dolphin or porpoise pup," he said. "But when I ran over and got close enough to see it was a shark, I had the shock and thrill of my life."

In case you're wondering, it was a salmon shark, **Tiffany Boothe** of the **Seaside Aquarium** told the Ear. "We see about a half dozen or so each year, all about that size," she said.

Anyway, Holyoak grabbed the 46-inch long baby (which has a full set of razor-sharp teeth, by the way), and carried it out into deeper water. Luckily, he was not bitten. He and the shark are pictured in Caters News Agency photos, courtesy of the Daily Mail online.

"It was having a hard time, but at least it was getting back into the waves — luckily it managed to get its bearings and make it into deeper water," Holyoak recalled. "I hope this shark was simply disorientated, and is fine now."

"This is the biggest fish I've ever caught," he noted, "and it's a story I'll love telling over and over."

COMMUNITY NOTES

SATURDAY

Lower Columbia R/C Society — 8:30 a.m., back room at Uptown Cafe, 1639 S.E. Ensign Lane, Warrenton. Local Academy of Model Aeronautics (AMA) chartered radio control model aircraft club meets for breakfast and business. All model aircraft enthusiasts are welcome. For information, call 503-458-5196 or 503-325-0608.

Sit and Stitch Group — 11 a.m. to 1 p.m., Custom Threads, 1282 Commercial St. Knitting, crocheting and needle work. For information, call 503-325-7780.

Columbia Northwestern Model Railroading Club — 1 p.m., in Hammond. Group runs trains on HO-scale layout. For information, call Don Carter at 503-325-0757.

Spinning Circle — 1 to 3 p.m., Astoria Fiber Arts Academy, 1296 Duane St. Bring a spinning wheel. For information, call 503-325-5598 or go to http://astoriafiberarts.com

Clatsop County Genealogical Society — 1 to 4 p.m., Basic Geneaology Class, Church of Jesus Christ of Latter-day Saints, 350 Niagara Ave. Park in rear of church. All are welcome. RSVP is appreciated; call Carol Wamsher at 503-298-8917 or Sali Diamond at 503-325-1963.

SUNDAY

National Alliance on Mental Illness (NAMI) Support Group — 2 to 3:30 p.m., Seaside Public Library, 1131 Broadway. Family to Family Support Group, for anyone with friend or loved one suffering from a serious brain (mental) illness. For information, contact Myra Kero at 503-738-6165, or k7erowood@q.com, or go to www.nami.org

Lower Columbia River Chapter, Military Officers Association of America — 5 p.m., Bridgewater Bistro, 20 Basin St. Jim Knight, executive director, Port of Astoria, is the speaker, and will respond to questions. All U.S. armed forces officers, warrant officers, retired, reserve, active duty and former officers are welcome to attend. For questions, contact Capt. R. "Steve" Stevens (USCG ret.) at 503-861-9832.

Line Dancing — 5:30 to 8 p.m., Seaside American Legion, 1315 Broadway. For information, call 503-738-5111. No cost; suggested $5 tip to the instructor.

MONDAY

Scandinavian Workshop — 10 a.m., First Lutheran Church, 725 33rd St. Needlework, hardanger, knitting, crocheting, embroidery and quilting. All are welcome. For information, call 503-325-1364 or 503-325-7960.

Mothers of Preschoolers — 10 to 11:30 a.m., Crossroads Community Church, 40618 Old Highway 30, Svensen. MOPS group is a time for moms to relax and enjoy each others' company. For information, call 503-502-3118.

Senior Lunch — 11:30 a.m., Bob Chisholm Senior Center, 1225 Avenue A, Seaside. Suggested donation $3 for those older than 60; $6.75 for those younger than 60. For information, call Michelle Lewis at 503-861-4200.

Columbia Senior Diners — 11:30 a.m., 1111 Exchange St. Cost is $5. For information, or to have a meal delivered, call 503-325-9693.

Warrenton Senior Lunch Program — noon, Warrenton Community Center, 170 S.W. Third St. Suggested donation of $5 for seniors and $7 for those younger than 60. For information, or to volunteer, call 503-861-3502 Monday or Thursday.

Astoria Rotary Club — noon, second floor of the Astoria Elks Lodge, 453 11th St. Guests always welcome. For information, go to www.AstoriaRotary.org

Parkinson's Support Group — 1 p.m., Peace Lutheran Church library, 565 12th St. For information, call 503-338-8469 or 503-440-1970.

Peninsula Quilt Guild — 1 p.m., Peninsula Church Center, 5000 N Place, Seaview, Wash. Newcomers welcome. Bring nonperishable food donation. For information, call Janet King at 360-665-3005.

Knochlers Pinochle Group — 1 p.m., Bob Chisholm Community Center, 1225 Avenue A, Seaside. Cost is $1 per regular session per person. Players with highest and second highest scores split the prize. Game is designed for players 55 and older, but all ages are welcome.

Seaside Lions Club — 5 p.m., West Lake Restaurant & Lounge, 1480 S. Roosevelt Drive, Seaside. For information, call 503-738-7693.

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