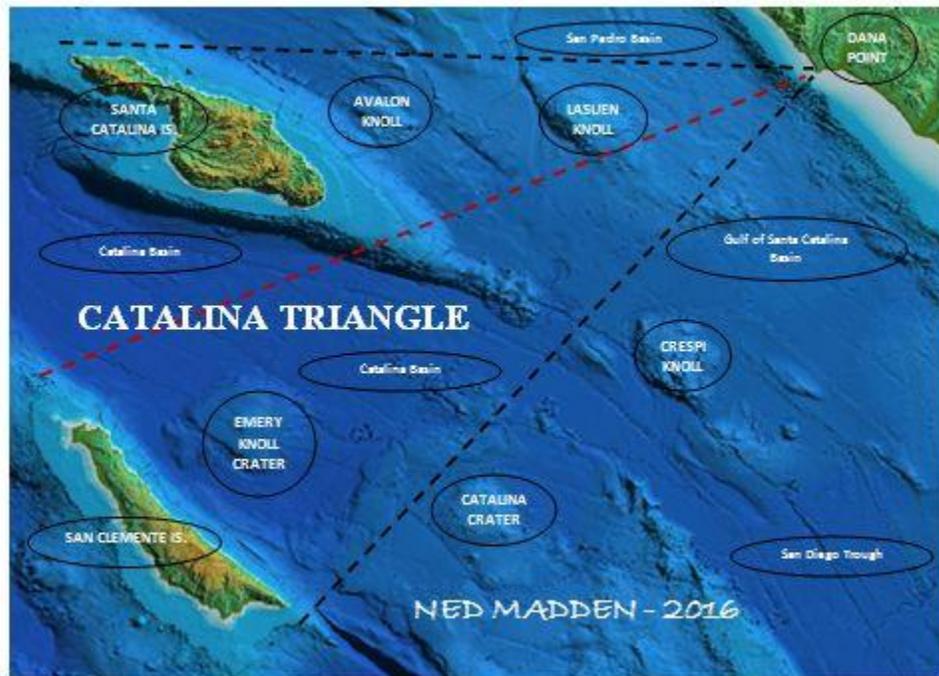


THE CATALINA TRIANGLE —

MAGNIFICENCE & MYSTERY MEET MAYHEM & MURDER MOST FOUL OFF THE SOUTHER CALIFORNIA COAST

Dedicated to the many men and women who have lost their lives in the Catalina Triangle

by Ned Madden, San Clemente, Calif. – 2017



* * *

"...The lure of the sea is some strange magic that makes men love what they fear. Death on the shifting barren sands seems less insupportable to the imagination than death out on the boundless ocean, in the awful, windy emptiness. Man's bones yearn for dust."

— Zane Grey

"If a life is taken close to the 33rd Parallel North, this fits with the Masons' demonic mythology in which they demonstrate their worldly power by spilling human blood at a predetermined locale."

— "Masons and Mystery at the Parallel" by Day Williams (Anti-Freemason Christian writer)

A bee on a balloon and a kite on the moon ...

The Catalina Triangle ... a 1,200-square-mile pie-slice-shaped wedge of Pacific Ocean off the OC coast in between Dana Point, Santa Catalina and San Clemente islands ... works in mysterious ways, and, yeh, I did once look up to glimpse that very real and singular close-bee-balloon/far-kite-moon visual floating before my eyes as I walked along the Capo Beach strand.

No surprise. I've come to expect Catalina Triangle strangeness – like the Avalon “sleepkiller,” the 33rd Parallel/“Bloodline of the Earth” link, Natalie Wood and Phil Hartman, St. John Capistrano: “Scourge of the Jews,” sado-masochistic padres and blood-soaked natives, ghosts and pirates, a 30-kiloton nuke, mountain ranges spun sideways, sinking islands and northwest-trending fault epicentrum, Borderland and Bight, Gyre and eddy, countercurrent and undercurrent, earthquake and tsunami, moonscape sea craters and underwater knoll oases, Navy SEALs’ bin Laden-killing fake city, a real building made of human bones, largest animal (with the largest penis, a ten-footer) ever to draw breath and spout water vapor (the animal, not the organ) in the long sweep of phallic time on Mother Earth herself ... beginning-of-life stuff.

Plenty of end-of-life stuff, too, though ... much of it human-scale, some of that deliberate, brutal.

Climbing *Cotarro del Diablo*

Catalina Triangle peculiarities roil my brain whenever I make the climb up to Devil’s Roost (*Cotarro del Diablo*), a tourist overlook ... named for long-ago looting *piratas* ... that’s built on a perch atop Orange County’s Dana Point Headlands promontory, 200 feet above sea level.

I feel the Triangle’s touch on my wind-wrapped skin and inhale the ocean’s strong, briny pong of seaweed kelp blowing in from afar. I look out into the Pacific Ocean toward Catalina and San Clemente islands on the horizon and take in the whole of the Catalina Triangle ... open on full display before my eyes yet still resolutely opaque to my gaze.

In the Triangle, reality rules but seldom illuminates. Factbits circle factoids to drive the drama, so working out the puzzle of the place takes time.

The obscure, secret world of the Catalina Triangle off the SoCal coast had escaped my notice until its primal pull eventually proved irresistible in a shoe-waits-foot sort of way.

Uber Factbit: Everything and everybody in Southern California west of the Salton Sea, Cajon Pass and Tejon Pass are “northwest trending,” heading toward Alaska at the rate fingernails grow, one earthquake at a time.

To help tighten this telling of the Triangle tale, I proceed via arbitrary arrangement and random rundown of often mindbending mystery, madness ... even murder most foul.

Factbit: In 2001, Stephen Reitz, 28, of Coronado ... later convicted by a jury in the slaying of his girlfriend, Eva Marie Weinfurter, 42, also of Coronado, in a Catalina Island hotel room ... told police that during the fatal bludgeoning and stabbing incident he had been sleepwalking and dreaming he was fighting off an intruder — a losing trial defense later derided in the media as “sleepkilling.”

I watch cloud shadows shift across the open ocean surface as alternating bands of azure and indigo bracket a retreating crystal sun trail crossed by trawler wakes. Ruffled gust-blown whitecaps churn the middle distance and far-off sailboats, ferries and the occasional yacht (though those folks generally keep “Havin’ Haven” parked safe in the harbor) torque upwind through rough chop out to sea. Cruise ships and freighters slowly make their way around and through the Outer Santa Barbara Passage separating Santa Catalina and San Clemente islands, where the Catalina Triangle generates much of its news, good and bad.

Beneath the shifting ocean surface exists rocky reefs and offshore banks, underwater canyons and towering seamounts ... plus coral gardens and kelp forests that harbor an extraordinarily diverse number of marine species and support the economic well-being of commercial fishing and tourism.

Multi-beam echo sonar, marine gravity meters and other penetrating technologies can help map and measure Triangle seafloor structures and sediments, but still the deep keeps many secrets.

Factbit: "Hard to say exactly how many vessels are out there. In the area from Point Vicente (Palos Verdes), Catalina, SCI and the border, there is likely to be over 100 planes and a greater number of wrecks, including small craft. I would say the numbers are in the hundreds, maybe close to a thousand." — Steve Lawson, President, California Wreck Divers

Based on all the discombobulating Triangle folktales, a general weirdness emerges as the only consistency among the many incidents attracting attention and interest here. The Triangle's lush fierceness encourages hearsay about happenings and so generates endless naked nuggets of often outrageous information concerning separate, distinct, mostly unrelated examples of local craziness.

Building of Human Bones

Consider the top bizarro, profane, credulity-straining Triangle man-built space ... a tourist necropolis.

Factbit: From 1922 to 1950, archaeologist/graverobber "Doctor" Ralph Glidden operated what he called the "Catalina Museum of Island Indians" on a hill overlooking Avalon Harbor on Catalina Island. The place was literally built of the bones of the Tongva, Native Americans who inhabited the Southern Channel Islands for millennia. The sorry details are laid out in an *Indian Country Today Media Network* article titled ["The Sick Obsession of Dr. Glidden & His Museum Built With Sacred Bones"](#) by Dina Gilio-Whitaker. Newspaper accounts from that era by publicist Alma Overholt describe the "museum" as a "unique and weirdly spectacular institution" with windows edged in toe, ankle, wrist and finger bones, and shoulder-blade cornices. Leg and arm bones served as brackets for shelves lined with skulls. Ceiling panels were decorated with vertebra and rosettes of shoulder blades.

The enormous amount of hugely varied data constantly pouring out of the Triangle defies attempts at neat synthesis. The sheer volume of wacky, unconnected factbits makes any general survey impervious to a unifying narrative.

For example, seen from the Dana Headlands, Santa Catalina Island looks genuine enough, lingering out there on the horizon. But what anyone looking at it sees is really just a temporary illusion, a passing fancy in planetary deep time. In the here and now, though, the slowly moving island does present us with a potentially dangerous situation.

Factbit: Catalina Island, which leans coastward, is reportedly sinking into the ocean at the rate of one foot per millennium, and in a geologically short amount of time ... perhaps three million years ... it will dip beneath the waves. Chris Castillo is in the Crustal Tectonics research group in Stanford University's Department of Geophysics. Castillo uses seismology and sequence stratigraphic methods to study marine terraces of Southern California's Continental Borderland. Research by Castillo has found evidence on Catalina Island, an ancient Farallon Plate relic, of old landslides along a fault pointing toward the coast. The recurrence of such submarine

landslides resulting from seaquakes near Catalina Island could pose a tsunami risk for Southern California. Sliding rock and dirt on the island produced by a seaquake could precipitate a large tsunami wave aimed at the coast ... and the shuttered-but-still radioactive San Onofre Nuclear Waste Station directly in its 50-mile path from Catalina.

Where West meets East ... Bight's the Big One

The Catalina Triangle sits at the hub of the **Southern California Bight**, the broad, curved, concave 300-mile-long indentation of SoCal's shoreline from Point Conception above Santa Barbara County all the way down into Mexico, plus its submerged seaward **Continental Borderland**, the capacious 155-mile-wide area of the Pacific Ocean between the continental slope ... where the edge of the continental shelf drops away toward the deep ocean abyss ... and the SoCal shore, home to us all.

The Bight/Borderland area – mostly invisible but profoundly essential in our lives (it being where we live and all) – possesses a salient spirit, a thrumming energy core, a fast-beating geo-heart called the Catalina Triangle.

Which makes the Bight/Borderland highly dangerous to us all.

The Bight/Borderland exists because we live along a “collision coast” – the leading edge of active plate margins where the Pacific and North American tectonic plates are colliding.

In this singular planetary microcosm, West (North American plate and continent) becomes East (Pacific ocean and plate) in a convergence zone where some of the world's greatest forces — sky, sea, continent, tectonic plates — meet and smash and clash and crash in an epic encounter that keeps even the rocks rocking ... from sub-audible and nearly imperceptible daily earthquakes on up to big killer temblors that can rattle our homes, break our bones.

Factbit: A [study](#) published in May 2015 in the American Geophysical Union's (AGU) Journal of Geophysical Research: Earth Surface, identified the Southern California Bight/Borderland region and described it as "a little known, fault-riddled undersea landscape off of Southern California and northern Baja, California" – as having the capability of producing magnitude 7.9 to 8.0 earthquakes, which could generate tsunami waves that would batter the SoCal coast

For sheer spectacularness, nothing can top the Triangle's own origin story.

Bizarre is Born

No matter the precise origins of ANY Catalina Triangle anomaly, they all lead back to the ultimate source of the jumbled Southern California Bight/Borderland terrain ... the Pacific Plate, our underworld plutonic master.

Factbit: A tectonic plate (also called lithospheric plate) is a massive, irregularly shaped, 60-mile thick slab of solid rock, generally composed of both continental and oceanic lithosphere, Earth's rigid outer part consisting of the crust and upper mantle. Intense heat in the Earth's core causes molten rock in the mantle layer to move in a pattern ... called a convection cell ... formed when warm material rises, cools and eventually sinks down. Movement in the mantle layer moves the floating tectonic plates. Earth has seven major (the Pacific and North American plates are the largest) and many minor tectonic plates.

Pacific Plate movement created the Bight/Borderland region by ripping a huge crustal block underlying the proto-Transverse Ranges away from the west coast of North America, spinning it sideways and slamming it up into the ass-end of Northern California's coastal mountains above Santa Barbara County at Point Conception.

The Catalina Triangle nestles centerpoint in the fault-riddled space the captured block left behind – the “**Inner” Continental Borderland**.

As the Pacific Plate moves northwestward with its captured chunks of the North American continent, we the people riding along go "northwest trending" with it. From Baja Mexico through SoCal up past San Francisco, we're all drifting onward with the Pacific Plate, veering left laterally in the direction of the North Pole, leaving behind the rest of North America (including our neighbors in Bakersfield, Mojave, Palmdale, Barstow, Victorville, etc.). At the epicentrum of this continental driving movement sits the Triangle.

The Catalina Triangle hunkers at the epicenter of immense, earth-shattering, world-making geoforces unleashed upon the North American continent by the Pacific Plate during the past 20-30 million years.

The Pacific plate first spun counter-clockwise out of the South Pacific and up into North America, tearing away the crustal block underlying what would become the Transverse Ranges around L.A., ripping the block right out of the earth's solid shell and rotating it into Northern California.

The resulting super-colossal ripout and impact created Southern California – the Santa Monica, San Gabriel, San Bernardino and Tehachapi mountains (Transverse Ranges), the Southern California Bight region, the offshore Continental Borderland, and ... the original L.A. crash pad and current home to us all ... the “Inner” Continental Borderland: the fault-riddled, earthquake-active ocean bottom between the coast and Catalina and San Clemente islands, locale of the Catalina Triangle.

Familiar Stranger

High up on *Cotarro del Diablo* (I made up that name), I can hear the seagull's cry and the sea lion's bark as the ocean sparkles around me. I watch waves tumble close to shore and savor the salt air ... or maybe I'm whiffing sweet ambergris, also known as whale vomit.

Factbit: Ambergris is secreted from sperm whale intestines. Ambergris is usually found floating on the ocean or cast ashore. Triangle whale ambergris ... largely consisting of undigested squid beaks and best described as “marine, animal and sweet” ... is a favorite of *perfumiers*, who use the waxy cholesterol ejecta as a fixative to help extend the shelf life of their expensive commercial scents.

Accompanying the Triangle's natural deep 'n dark disorder lurks an often freakish, sub rosa, rarely told man-made social and cultural history that can sometimes seem like a familiar stranger.

Factbit: Catalina Island is notorious for its UFOs. Ur sighting: on July, 9, 1947 (one day after the infamous Roswell, N.M. UFO incident occurred), three Army Air Force veterans reported

seeing six flying discs over Catalina Island, and former aerial photographer Bob Jung said he succeeded in [photographing one of the objects](#).

In the Triangle, size matters naturally.

Factbit: In the Catalina Triangle, Nature has gone Biggest-Life-of-All-Time with the giant Blue Whale – largest animal ever to exist on Planet Earth (max. 100 feet/190 tons). The whales summer in the Triangle by the hundreds. The immense, normally solitary creatures gather in the Bight for six months at a time, eating krill and dodging tourist boats and ship traffic. Typical Triangle excess: giant Blue Whale penis is the largest such organ of any known animal, past or present – 10 feet in length, 500 pounds, a foot thick, beachball-sized testicles weighing 150 lbs. per orb, as much as 30–40 pints of semen ejaculated in a single session of sexual intercourse. Little is known about the blue whale's mating behavior or breeding grounds, but all that prime orgo-gear means something and scientists do know that these mega-swimmers will travel several thousand miles during mating season and will eat virtually nothing for up to four months while they travel. This dynamic procreative force has brought back to pre-hunting levels a magnificent species that was once nearly pursued to extinction by humans. Nowadays, we just watch the long and slender baleen behemoths swimming, blowing and eating in the Catalina Triangle ... until one day each January the giant Blue Whales vanish from the Bight, headed out for global sea-parts unknown (to us, anyway).

Looking at Catalina and San Clemente from the Headlands invokes a 10,000-year stare ... archeologists have found traces of human occupation on the islands dating back at least that far and probably farther.

Factbit: Indigenous peoples occupied the Southern California coastal area and Channel Islands for more than ten millennia before the arrival of Spanish explorers in the 16th century. In the fifty years following the founding of Mission San Juan Capistrano in 1769, native populations were completely (and violently) removed from the islands. From a high population of 300,000 before contact with Europeans, the numbers of native Californians reached a low of 16,000 in 1900, reports journalist Mark Anthony Rolo in [Indian Country Diaries](#), a two-part series of film documentaries that explore the challenges facing Native Americans in the 21st Century. According to Alvin M. Josephy in his book ["500 Nations,"](#) the history of the California tribes "was as close to genocide as any tribal people had faced, or would face, on the North American continent."

History of the Mystery Elusive

The 120-acre "crown jewel" among California's coastal bluffs, the Dana Headlands top high crumbling cliffs that protect Dana harbor and jut out into the Pacific Ocean ... out toward the horizon and Catalina and San Clemente islands, twin Triangle wellsprings of beauty and savagery, often in equal measure.

The Triangle's roots tightly connect it with ancient spiritual and mystical alignments in the ley lines of our home terrestrial sphere ... the big blue marble ... adrift with us onboard in the vast sidereal distances of endless space-time.

In the Catalina Triangle, all-too tangible reality (like moving tectonic plates) co-exists with the profoundly abstract – the Triangle endures simultaneously as a mapping construct and an enigmatic nexus of the natural and man-made worlds intertwined.

Three wildly contrasting factbits about the exact same place:

Factbit: Within the Bight/Borderland, California Department of Fish and Wildlife has identified blue, gray and humpback whales, 481 species of fish, 195 species of birds, seven species of pinnipeds (fin-footed carnivores such as SEALS), four species of sea turtles and more than 5,000 species of invertebrates. The fruitfulness of the Catalina Triangle results from energy vortexes produced by powerful wind-driven ocean currents swirling and whirling over that fractured, hilly seafloor and twirling among and between the Channel Islands and the shore. The basic pattern of water movement in the Bight/Borderland is the oceanic Southern California Gyre, a ringlike rotating oceanic eddy system of ocean currents centered over Catalina and San Clemente islands. The island-shore land constraints get the perpetual motion ocean surging in swift, counterclockwise circular eddies spinning around the bowl of the Bight. Interacting cold and warm ocean currents and countercurrents come in toward SoCal from north, west and south, meeting in the Bight/Borderland. This convergence of warm and cold ocean waters produces a lush, vibrant, nutrient-rich “transition zone” ecosystem like none other on the planet.

Factbit: The Catalina Triangle lies squarely astride another imaginary-yet-real geo-political configuration – the 33rd Parallel North, the “Bloodline of the Earth” – a reputed planetary “life current” that includes the Triangle in a circle of global latitude shared with singularly historic places around the planet ... places to the east like Roswell, New Mexico (first modern UFOs), and Dallas (JFK), places to the west like Hiroshima and Nagasaki, Japan (first nuked cities), places on the other side of the world like Giza (largest ancient pyramid structures) and bleeding Baghdad (Middle East sepulcher). The 33rd North is humanity’s great cultural dividing line – most of the world’s wealth is stored to the north in financial centers like London, New York, Chicago and Switzerland, while most of this planet’s 7.4 billion people live south of the 33rd North.

Factbit: In 2004, OC geologist Mark Legg and colleagues [reported](#) performing bathymetric analysis of *the largest previously undiscovered caldera complex in western North America* – distinct near-circular offshore submerged “structures” protruding from the ocean floor just off the coast of San Clemente Island. Two ... Emery Knoll Crater and Catalina Crater (along with Navy Crater further south) ... exceed 20 miles across in diameter. Geologists can’t decide if these holes are either space rock impact craters or volcanic in origin. (No mention of possible artificial portals to an underground zone unknown to human surface dwellers). In any case, though it’s most likely volcanic, the exact root source of this caldera complex remains a Triangle mystery.

Mayhem, Magic, Intrigue in the Triangle

Seen in its entirety from the Headlands, the Triangle’s surface resists mere casual observation. Here, secretness confounds sacredness and quandaries seldom resolve. Example: in this place of surpassing beauty, contradictions abound and the Catalina Triangle can be surprisingly deadly when violent, bloody insanity bursts out anytime, anywhere, in sunlight or darkness, on dry land or in dark sea. .

Factbit: In 2008, business partners Robert Vendrick, a 71-year-old retiree from Phoenix, and Gary A. Shawkey, 47, a career con man and hustler from Virginia, boarded a sailboat in Dana Point Harbor and headed out to sea, supposedly bound for San Clemente Island to meet with U.S. government agents to discuss a lucrative investment in “top secret computer software.” Though Vendrick disappeared without a trace into the maw of the Triangle, Shawkey refused to talk. Despite the absence of a body, the killer got life without parole for Vendrick’s homicide.

Yet, sweet yang occasionally counters bitter yin, opposites can repel and good sometimes offsets evil to form a more perfect union of truth and truism in the Catalina Triangle.

Factbit: In February 2016, Luna, a 1½-year-old, blue-eyed German shepherd/husky mix, disappeared from the deck of a fishing boat two miles off the coast of San Clemente Island. Five weeks later, U.S. Navy crew members driving along the island's main drag spotted Luna sitting by the side of the roadway, looking none the worse for wear. Rescuers determined that the dog had apparently fallen overboard and then swam to the island, where she survived on her own by eating small rodents.

Along with mayhem and magic, intrigue also stokes Triangle mystery.

Factbit: In Feb. 2011, two separate Southern California dive teams [dove a "mystery wreck"](#) in 300 feet of water just off the San Clemente Island's Lost Point area. The divers originally thought the wreck was a World War II submarine, but changed their minds after determining that the thing had no torpedo tubes, no propellers, no rudder and no conning tower. The "hot" wreck turned out to be a sunken relic from the U.S. government's 1955 "[Operation Wigwam](#)" ... history's first [deep underwater nuclear explosion](#) (a 30 kiloton device) touched off (following trials near San Clemente Island) by the Navy a mere 500 miles out in the Pacific. Named "Squaw-29," the compact Wigwam target unit once thought to be lost to history has now reappeared in the Triangle, and no one who should know (U.S. Navy, local wreck divers, etc.) could tell me what the thing is doing out there on the Triangle seafloor.

Then there's all that hyper-insistent hyper-danger stalking the Triangle, where threats get wet, the ground shakes and our very survival requires that we understand what's really happening right beneath our feet.

Factbit: In a [study](#) published in May 2015 in the American Geophysical Union's (AGU) *Journal of Geophysical Research: Earth Surface*, researchers described the area as "a little known, fault-riddled undersea landscape off of Southern California and northern Baja, California" – and wrote that it had the capability of producing magnitude 7.9 to 8.0 earthquakes, which could generate tsunami waves that would batter the SoCal coast.

Ouch.

Factbit: Nearly twenty million U.S. residents live in this region. Another 3.5 million Mexican residents inhabit the Bight's San Diego/Tijuana border area, as well.

Accidents & Fluky Fatal Fate

The vast presence of the U.S. Navy in the SoCal coastal waters guarantees that the service will be a predictable source of Triangle misfortune for sailors. The Navy regularly attracts the Grim Reaper to the Triangle to carry away vulnerable military personnel too often exposed to the place's unforgiving uncertainties.

Factbit: Way back in 1924, an explosion aboard the big American battleship Mississippi – engaged at the time in mock warfare maneuvers off San Clemente Island – killed 44 sailors. Dozens more were injured. The bodies were still being pulled out of the ship when another explosion killed four members of the rescue squad.

Factbit: On Oct. 17, 1944, the U.S. Navy blimp K-111 crashed on Catalina Island, killing six of 10 crewmen.

Factbit: In 1969, the U.S. Navy's SEALAB III experimental underwater habitat began leaking during tests off San Clemente Island. Divers were sent to repair it, but aquanaut Berry L. Cannon died as a result of equipment failure and hypothermia. The SEALAB program – developed by the Navy in the 1960s to prove the viability of saturation diving and humans living in isolation for extended periods of time – died with him.

Factbit: In 2009, a U.S. Coast Guard Lockheed C-130H Hercules aircraft collided in mid-air with a U.S. Marine Corps Bell AH-1W Super Cobra helicopter 15 miles east of San Clemente Island. The Hercules, on a mission to search for a missing rower, carried a crew of seven. The Cobra, on a training flight, carried a crew of two. Eyewitnesses reported seeing a fireball in the sky, but no survivors were found in the water.

Fatal Subtraction

On the U.S. west coast, continents collide, myths and legends come and go, you can shiver even in a warm breeze out at land's end, and people drown without a sound.

Factbit: John Weldon Tull, 60, of Boise, Idaho, vanished while body surfing at Salt Creek Beach in 2014. According to authorities, the avid swimmer was at the beach with family and friends when he disappeared under a wave during red flag conditions with four-to-six-foot high waves and strong currents. The Triangle can draw its dark powers from anywhere in the Pacific, and the waters that took Tull were churned up by Hurricane Lowell blowing some 850 miles to the south at the tip of Baja California. An intensive search for Tull continued for 30 hours following his disappearance. For weeks the U.S. Coast Guard undertook random searches for the missing swimmer, but never recovered his body.

The whirring purring Catalina Triangle, which only reluctantly gives up its truths, occasionally gives back its dead.

Factbit: Lee Racicot, a 59-year-old civilian U.S. Navy employee working on Navy-owned San Clemente Island, didn't return from an evening fishing alone on Oct. 7, 2014. Racicot was believed to have gone diving or snorkeling that night, but he didn't show up to work the next day, reported the San Diego Union-Tribune last year. A search by the Navy and Coast Guard was unsuccessful. Eight months later, on Sunday, June 13, 2015, a recreational diver spotted a man's body off the San Clemente Island's coast about 100 feet below the surface on the ocean floor. After Los Angeles County sheriff's divers pulled the body from the ocean, investigators identified the victim as Racicot, who was determined to have drowned.

Sometimes the Triangle drowns someone and leaves a witness behind to tell the tale, remind us of the harsh reality of the place and the consequences of carelessness.

Factbit: On Aug. 4, 2015, Tan Hoang Vu, 43, of Garden Grove, disappeared into the Triangle after falling off an 18-foot Boston Whaler power sport-fishing boat ("...a reputation for reliability and cutting-edge design...") about a mile off the Dana Point neighborhood of Monarch Beach. According to OC Sheriff's Department officials, a mechanical failure on the boat caused the vessel to abruptly turn in the water, sending Tan and Hieu Dang, 39, also of Garden Grove, into the ocean at 9 a.m. At 10:30 a.m., Sheriff's Harbor Patrol deputies were alerted to a boat traveling "in tight circles, approximately two miles off the coast of Dana Point," according to a

statement. Finding no one aboard the "ghost" boat, deputies, with the help of the U.S. Coast Guard and state lifeguards, began searching the nearby waters. Around 12:10 p.m. they found Dang, who was wearing a life jacket but was "exhausted and barely afloat." After a fruitless daylong search for the missing Tan Hoang Vu, authorities called off the search. The agencies resumed search efforts, but never found Vu's body. The 6-foot, 250-pound man, last seen clad in a white T-shirt and blue jeans, was not wearing a life jacket when he vanished into the sea.

Natalie Wood / Phil Hartman / Ned Doheny

The Catalina Triangle features faults and fractures and flux and flows engulfed by mystery and malevolence, violence and vengeance, weirdness and wonder, legend and lore.

The Triangle might just be an astral passage point for star-crossed celebrity souls.

Actress Natalie Wood, 43, disappeared inexplicably off the yacht "Splendour" near Catalina Island late on the night of Nov. 28, 1981. Authorities discovered Wood's body at 8 a.m. Nov. 29 one mile away from the boat not far from a small inflatable dinghy beached nearby. No charges in Woods' death have ever been brought against Wood's husband Robert Wagner, who (along with actor Christopher Walken) was also aboard the boat. In 2014, the owner of "Splendour" (not Wagner) claimed the boat was haunted by the late actress's "ghost." Critics contended that the man was just drumming up attention in an attempt to sell the infamous craft.

Wood died just off Catalina Island, but lies buried in L.A. In 1998, comedian Phil Hartman, 49, died in L.A. but R.I.P.s in Catalina's Emerald Bay, where friends and family scattered his remains along with those of Brynn Hartman, the actor's drug-addled, homicidal third wife who put three slugs from Hartman's own Smith & Wesson .38 Special point blank into the sleeping man, one in the face ... but Hartman was already dead by then.

A couple of years ago as I stood in a San Clemente grocery store checkout line, a copy of the *National Enquirer* caught my eye. A young and lovely Natalie Wood smiled out at me in vibrant color from the cover, which showed an insert pic of an older, frowning Robert Wagner. Blared the bold headline: "Natalie Wood Sister Wants RJ Charged with Murder."

Wood might be resting in eternal peace in L.A.'s Westwood Memorial Park, but to this day the Catalina Triangle continues to haunt Wagner.

Famous people don't have to disappear bodily into the Triangle for it to lay claim to them.

Factbit: On Feb. 16, 1929, Capistrano Beach developer Edward "Ned" Doheny, Jr., 35, son of oil tycoon Edward L. Doheny, *père* namesake and eponymous benefactor of world-famous Doheny State Beach (as well as indicted bagman in dad's notorious 1920s Teapot Dome oil lease D.C. bribery scandal), died along with his male secretary at the Doheny family residence in Beverly Hills, shot with his own gun in an unsolved crime for which murder-suicide still stands as the official ruling.

Some stories, though they didn't actually take place in the Triangle, get Triangle dishonorable mention here simply due to a local connection and the over-the-top fucked up villainy on display.

Factbit: On May 26, 2016, former Camp Pendleton Marine and San Diego resident Brian Brimager, 35, was sentenced to 26 years in prison for the November 2011 machete murder and dismemberment of Dana Point resident Yvonne Baldelli, 42. The couple had been staying on a Panamanian island for two months when Brimager stabbed Baldelli, hacked up her body and ...

too lazy or stupid or both to bother with a burial ... disposed of the remains in a backpack tossed away in the jungle. Prosecutors said that after killing Baldelli, Brimager withdrew money from her bank account and sent emails on her laptop to make friends and family members think she was alive and traveling. In 2013, a Panamanian citizen found the backpack with Baldelli's skeletal remains inside, which led to Brimager's arrest, trial, conviction and imprisonment.

It's the SoCal-bounded flavor of stories about Triangle life and death here that I find most compelling because odd harsh and disjointed caprice ... along with all the wonderment ... pours forth from the Triangle in unrelenting superabundance. Blank spots abound aplenty in our slim knowledge of the Triangle, where even things that we DO know can still mystify us.

Factbit: The region surrounding the Catalina and San Clemente islands is a paradox of the natural world. Giant kelp forest ecosystems around large underwater knolls, along the coast and affixed to the islands help sustain habitats for diverse local and migrating sea life species that flourish in the fecund Catalina Triangle, combining one of Earth's richest oceanic marine life habitats with a deep, dangerous (even deadly), fault-riddled, earthquake-active seafloor.

Mother Earth spins 'round embraced by Father Time as infinite reachback ties ages and eras to the texture of tides and time.

Factbit: Dana Point lies at the northern tip of the Oceanside-Capistrano basin, a 1,500-square-mile stretch of seabed extending south to La Jolla that the U.S. Interior Dept.'s Bureau of Ocean Energy Management, Regulation and Enforcement estimates might contain as much as a billion barrels of oil and a trillion cubic feet of natural gas.

Triangulation

"It's a triangle."

Larry Culbertson of the San Clemente Historical Society made this declaration rather matter-of-factly during a phone conversation. Culbertson shared with me his revelatory insight regarding the waters off the Orange County coast. I've lived in San Clemente, Dana Point's immediate neighbor to the south, for more than 25 years now and I enjoy writing about the area. I called Culbertson to get his thoughts on the mysterious, shadowy San Clemente Island I regularly see veiled in mist on the southwestern horizon. Only at those rare times when winter storms, Santa Ana winds or stiff ocean breezes blow away the marine layer does the island show its flat, dark shape through the haze.

With his "triangle" comment, Culbertson managed to leapfrog my initial focus.

"San Clemente Island, Catalina Island and Dana Point form a triangle," Culbertson told me. "You know, like the Bermuda Triangle."

Okay, the notorious Bermuda Triangle – that world-famous patch of Atlantic Ocean off the Florida coast, bounded by Bermuda and Puerto Rico, in which numerous ships and aircraft have mysteriously disappeared.

And now Southern California has its own mysterious triangular ocean zone (500 times smaller than the Bermuda Triangle, though no less potent), with Dana Point and the twin islands serving as the vertices.

Dana Point—Catalina Island—San Clemente Island = What?

I call it the “Catalina Triangle” in honor of my honeymoon on Catalina Island and because Catalina is the most familiar, dominant name in the area.

Forget about “Capistrano” ... you will understand why when you read (below) the ultra-nasty history of that name and the man behind it (a Middle Ages proto-Nazi).

I started googling and quickly found bits of interesting Triangle details:

Dana Point has its protected pocket mouse and gnatcatcher, real pirates, “Endless Summer,” The Surfaris’ “Surfer Joe.”

Catalina Island has the Chicago Cubs, submarine UFOs, celebrity ghosts.

San Clemente Island has, along with its dummy nuke sub, the protected loggerhead shrike and a Navy SEALs fake city.

In addition to pollution that pours into it from the shore and islands, Triangle water has silent seaquakes, foretold tsunamis, crunched fault breaks, etc., along with nutrient-rich ocean seamount oases named Lasuen Knoll, Avalon Knoll, Crespi Knoll, Emery Knoll Crater and Catalina Crater.

With this in mind, I began my meatspace search starting with the cops.

Seeking the Triangle

I knocked on the door at the Dana Point Harbor Patrol office in my initial quest for some official input about the possible existence of a local “Triangle.” The sheriff’s deputies inside were very polite but I might as well have been a baboon pointing at bananas for all they knew (or cared) about a “mystery Triangle” in their domain.

So I contacted the U.S. Coast Guard’s Station Los Angeles Long Beach Command Center in San Pedro, one of the busiest USCG stations on the west coast. I got sent back and forth among a series of enthusiastic young petty officers who told me that the Coast Guard sees it all in the SoCal ocean region ... search and rescue in plane crashes, ship wrecks, drownings and other tragedies ... but they’ve never (officially, anyway) patterned any of it as a “triangle.”

With the Navy SEALs Motto “The only easy day was yesterday” in mind, I contacted the Navy. More precisely, Navy Public Affairs - Navy Region Southwest based out of Naval Base Coronado in San Diego. I decided to keep my line of inquiry focused on [Operation Wigwam](#) and the 30 kiloton nuke. Spokesman Commander Brad Fagan declined to comment about a possible “Triangle,” but he did tell me a bit about Operation Wigwam, specifically that “There were no fatalities associated with Operation Wigwam.”

When I asked him about the mysterious target unit found near San Clemente Island, he emailed me that “SQUAW-13 went down in water more than 7,500 feet deep.”

It was only later that I received confirmation that the Triangle wreck is Squaw-29. In June 1958, the sole Wigwam mini-simulsub survivor was nuked again in Operation Hardtack I, a series of

nuclear tests conducted by the U.S. in the Marshall Islands. Nearly two decades later, in the mid-'70s, Squaw-29 disappears from the official record.

"It was actually Squaw-29 that was discovered at SCI," amateur maritime historian and shipwreck researcher Gary Fabian told me. "I did a lot of digging to try and determine how the Squaw ended up at SCI, but I was unable to find a specific reference. This part of the story is still a mystery. I'm sure it's probably noted in a Navy deck log somewhere."

I asked Fabian if the Squaw might still be radioactive.

"It's possible," he said. "In fact, when we first saw the diver video of the wreck the hull was pretty devoid of marine life, so maybe it still is. If you happen to figure out exactly how it ended up at SCI, please let us know."

Dana > Catalina < Clemente

"Down in Doheny where the surfers all go there's a big, bleached blondie named Surfer Joe..."
— The Surfaris / "Surfer Joe" (May 1963)

The Catalina Triangle comes ashore on wind and wave and tide at the City of Dana Point, a small OC coastal surfing, sunbathing, boating and water sports mecca that each year attracts a million visitors to its beautiful beaches.

Factbit: On May 21, 2012, 180 bales of marijuana valued by officials at more than \$4 million were recovered after being seen floating in the ocean near Dana Point Harbor. The investigation into how the bales made it into the ocean remains ongoing.

From its mainland vertex at Dana Point, the Triangle stretches out some 42 miles to the northern tip of **Catalina Island**, a rocky, 76-square-mile (22 miles long and eight miles across at its greatest width) tourist getaway, UFO hotbed and reputed paranormal "portal."

"Twenty-six miles across the sea, Santa Catalina is a-waitin' for me. Santa Catalina, the island of romance, romance, romance..." — The Four Preps / "26 Miles (Santa Catalina)" (1957)

Factbit: Santa Catalina Island was successfully developed into a tourist destination beginning in the 1920s by Chicago chewing gum magnate William Wrigley, Jr. who owned controlling interest in the Santa Catalina Island Company. Wrigley invested millions in needed infrastructure and attractions to the island, including the construction of the Catalina Casino which opened on May 29, 1929 (the ghost of writer Zane Grey ... d. 1939 ... would later be spotted there). Wrigley also sought to bring publicity to the island through events and spectacles. He owned the Chicago Cubs and, starting in 1921, used the island for the team's spring training. The Cubs continued to use the island for spring training, except the war years 1942-1945, until 1951. So, it's not the supposed "Billy Goat Curse" of 1945 that really haunts Cubs fans. The team's perennial inability to contest for a World Series championship (last won in 1908) can be directly traced to its thirty-year presence in the Catalina Triangle. Ok, maybe it IS the billy goat, but I know for certain I'm the very first impartial, disinterested observer to ever speculate on this west coast Triangle connection to Cubbies fecklessness through the decades.

Thirty-four miles southwest of Catalina (and 60 miles from Dana Point), **San Clemente Island** — the flat, rugged, narrow and windswept 57-square-mile (21 miles long and two to four miles wide) training hub of the U.S. Navy's entire Pacific Fleet — rises out of the ocean like a rocky

shipwreck to make up the Triangle's third corner. The City of San Clemente, located 62 miles away on the coast, was named after the island at the city's founding in 1925.

"I see San Clemente this winter lying in all its amethystine (violet quartz gemstone) beauty, like an Indian arrow-head, tipped with shining stretches of sand, enshrined by the white arms of the sea." – Blanche Trask, naturalist and writer, 1904

I love neighborly Catalina, so big in the ocean, for day trips to Avalon, camping at Two Harbors ... I even honeymooned there.

But San Clemente Island casts a different, more exotic spell ... it sits way out there mostly shrouded in ocean mist and marine layer, visible only when the air clears. Even then it remains elusive, inaccessible (you literally cannot land there) ... dark and distant, a single long, low-slung ridge in profile, isolated, solitary, forlorn, maybe even stranded, brooding.

Factbit: San Clemente gets its name from Spanish explorer Sebastián Vizcaíno, who spotted the island on November 23, 1602, the feast day of Saint Clement, an early Catholic pope. According to tradition (foreshadowing Triangle ferocity), Clement was imprisoned under the Emperor Trajan, who had the priest tied to an anchor and thrown into the sea. The City of San Clemente, located 62 miles away on the mainland, was named after the island in 1925.

I wanted to take a boat ride out to San Clemente Island to get a closer look, but I wasn't about to pay \$1,000 for a charter. No offers down at Dana Harbor. Not that it would have mattered because all I could have done was sail around the off-limits island. The U.S. Navy owns SCI and civilians have no permission to come aboard. But a Google Earth search of "San Clemente Island" gave me ample, close-up recon of the place while a YouTube video safely [landed me at the island airport](#).

Factbit: The world war now raging (in some places) has impacted San Clemente Island ... the training grounds host a fake city for Marines and Navy SEALs to practice simulated urban warfare. In 2008, the U.S. Dept. of Defense began erecting on the island's northern tip a specialized and elaborate [U.S. Military Operations in Urban Terrain \(MOUT\) training facility](#). Even the Navy SEALs who took out Osama bin Laden in 2011 trained at SCI's MOUT complex. The sprawling, custom-built, \$21 million concrete simulacrum of a city has a large embassy, a six-story hotel-like structure, a city hall, central square, police station (complete with a jail), a bazaar-like market, school, church/mosque, motor-pool and all the other features of a major town in a third-world country (no mention of brothels). The heavy-duty structures allow for explosives to be detonated inside them with minimal resulting damage. The MOUT facility also has a nearby rural (but non-reinforced) village like those found in Afghanistan. Dweller-less dwellings built for destructive non-destruction. A local place without people haunted by distant peoples dead or displaced.

Triangle Gets Personal

Burial at Sea

I can definitely acknowledge that the Catalina Triangle has taken notice of ME, and don't know if it's due to my snooping around and asking a lot of questions about the place.

I know of the Triangle's attention because ... ever the intriguing and innovating and downright compelling pit of death ... the place/space now apparently does direct mail marketing to future prospects.

I'm on a mailing list for the Trident Society, a California cremation services provider that regularly sends me printed inquiries about my "pre-need cremation plans."

Through the society I've come to learn that "Burial At Sea" ... also known as scattering of cremated remains or ashes ... is "often the best option for interment for many families seeking a dignified resting place for departed loved ones."

And what resting place could be more dignified than the Catalina Triangle?

Other burial-at-sea service providers include the Angel's Ashes, Long Beach, and Davey's Locker, Newport Beach. Dana Wharf Sportfishing & Whale Watching, located in Dana Point Harbor, has been providing burials-at-sea for more than 30 years. I suppose their location in the Triangle itself makes Dana Wharf the most sensible service provider to, should I so desire, scatter my cremains out in the ocean.

Each of these companies provides families with a "certificate" of the coordinates precisely identifying just where the ashes were scattered, should anyone wish to make a future visit out onto the ocean waters.

For me, that would be 33.3428°N, 118.3282°W, baby ... a little bit southeast of Avalon Bay in the heart of the Catalina Triangle.

She seeks me, at sea, you see.

And I know that I must eventually go to Catalina in the Triangle.

I generally think of the Catalina Triangle in feminine terms (bitch wants you, she gets you, etc.), and not just because of the pudendal v-shape of the space or the name "Catalina" (Spanish for Catherine of Alexandria). I suppose it's because the more I learn about her, the less I seem to know. The Catalina Triangle has been sitting sight unseen right in front of my eyes for 25 years and I never even suspected she was there. Eventually, though, she did choose to open my eyes to her truth: she will NEVER stop harvesting humanity.

Factbit: On May 28, 2016, student pilot Edmond Haronian, 50, of Woodland Hills, and his flight instructor, Jason Glazier, 52, of Encino, went missing when their single-engine Cessna 172 disappeared over the coast of Catalina Island during the Memorial Day weekend and never landed at Van Nuys Airport, the men's intended destination, according to the Federal Aviation Administration (FAA). The U.S. Coast Guard suspended its search for the missing plane late Monday, May 30, after 16 hours, saying "no signs of any aircraft or anyone in distress" were found. Just hours before the two men disappeared, a smiling Haronian posted several photographs on Facebook showing him with the aircraft. Haronian had exchanged a few text messages the day he disappeared, but had not been heard from since then, his brother reported. Family members offered a reward for help in finding the missing men. If Haronian is found alive, the reward offered was for \$250,000. If information leads to a body, the reward would be \$150,000. Officials reported being puzzled about the incident. The plane was reported to be in excellent condition. The pilot had 30 years experience but the men did not file a flight plan. There was no distress call and no wreckage has been found.

Until the Catalina Triangle does collect me up, I'll enjoy her show. At various times across the years, this sky over the Triangle has also shown my naked eye double rainbows, descending full moons, a comet, zigzag crack lightning, Fourth fireworks, Tyndall sunbeams, twilight crepuscular rays and myriad mock-mirage green flash sunsets regularly popping off along the horizon from the winter solstice point midway between the islands on up to the hills of the Palos Verdes Peninsula, where the setting sun reverses course at the summer solstice on June 21 and again heads back south to the islands ... to the Triangle.

Oh, and the occasional glowing Venus-with-crescent-moon-and-bright-blue-giant-Spica celestial diamond ring on infinite starry-realm black velvet night. There's those, too.

The Space in Between Out to Sea – Nearshore & Offshore

*“We live on the edge of a body of water
Warmed by the blood of the cold hearted
Slaughter of otter
The flagship of death is an old whaling trawler
It's no wonder the Pacific Ocean is blue ...”*

—“Pacific Ocean Blues” by Dennis Wilson (claimed by the Pacific on Dec. 28, 1983, age 39)

In the Gulf of Catalina off the SoCal coast, the ocean floor continues the rugged California coastal terrain out past Catalina and San Clemente islands. The gulf is part of the underwater California Continental Borderland, an active transform margin characterized by narrow shelves, steep slopes and deep, closed basins separated by shallow banks and islands.

Factbit: Offshore from Dana Point in the, the narrow, shallow (only a few hundred feet deep) continental shelf made of bedrock, sand, bottom sediment, boulders and cobblestone spans just seven miles before it drops off into deeper water, plunging 2,000 feet down steep, eroded basin slopes to the rocky seabed below ... and into a seismic hazard zone of cracked and broken land, of earthquake slippage faults, interconnected complex fault zones and unstable landslide regions.

I try to picture the nearly invisible domain created by extensive seismic fracturing: a deep, rugged underwater seascape of basins, trenches, valleys and troughs running between the foothills, knolls, slopes, cliffs, banks, high ridges, plateaus, seamounts and other protruding features that make up the Triangle’s remarkable seafloor all the way out to and beyond the twin islands I can see jutting above the horizon.

Just seven miles off the Orange County coast a narrow seafloor shelf of bedrock, sand, bottom sediment, boulders and cobblestone falls away 2,000 feet to a deep, rugged terrain of trenches, valleys, plateaus, foothills, slopes and seamounts ... an area known as the Inner Borderland – a belt of sediment-covered basement rocks which runs the length of Southern California between the shore and Santa Catalina and San Clemente islands. What geologists call a “slab window gap,” Inner Borderland belt opened in the wake of the rotating Transverse Ranges and composed of metamorphic basement rocks which rose to fill the slab window.

And sitting at the center – the Catalina Triangle.

Located on the Southern California continental shelf, the offshore Borderland differs from an ordinary continental shelf in that it encompasses large depressions as deep as 7,000 feet below sea level and island peaks as high as 2,500 feet above sea level.

Triangle Islands Geology

I’ve enjoyed gazing out at the islands from shore ever since moving to San Clemente in 1989. Catalina and San Clemente islands far and away fuel most Triangle weirdness. Upthrust volcanic Triangle bookends, these dual oceanic axis points are a rich source of Triangle strangeness.

The two long, narrow, rhomboid-shaped and northwest-trending Southern Channel islands arise from wide submerged shelf-and-slope platforms ... the southern ends of large undersea ridges that extend 100 miles to the north into the Northern Channel islands. Made of primordial rock formations, Catalina and San Clemente islands belong to the Santa Ana Mountain chain and the familiar sister peaks Santiago and Modjeska, popularly known as "Saddleback."

Factbit: Catalina and San Clemente islands were never part of the mainland and only broke the ocean surface just a few million years ago. As such, the islands provide the clearest visual evidence of this area's unrelenting seismic (earthquake) activity.

Catalina and San Clemente islands belong to the Channel Islands of California. Along with distant San Nicolas and tiny Santa Barbara islands, Catalina and San Clemente comprise the Southern Channel islands, evidence of the perfect Catalina Triangle enigma: the four northern Channel islands run east-west but the four southern Channel islands run north-south (technically at a northwest-southeast angle)..

The reason: the northern and southern islands belong to completely separate mountain ranges – the Transverse Ranges around L.A. and the Peninsular Ranges from OC down into Mexico, The ranges are presently caught up in the midst of the major tectonic collision with each other courtesy of the marauding Pacific Plate, the planet's largest tectonic plate currently breaking off huge chunks of North America and driving them in a northwesterly direction.

The twin exposed rocky seamount ridges at the edge of the Catalina Triangle stand out as massive evidence of the ever-chaotic tectonic conditions on the nearby seafloor. The orientation of the islands and their uplift in the last five million years are directly attributable to the plate tectonic forces caused by the Pacific Plate's arrival at the edge of the North American continent, aka the San Andreas Fault – all part of life in the crustal plate transform boundary that Californians call home.

Santa Catalina and San Clemente islands buffer the coast from wind and wave. Were it not for these islands, Huntington Beach ... and not Trestles ... would be the most consistent surf spot in Orange County. The islands block the energy that would otherwise move southwest swells to HB, instead turning this wave energy toward here, toward Salt Creek, Doheny, T-Street, Lower Trestles, San Onofre, Trails and the other beloved surfing beaches.

Catalina

Catalina's a rocky mountainous island sitting 42 miles straight offshore from Dana Point. Catalina is 22 miles long and eight miles across at its greatest width. The highest point on the island is 2,097-foot Mt. Orizaba. The island sits on an undersea platform that rises from the 3,750-foot-deep Catalina Basin.

Catalina Island is the rugged, rocky, exposed, 22-mile-long crest of an undersea ridge that extends northward 63 miles to Santa Cruz Island, the largest of the northern Channel Islands near Santa Barbara. The 50-mile long, 30–408 left bend in the San Diego Trough–Catalina fault zone creates a large pop-up structure that emerges to form Santa Catalina Island.

Catalina is bounded on the north by the San Pedro Channel and on the south by the Outer Santa Barbara Passage, which separates it from San Clemente Island 34 miles to its southwest.

Catalina Island was formed by two small plates surrounding it. Until recently, the plates were moving toward each other along a curve in a small fault, causing the land to compress and uplift. Now the plates are moving past each other. The isle is descending at a rate of eight inches every thousand years, and tilting while it falls. If the current sinking rate continues, the island should fall below sea level within three million years.

SCI

San Clemente Island – the southernmost of the eight Channel Islands – is a single flat-topped volcanic ridge siting 60 miles southwest of Dana Point. Twenty-four miles long and four miles across at its greatest width, the island can be regarded as the 2,000-foot exposed tip of a mile high, two-thirds submerged “igneous iceberg.”

San Clemente Island is an uplifted structural block with a steep eastern fault escarpment associated with the submerged San Clemente fault. Geologists have stated that the genesis of San Clemente Island and its surrounding submarine platform is consistent with progressive slip on two, southeast-striking, southwest dipping, blind thrust fault segments.

San Clemente Island can be regarded as the 2,000-foot tip of a two-thirds submerged, mile-high “igneous iceberg,” a seamount that is the emerged portion of a crustal block bounded on the northeast by a large northwestward-trending fault – the San Clemente-San Isidro fault zone, a nearly 200-mile long, continuous zone of deformation that marks the axis of the San Clemente fault system which defines the western edge of the Inner Continental Borderland.

This right-lateral transverse fault that created San Clemente Island is one of many within the Continental Borderland related to crustal deformation associated with the San Andreas Plate Boundary and fault zone system.

Exposure of the San Clemente island block above sea level probably occurred no earlier than the late Pliocene (5.3 to 2.6 million years ago) and, most likely, the early Pleistocene (2.6 million to 11,700 years ago).

The Triangle blends wind and wave, surf and sand, sea and sky, dry land, deep, soggy seafloor and, most importantly to SoCal residents ... *Bight and Borderland*.

Whirling Water Wonderland – Gyre & Eddy

This sodden, occasionally bloody triangle-shaped fish toilet/graveyard – a mile deep in some spots – lies off Orange County’s coast in the Gulf of Santa Catalina at the eastern edge of the Pacific Ocean. The Southern California Bight and Continental Borderland constitute one of the most productive bodies of coastal water on the planet and home to some of the world’s biggest kelp forests.

Catalina and San Clemente islands – two of the four Southern Channel islands along with San Nicolas and Santa Barbara islands – occupy the geographical center of the Bight/Borderland area.

All the major local offshore northwest-trending daughter faults of San Andreas Plate Boundary Fault converge in the Triangle. They cleave the ocean bottom, stretch the crust, uplift ridges, drop basins – stark evidence of the plate tectonics that made our shaky world what it is today

via associated faulting, folding and crustal upwelling that created Southern California and the offshore Borderland that's home to the Triangle.

The fruitfulness of the Bight/Borderland results from energy vortexes produced by powerful wind-driven ocean currents swirling, whirling and twirling (spin) over that fractured, hilly seafloor and among and between the Channel Islands and the shore. The basic pattern of water movement in the Bight/Borderland is the oceanic **Southern California Gyre**, a ringlike rotating oceanic eddy system of ocean currents centered over Catalina and San Clemente islands.

Interacting cold and warm ocean currents and countercurrents come in toward SoCal from north, west and south, meeting to surge through the Bight/Borderland waters. The island-shore land constraints get the always moving sea whirling in a gyre – the swift, counterclockwise circular motion around the bowl of the Bight.

Unlike most of coastal California, which faces due west and the open ocean, the coastal waters of the Bight/Borderland region break on a south-facing coast and so get caught between land masses – the SoCal shore and the Channel Islands. Its topography, weather patterns and ocean currents make the Bight/Borderland a meeting place of the cool northern California Current and warm Southern California Countercurrent.

This convergence of warm and cold in the Bight/Borderland produces a lush, vibrant “transition zone” ecosystem like none other on the planet.

Plate-Cracked Seafloor

In the Bight/Borderland area, the familiar mainland mountains, hills and valleys become offshore islands, knolls and basins on a complex ocean floor unique to our planet.

Long-term movement along the San Andreas Plate Boundary/Fault line has deformed the seafloor with several large, active fault systems continually building up seismic stress and capable of rupturing catastrophically.

Like coastal SoCal, the Borderland was once part of the North American continent. But now it rides with us drylanders on the Pacific Plate, the mega tectonic plate taking everything from the tip of Baja up to San Francisco ... and inland to the Salton Sea ... toward Alaska at the speed fingernails grow, one earthquake at a time.

The four southern Channel islands – Santa Catalina, San Clemente, San Nicolas and Santa Barbara – are part of the Peninsular Ranges, a group of northwest-southwest-oriented mountain ranges that include the Santa Ana Mountains and that stretch a thousand miles from Southern California to the southern tip of Mexico's Baja California Peninsula.

Seafloor Geology

Triangle strangeness goes deep in the Borderland. Hidden away far beneath the Triangle's glittering ocean surface, a splendid natural rocky wonderland lies in the darkness ... a seabed with subterranean faulted basins and steep ridges converging around the islands to meet in the Triangle's center at 1,000-foot sea knolls (Lasuen Knoll, Avalon Knoll, Crespi Knoll) and immense craters (Emery Knoll Crater, Catalina Crater) famous among fishermen for their rich fields and abundant yields, but puzzling to geologists for their uncertain origins.

Factbit: The Catalina Triangle occupies the center point of the **California Inner Continental Borderland (ICB)**, the SoCal offshore region that's the space left behind when the Pacific plate torqued the Transverse Ranges crustal block sideways up into the coastal mountains of Northern California above Santa Barbara County. The ICB covers 230 miles from Santa Barbara to Mexico and 60 miles from the coast out to San Clemente Island ... nearly 14,000 square miles in total. In the wake of the rotating Transverse Ranges block, a slab window opened along what is now the SoCal coast as the Pacific plate pulled the outer Continental Borderlands and the southern end of the Transverse Ranges away from North America. This stretched the crust and the slab gap filled in from below with grainy, layered, hardened crystalline metamorphic schists comprised of sedimentary and igneous (cooled molten lava) volcanic rocks. Within the ICB is the Inner Continental Borderland Rift, an inferred regionally extensive metamorphic core complex of the Catalina terrane (rock formation area). This 56-mile-wide zone of faults relieves stress and accommodates motion between the Pacific and North American plates. The Rift tracks the San Clemente fault zone along the front of San Clemente Island. Emery Knoll Crater, Catalina Crater and Navy Crater to the south are located along its northwest-trending axis. Tectonic stress is accumulating in the complicated ICB region where faults are active and may be capable of generating earthquakes of ML 6.0.

Factbit: About five million years ago, the Pacific Plate captured Baja California, tearing Baja and the Peninsular Ranges away from Mexico, transporting them northwestward and jamming the north-south-oriented Santa Ana and San Jacinto mountains into the east-west Transverse Ranges, thus separating along the San Andreas plate boundary the San Gabriel and San Bernardino mountains at Cajon Pass and the Tehachapis at Tejon Pass. The San Bernardinos stayed with North America, but the San Gabriels and Santa Monicas now ride the Pacific Plate northward along with us, Saddleback and the islands of the Catalina Triangle.

Off the coast of what is now Orange County in the Triangle, plate tectonics and the impact of the colliding Transverse and Peninsular mountain ranges produced nearly vertical fault planes that broke the offshore area into numerous crustal blocks. Geologists use terms like hanging-wall blocks, horsts and half grabens to describe the ICB seascape. Two of these blocks gave rise to the Peninsular Ranges ridges we call Catalina and San Clemente islands – parallel seaward extensions of the Santa Ana Mountains and Saddleback.

All trending northwest

Triangle Underworld Revealed

The region surrounding the Catalina Triangle is a paradox of the natural world, combining one of Earth's richest oceanic marine life habitats with a deep, dangerous, fault-riddled, earthquake-active seafloor. (OCW11 p. 30)

In the Gulf of Catalina off the SoCal coast, the ocean floor continues the rugged California coastal terrain out past Catalina and San Clemente islands. The gulf is part of the underwater Continental Borderland, an active transform margin characterized by narrow shelves, steep slopes and deep, closed basins separated by shallow banks and islands.

Factbit: Offshore from Dana Point in the, the narrow, shallow (only a few hundred feet deep) continental shelf made of bedrock, sand, bottom sediment, boulders and cobblestone spans just seven miles before it drops off into deeper water, plunging 2,000 feet down steep, eroded basin

slopes to the rocky seabed below ... and into a seismic hazard zone of cracked and broken land, of earthquake slippage faults, interconnected complex fault zones and unstable landslide regions.

Hidden away far beneath the Triangle's glittering ocean surface, a splendid natural rocky wonderland lies in the darkness ... a seabed with steep, faulted subterranean ridges and basins. The major fault zones of the Bight/Borderland converge in the Triangle through basin fault zones – the Catalina Basin between Santa Catalina and San Clemente Islands, the San Pedro Basin between Catalina Island and the shore, the Gulf of Catalina basin off the OC-San Diego coast, and the San Diego Trough between San Clemente Island and the shore.

The basin fault zones converging around the islands to meet in the Triangle's center at 1,000+-foot seamounts – **Lasuen Knoll**, **Avalon Knoll**, **Crespi Knoll** – and the immense Emery Knoll Crater and Catalina Crater, puzzling to geologists for their uncertain origins but famous among fishermen for their rich kelp fields and abundant fish yields.

Often referred to as ocean oases, these knolls – which range in height from between 1,500-3,000 feet – provide important aquatic habitat for benthic (sea bottom) invertebrates, deep-sea fish, and marine predators.

Lasuen Knoll and **Avalon Knoll** pop up at the southern end of the San Pedro Basin between Dana Point and Catalina Island, and **Crespi Knoll**, Catalina Crater, Navy Crater and Emery Knoll sit between Dana Point and San Clemente Island.

Avalon Knoll (named after the town of Avalon on Catalina Island), sits on the seafloor just a few miles east of Catalina. The knoll, which rises more than 1,312 feet above the San Pedro Basin seafloor, separates Catalina Basin from San Pedro Basin to the north.

Lasuen Knoll, named for its discoverer and the inventor of kite fishing, hunkers directly in front of the Devil's Roost, 14 miles offshore. Lasuen, which separates Catalina Basin from the eastern Gulf of Santa Catalina, is a huge, round topped undersea bedrock mountain standing in a deep flat plain from which it rises to a height of 1,300 feet, reaching less than 500 feet below the surface. Lasuen Knoll, renowned as a rich fishing habitat, is considered to be the Orange County coast's premier rock cod bank. The rocky reef at the knoll's bottom attracts many kelp forest bottom dwellers. Ocean currents passing over the knoll create upwellings when deeper, nutrient-laden water is drawn upward on the upcurrent side of the knoll, while surface water is pulled downward on the lee side. While fishing is decent on top of the knoll, fishing the many cuts and canyons along the sides in 600-900 feet of water is most productive.

Crespi Knoll, an underwater geographical landform and one of the best fishing and outdoors adventure locations in the Americas and Western Europe, is located 25 miles off the coast from the city of San Clemente in the eastern Gulf of Santa Catalina. The knoll is named for Fr. Juan Crespi, a Franciscan friar who accompanied the 1769–1770 Portola Expedition, the first recorded Spanish (or any European) land entry and exploration of the present-day state of California, which led to the founding of Alta California. Because Crespi was the only one of the Franciscans on the trek to make the entire journey by land, he became the first official diarist for the missions. The Newport Canyon-Channel fault system, the longest in the Borderland, begins near the shore at the north end of Newport Harbor and ends at the north side of Crespi Knoll, where it turns south along the west side of the knoll, crossing the southeast quadrant of the western Gulf of Santa Catalina, and enters San Diego Trough

Emery Knoll is the highest point on Mackerel Bank, a formation in the Gulf of Catalina that sits just offshore and to the east of San Clemente Island. The base of this hump sits in more than 3,600 feet of water. Emery Knoll's top reaches 1,920 feet below the surface, and the area around this knoll is well known for holding bait fish and bluefin tuna. Emery Knoll is named after Kenneth Orris "K.O." Emery, a marine geologist and prolific author whose books included "The Sea Off Southern California," still a primary reference for the region and a model of a complete oceanographic study.

The history of the mystery in the Catalina Triangle consists of innumerable, well-documented true tales told over many years about real people and actual events as described in the primary information sources – e.g., personal interviews, civilian and military histories, official reports and reliable records from news outlets, libraries and (yes) the Web. I looked at as much as I could find in order to distinguish Triangle-related fact from fiction. Many stories poured forth from Google searches, which I then counter-checked for independent corroboration. After all, the Internet doesn't lie to people, people lie to people.

Dana Point

*"Down in Doheny where the surfers all go
There's a big, bleached blondie named Surfer Joe..."*

— The Surfaris / "Surfer Joe" (May 1963)

"Surfer Joe" and "Wipe Out" were the A-side and B-side of a Sufaris 45 rpm single.

A look around Dana Point from *Cotarro del Diablo* provides a good view of some pretty neat Triangle stuff like tall two-masted sailing ships, sailboat and yacht regattas, migrating whales, stampeding dolphins, waddling harbor SEALs, barking sea lions, diving sea birds, noisy civilian and military planes and helicopters ... and every Fourth of July the best barge-based fireworks display on the entire west coast.

Off to my left, houses cling to the high crumbling cliffs above Dana Point Headlands Beach, a sandy shore covered with rocks and boulders and shallow tide pools – another link in the long, unbroken littoral of our shared abode, the Southern California Bight.

Past the boulder fields and bedrock bench tide pool areas to my right sits Salt Creek Beach Park, a wide sandy beach directly below the Ritz-Carlton Laguna Niguel. Offshore here along the rocky reefs lies the largest kelp forest in Orange County.

A Little Kelp for Some Friends

At Salt Creek Beach, a kelp canopy often floats on or near the ocean surface. The large bay has an expansive reef system that supports forests of Giant kelp, sea palm, laminaria, pterygophora and bull kelp, sustaining barred sand bass, opaleye, pile perch, rock wrasse, rainbow perch, Blacksmith, jacksmelt, juvenile seniorita and the multitudes of birds and mammals that feed on them.

Meme with a View

Dana Headlands provides a choice observation post with an excellent 360-degree view of the entire south OC coastal area – hills and mountains to the east, world class shoreline, surf breaks and luxury homes and hotels north and south, and a spectacular marina with a thousand slips for expensive pleasure craft – sleek and slender sailboats and sturdy, stately yachts with clever names like "Gail Force," "Comfort Zone," "About Time." Fun craft or working boat, the harbor serves up a steady stream of people trouble in Triangle waters.

Factbit: The Dana Headlands get their height from an earthquake fault line that runs right through Dana Point Harbor. The fault has created a steep (50 to 70 degrees) break between the harder metamorphic sedimentary breccias that forms the headland and the weaker fossiliferous siltstone that makes up the inner margin of the harbor. Wind and wave batter away relentlessly at this rough line between hard soil and soft rock pushed up by seismic forces, in the process endlessly degrading and disintegrating the Headlands into the all-absorbing *mass of water* called Southern California's Catalina Triangle.

The City of Dana Point has covered the Headlands Park with a range of native plant communities, and the herby, aromatic tang of coastal scrub and chaparral mixes with the briny scents of saltwater spray and kelp seaweed ... a pungent ocean bouquet brought in on the breeze.

As the Triangle's mainland touchpoint in the littoral zone along the SoCal coast, Dana Point also has a darker side.

Factbit: On Sept. 20, 1987, joggers discovered the dead body of a young woman lying at the foot of the Headlands cliffs below Cove Road and Scenic Drive. Officials dubbed the woman "Dana Point Jane Doe" because there was no identification with the body. Her death was ruled a suicide and the body was eventually cremated and buried at sea in the Triangle. In 2015, Dana Point Jane Doe was finally identified as Holly Jo Glynn, 21, of Whittier, Calif., following a long search for the missing woman by childhood friends that led to blood and DNA testing of Glynn's relatives, the results of which produced a positive ID of Holly Jo Glynn.

A person dying at the beach isn't unusual, but it does show how the Triangle can exert a ferocious, unrelenting pull on visitors to Dana Point. High surf and underwater flows can quickly take unwary waders and swimmers out to sea faster than even a strong Michael Phelps-level Olympian can swim. The Triangle giveth and taketh ...

Factbit: In the summer of 2014, rescues in state parks from Doheny State Beach to San Onofre doubled from 2,500 to 4,400, according to Mark Allen, supervising lifeguard for California State Parks. On one weekend in July, there were 500 rescues at Doheny alone. Lifeguards report that many near drownings result from the effects of a deadly manifestation of the Catalina Triangle – rip currents. These powerful, narrow channels of fast-moving sea water can suddenly and quickly carry waders and swimmers away from the shore at speeds of up to eight feet per second, ample evidence of the Triangle's ever-present and potentially deadly drawing power.

Sometimes the Triangle gets downright nasty. Each year Dana Point Harbor gets fed copious amounts of noxious SoCal detritus known as "the first flush."

Dana UFOs & 'First Flush'

Dana Point's local ocean environs suffer from UFOs (unwelcome *floating* objects). According to the [Orange County Grand Jury 1999-2000 Environmental Report](#), debris consisting of dead animals, animal waste, plant trimmings, tree limbs, lawn cuttings, furniture, plastics of all kinds, food containers and wrappers, toys, construction materials, lumber, pallets, cardboard boxes, and even live rattlesnakes comprise the bulk of what the Grand Jury terms "macro-pollution."

Following the first significant Southland rainstorm, a "first flush" phenomenon occurs in which all of the accumulated debris in the Orange County's creeks, flood control channels and storm drains rushes to the sea. Dana Point Harbor becomes choked with tons of unsightly, unhealthy and hazardous waste. Islands of trash accumulate on the beaches, become waterlogged and sink, or float for weeks until it all washes out to sea into Capistrano Bay ... and into the Triangle.

Killer Dana

Dana Point once boasted a legendary surf break famous up and down the west coast for producing bigger surf than anywhere else in Southern California. Then the famed "Killer Dana" wave got killed ... and one more beautiful thing died in the Triangle.

Dana Point occupies a bight, a curving eastward bend in the coast that was the source of Dana Point's once majestic surge phenomenon colloquially known as Killer Dana, a right-breaking wave located just off the headlands. The prevailing westerly wind coming over the headlands

made for offshore winds all the way to Doheny. Swells that came out of the deep water just offshore and hit this spot produced waves that could be maintained to heights of a dozen feet or more and would break near and on rocks below the cliffs. Surfers could take off on the biggest waves of the day and go screaming down the line all the way to the San Juan Creek river mouth.

Factbit: The Killer Dana wave was destroyed when the Dana Point Harbor was built in 1966. Construction crews built a coffer-dam around the harbor area-to-be and pumped the sea water out, leaving fish flopping and sea birds dive bombing abalone and lobster to dry and die in the sun. Next they used bull-dozers to scrape the natural sea bottom and rock reefs into a smooth basin, then let the sea water back in and built a break wall around it. That breakwater now cuts right through the heart of the rugged natural anchorage and the once epic surf spot known as Killer Dana ... another Catalina Triangle casualty.

Triangle Oozes into the Local

Catalina Triangle haunting freakiness often bleeds into the margins and onto local turf in and around Dana Point.

Factbit: On April 22, 1958, Charles Seyfert, 39, a Tucson, Ariz. carpenter, his son Tommy, 10, and OC Deputy Sheriff Robert L. Shultz, 37, died in a gun battle that erupted in Dana Point on the coast highway near Blue Lantern. Seyfert was traveling with Tommy and his elder son Charles, 14, in a battered old school bus converted for family cruising. Described as a deranged "religious fanatic" by family members, Seyfert was armed with a .22 caliber pistol and Charles with a rifle. Seyfert had threatened to take his children "to the promised land," which prompted his sister-in-law in San Juan Capistrano to contact police. The L.A. Times reported that, after the bus was stopped near Blue Lantern by Deputy Schultz and Deputy Edward C. Johnson, 31, spectators heard Seyfert order his sons: "Shoot anybody who tries to stop the bus. Don't let them take you." Seyfert got off the bus armed with a pistol, but dropped it on shouted orders from Johnson. Seyfert's oldest son Charles then dashed out of the bus, picked up the pistol and fired at the deputies. Johnson fired back, wounding Charles. Ten-year-old Tommy Seyfert then ran out of the bus, picked up the pistol and started firing before Johnson shot him. Seyfert picked up the pistol and started shooting, and Johnson shot him to death. Both officers were wounded and Schultz died on the way to the hospital. According to reports at the time, the sheriff's department said autopsies showed that Seyfert and Tommy were killed by .22 caliber slugs in the head, though the Seyferts were the only ones who had weapons using .22 caliber bullets.

Just north of Dana Point five miles up Del Obispo and San Juan Creek sits the city of San Juan Capistrano, home to the walled-in ruins of the great stone church at the old Mission San Juan Capistrano,

Factbit: In 1769, the SJC mission was founded by Fr. Junípero Serra y Ferrer, an only just recently canonized Roman Catholic saint, a hair-shirt-wearing self-flagellant ... flogger of local natives, hunter (and finder) of witches, sorcerers and devil worshipers. Serra named the place after mid-15th century Hitler Holocaust warm-up act Giovanni da Capistrano, a Franciscan friar, "warrior priest," preacher, crusader, inquisitor, hunter of heretics and "Scourge of the Jews" famous for rampaging through Europe inciting anti-Semitic violence. Capistrano personally oversaw the destruction of entire Jewish communities in Germany and Poland through the arrest, trial, torture and execution (by burning) of community leaders for crimes such as

“desecrating hosts.” Children of the deceased were taken for baptism and surviving Jews were banished.

“Spain came to California with a cross and a sword,” wrote historian Phil Brigandi in his book, *Orange County Chronicles*. “The King of Spain wanted to expand his far-flung empire. The padres wanted to save souls.”

Factbit: In 1812, the first of two significant earthquakes to hit Southern California that year crumbled the Mission church, killing 40 "neophytes" (recent native converts) confined inside. .

Factbit: In 1818, a French pirate named Hipolito Bouchard sailing under an Argentine flag while warring against Spain sailed two ships into the cove at Dana Point, originally called Stillwater Bay and then Capistrano Bay. From there Bouchard climbed to *Cotarro del Diablo* atop the promontory's highest point to plan a raid on Mission San Juan Capistrano. The pirates plundered the Mission, burning buildings that included the headquarters of the Spanish military garrison stationed at the mission. No one was killed, but the pirates drank all the friars' wine..

To the south sits San Clemente where I live, where I learned firsthand about Triangle tragedy.

Factbit: In 2008, my reclusive next door neighbors – dad, mom, grandma and 21-year-old twin daughters, all dressed in black – together committed suicide using Vicodin, sleeping pills, antidepressants and bullets, with mom and dad left lying in pools of blood next to each other in the master bedroom closet. Police reported that, as dad lay unconscious from the overdose, mom shot him in the chest then bit into the gun barrel and fired.

These deaths were unrelated to the tragedy that simultaneously befell the family just two doors up the street – dad (heart attack), teenage son (road accident) and mom (broken heart) all died within weeks of one another.

Further south, San Clemente's scenic hills and sandy beaches roll all the way down to Cotton's Point and former President Richard Nixon's Western White House – La Casa Pacifica – where Brezhnev ogled Jill St. John (I personally saw that pic on a wall there) and Nixon walked on the beach in his black wingtips plotting against his many enemies. The house served as the safe haven where the Trickster retired after his 1974 resignation from the presidency to lick his wounds and begin rewriting history.

San Onofre Nuker

A bit further south at the OC/San Diego counties border sits Camp Pendleton and the now closed and dilapidated (but still highly radioactive, dangerous, deadly and leaky) San Onofre Nuclear Waste Generating Station.

No greater danger to the west coast exists in the Catalina Triangle than the potential tsunamic relationship between San Onofre and Catalina Island, less than 50 miles away.

Factbit: San Onofre stores tons of highly radioactive used uranium fuel on site using a combination of enclosed, steel-lined spent fuel pools and relatively thin sealed stainless steel canisters (which may already be cracking from the corrosive coastal environment) housed in reinforced concrete structures called dry casks. Each of the canisters contains more radiation (Cesium-137) than that released from Chernobyl. Though San Onofre sits within a tsunami zone, the plant's tsunami wall reaches only 14 feet above high tide.

The most likely source of a disastrous tsunami wave hitting San Onofre would be the Catalina Triangle.

Researchers have found evidence on Catalina Island of old landslides along a fault pointing toward the coast. Were such submarine landslides to occur again as a result of seaquakes at Catalina Island – which leans coastward and reportedly sinking into the sea at the rate of one foot per millennium – may pose a tsunami risk for Southern California. Sliding rock and dirt produced by a seaquake could precipitate a large tsunami wave aimed on a direct path to the coast ... to San Onofre.

High ocean wave activity at San Onofre could compromise the safety of the shuttered plant by breaching the protective tsunami wall and inundating the site. Radiation leaks resulting from a severe accident at San Onofre have the potential to create a permanent Chernobyl-like “dead zone” on land beyond Los Angeles, San Diego and Riverside and offshore out to Catalina Island ... in the Triangle.

Factbit: Great white sharks regularly gather in the waters off San Onofre State Beach to feed on grunion, a small, silvery food fish that's a key part of their diet, reports researcher Ralph S. Collier, author of "Shark Attacks of the Twentieth Century: From the Pacific Coast of North America." Collier operates the [Shark Research Committee](#), Chatsworth, Calif., a nonprofit organization that tracks and records shark sightings and attacks along the west coast. According to Collier, experts believe the birthing zone for great whites extends the entire length of the Southern California Bight from Point Conception just north of Santa Barbara down to Baja California. In 2006, a trio of great whites seen regularly near San Onofre was nicknamed Sparky, Fluffy and Archie.

San Nicolas Island

Triangle weirdness also oozes out past the islands deeper into the Pacific. San Nicolas Island, a 23-sq.mi. chunk of volcanic rock protruding above the waterline 105 miles west of Dana Point, is the most remote of California's Channel Islands. San Nicolas has been used since 1957 by the U.S. Navy as a launch pad for research rockets

The Nicoleño Native American tribe inhabited the island until driven off in 1835. As of the 2000 U.S. Census, the island has since remained officially uninhabited, though the census estimates that at least 200 military and civilian personnel live on the island at any given time.

The most famous resident of San Nicolas Island was the "Lone Woman of San Nicolas Island," christened Juana Maria, though her birth name was never known to anyone on the mainland. She was left behind (explanations for this vary) when the rest of the Nicoleños were removed to the mainland. She resided on the island alone for 18 years before she was found in 1853 by Captain George Nidever and his crew and taken to Santa Barbara. She died seven weeks later, her system unprepared for the different nutritional and environmental conditions on the California mainland. Her story was the basis for Scott O'Dell's Newbery Medal-winning 1960 novel *Island of the Blue Dolphins*, and was also the basis for a chapter in Max Miller's 1932 best-selling book *I Cover the Waterfront*.

Most notably, San Nicolas Island was considered as one of among eight possible locations to provide the site for the Trinity nuclear test.

Factbit: On July 16, 1945, the U.S. Army conducted the first detonation of a nuclear weapon in a test at White Sands Proving Ground in the Jornada del Muerto desert about 35 miles southeast of Socorro, New Mexico, on the Alamogordo Bombing and Gunnery Range. The blast, codenamed Trinity, was part of the Manhattan Project, the unofficial designation for the U.S. War Department's secret program, organized in 1942, to explore the isolation of radioactive isotopes and the production of an atomic bomb, used one month later over the cities of Hiroshima and Nagasaki, Japan. Initial research for the project was conducted at Columbia University in Manhattan, hence the name.

Close calls can pass for luck in the Catalina Triangle.

Catalina Island

*"It seems so distant, twenty-six miles away
Restin' in the water serene
I'd work for anyone, even the Navy
Who would float me to my island dream..."*
— "26 Miles (Santa Catalina)" by The Four Preps

I first plowed into the Triangle on my wedding night, newlyweds making the crossing out of Long Beach to Catalina Island for our short weekend honeymoon.

Catalina is the perfect romantic getaway, I'd been told ... "26 Miles across the Sea" song by the Four Preps.

The Triangle, however, knows not of human expectations. The waves knocked hard into the Catalina Express ferry during the one-hour ride to Avalon. Eventually I had to embrace a foul smelling toilet in the crowded ship men's room and surrender my wedding dinner to the demanding Triangle (though at the time I certainly didn't understand this truth).

"Leaving the hustle and bustle of the 'mainland,' Avalon is the perfect place to take a break from the demands of daily life," declares the website of Catalina Express, "leader of marine transportation to Catalina Island." The company's fleet consists of eight high-speed vessels including four catamarans. The largest vessel in operation, the Catalina Jet, has the capacity to carry nearly 500 passengers across the channel. Catalina Express offers up to 30 round trips daily and operates from four different ports.

Yes, the island's weather is mostly great and it's a fun and beautiful place to visit, but...

For the Gabrielino/Tongva people (who called the island Pimu) it was home for at least 10,000 years, until the arrival of the Spanish in 1542; their imported diseases and forced relocations had by the 1830s all but erased the Tongva presence. The Tongva left behind copious archeological evidence of their culture which was exploited by scientists in their pursuit of historical documentation of the island. Over the years, their graves were plundered and their bones bought and sold on the relics market like so much ancient pottery.

One man literally built a museum on the island using their bones.

"Doctor" Ralph Glidden's "Catalina Museum of Island Indians," on a hill overlooking Avalon Harbor, was literally built of Tongva bones. Newspaper articles from that era by publicist Alma Overholt describe it as a "unique and weirdly spectacular institution" with windows edged in toe, ankle, wrist and finger bones, and shoulder-blade cornices. Leg and arm bones served as brackets for shelves lined with skulls. Ceiling panels were decorated with vertebra and rosettes of shoulder blades.

Indian Country Today Media Network, in ["The Sick Obsession of Dr. Glidden & His Museum Built With Sacred Bones"](#) by Dina Gilio-Whitaker 8/1/13

But more problematic were the fortune-hunting grave robbers and none was more well known than the notorious "Dr." Ralph Glidden, a self-proclaimed archeologist who used Tongva bones and other burial excavations in a bizarre museum attraction from 1922 to 1950.

In 1928, Glidden discovered a massive soapstone urn on Catalina that he said contained the skeleton of a young "royal princess" crouched in an upright position with her fingers clenched over the rim. The urn, he told reporters at the time, was surrounded by the skeletons of 64 children buried in tiers four deep, "with each little head touching one another."

About five feet below the children, Glidden said, was the skeleton of a man, 7 feet 8 inches tall, with a spear blade embedded in his left side. Glidden claimed it was evidence of a prehistoric race of giant fair-skinned, blue-eyed Native Americans.

No photographs of his unearthing of those remains are in the discovered boxes. But a 138-pound urn was a major attraction at Glidden's "Catalina Museum of Island Indians."

The museum, on a hill overlooking Avalon Harbor, was literally built of bones. Newspaper articles from that era by publicist Alma Overholt describe it as a "unique and weirdly spectacular institution" with windows edged in toe, ankle, wrist and finger bones, and shoulder-blade cornices. Leg and arm bones served as brackets for shelves lined with skulls. Ceiling panels were decorated with vertebra and rosettes of shoulder blades.

Glidden's museum closed in 1950. He spent the next several years trying to sell his collection to other museums and collectors. In 1962 the Wrigley family, which amassed a fortune from the sale of chewing gum, bought and donated it to the Catalina Island Museum.

UFOs

One evening while at home watching a show about UFOs on the History Channel, I was suddenly confronted by footage of the famous circular art deco Catalina Casino located at the island's Avalon harbor. According to the show's narrator, the area has been for at least thirty years the scene of UFO reports of all kinds.

The show is titled "Hangar 1: The UFO Files," and the source for its information is MUFON (The Mutual UFO Network), a Newport Beach-based non-profit founded in 1969 that investigates cases of alleged UFO sightings. Mission: "The Scientific Study of UFOs for the Benefit of Humanity."

According to UFO researcher and author [Ann Druffel](#), "This body of water lies between the coastlines of Southern California and Santa Catalina Island, 20 miles offshore to the southwest. The area has for years been the scene of UFO reports of all kinds: surface sightings of hazy craft which cruise leisurely in full view of military installations, aerial spheres bobbing in oscillating flight, gigantic cloud-cigars, and at least one report of an underwater UFO with uniformed occupants."

UFOs being good Catalina Triangle mystery stuff, I immediately google Catalina Island UFOs.

Ann Druffel, author of her 1998 book "How to Defend Yourself Against Alien Abduction," shows up at the top of the search page listings. She writes about the Catalina Triangle:

“This body of water lies between the coastlines of Southern California and Santa Catalina Island. The area has for at least thirty years been the scene of UFO reports of all kinds: surface sightings of hazy craft which cruise leisurely in full view of military installations, aerial spheres bobbing in oscillating flight, gigantic cloud-cigars, and at least one report of an underwater UFO with uniformed occupants.”

The fun apparently began in 1955 when, on July 10 at 1:30 p.m., a Washington family of three are sailing 13 miles off the coast of Newport Beach on their way to Catalina Island when they observe a “perfectly round, gray-white” craft about 2,500 feet above their boat. When the object maintains its position over their boat, they radio the Coast Guard, which sends out a plane. The object darts away before the plane arrives.

Plane crashes

Catalina Airport is a privately owned airport located six miles northwest of the central Avalon business district the middle of the island.

Airfarewatchdog.com, part of the Smarter Travel Media Network, has named Catalina one of the “Ten Scariest Airports in the U.S.”

Catalina's tiny airport is a narrow, single landing strip on a remote hilltop with precipitous drop-offs; some pilots compare it to landing on an aircraft carrier.

Catalina Airport isn't for the faint-hearted. Nicknamed “Airport in the Sky” because of its lofty elevation and sheer cliffs, it's known for downdrafts and turbulence on approach. Its sole runway is raised in the middle, so much so that pilots can't see where it ends. Heavy rains can cause it to become littered with pieces of asphalt, potholes, and soft spots, all things you don't want to encounter.

In the from 1999-2009, 20 people died in eight plane crashes coming in or out of Airport in the Sky, including three killed in an an early Feb. 2009 incident. Before that wreck, the most recent crash occurred three months earlier, when three people were killed in a crash off the end of the runway.

San Clemente Island

"I see San Clemente this winter lying in all its amethystine (violet quartz gemstone) beauty, like an Indian arrow-head, tipped with shining stretches of sand, enshrined by the white arms of the sea."

– Blanche Trask, naturalist and writer, 1904

I'm always driving into Dana Point and I've visited Catalina Island numerous times ... I even honeymooned there. But I have not ... and quickly found out that I MAY NOT and CANNOT ... physically visit San Clemente Island because the U.S. Navy doesn't let just any civilian drop in on its personnel who occupy the island. Private persons can sail out and fish around the restricted island, but just not go ashore because the island is essentially a Navy war practice zone.

In the Triangle, terrain is germane.

San Clemente Island, southernmost of the eight California Channel Islands, packs a widely variable landscape into a very small (24 miles long and five miles across at its widest point) space – its six naturally sculpted landscapes include coastal terrace, upland marine terraces, the Plateau, eastern escarpment, major canyons and sand dunes. San Clemente Island Pyramid Head is the distinctive pyramid shaped southern end of the island.

My curiosity about San Clemente Island led Culbertson to refer me to the island's historian Wilfred J. "Bill" Sturgeon for more in-depth information.

In 1999, because of his extensive knowledge of San Clemente Island, Sturgeon was asked by the Natural Resources Office (NRO) at the U.S. Naval Air Station, North Island, to research and write the military history of the island for the period 1934-2000. When I first contacted Sturgeon to discuss San Clemente Island, he was cordial and friendly enough.

Strangely though, after I mentioned [Operation Wigwam](#) to him, Sturgeon never again responded to my emails. Yet another Catalina Triangle disappearance.

U.S. Navy Dominion

Most of the waters of the Bight are designated as "national defense operating areas," established by the federal government for safeguarding classified defense information or protecting Department of Defense (DOD) personnel, equipment and materiel in military facilities like the Camp Pendleton Marine Corps Base between San Clemente and Oceanside and the Naval base and air station in San Diego.

During World War II, all of Southern California's Channel Islands were put under military control, including the civilian-populated Catalina Island where tourism was halted and established residents needed permits to travel to and from the mainland. Today, the U.S. Navy controls San Clemente Island and San Nicolas Island and has installations elsewhere in the chain used as airbases or target areas.

The U.S. Navy ... the world's largest navy ... has been training and operating in the area since purchasing the island in 1934.

On and around this narrow wedge of exposed volcanic rock just 20 miles long, more than 20 U.S. Navy and Marine Corps commands conduct training and testing activities.

SCI's distance from the mainland and its complete Navy ownership make the island and its surrounding area ideal for R&D activities, fleet training and weapon and electronics system testing.

The U.S. Navy's Sea, Air and Land Teams, commonly known as the Navy SEALs, are the Navy's primary special operations force and a component of the Naval Special Warfare Command. Every Navy SEAL, including the ones who killed Osama bin Laden, trains here at some point.

[Training on the island](#) has increased 25 percent since the terrorist attacks of September 11, 2001. The Department of Defense constructed a \$21-million simulated U.S. embassy compound to train troops in rescuing Americans.

SCI serves as the cornerstone of the U.S. Navy's west coast tactical training and testing area known as the SOCAL Range Complex. More than a dozen range and operational areas are clustered within a 60-mile radius of the island.

SOCAL supports one of the world's largest concentrations of naval forces -- the U.S. Navy's Pacific Fleet, the world's largest fleet command. The Pacific Fleet encompasses 100 million square miles, nearly half the Earth's surface, from Antarctica to the Arctic circle and from the West Coast of the United States into the Indian Ocean.

The Pacific Fleet owns and operates SCI, which is administered by NASNI (Naval Air Station, North Island). NASNI is located at Naval Base San Diego (NBSD), which serves as a primary homeport for the Pacific Fleet

SCI's distance from the mainland and its complete Navy ownership make the island and its surrounding area ideal for R&D activities, fleet training and weapon and electronics system testing.

And all of this directly adjacent to the largest concentration of human beings in their millions along the U.S. west coast and SoCal seaboard.

The essence of empire, according to the British, is that empire has no permanent friends or permanent enemies, only permanent interests. America's version of the colony is the military base.

In order to put "preventive war" into action, we require a "global presence," the U.S. dominates the world through its military power more than 800 bases in foreign countries

According to the Navy, the Pacific Fleet encompasses approximately 200 ships, 2,000 aircraft and 250,000 sailors and Marines. "Together they keep the sea lanes open, deter aggression, provide regional stability, and support humanitarian relief activities."

The San Clemente Island Underwater Range (SCIUR) is maintained and operated by the Naval Undersea Warfare Center, San Diego Site. The SCIUR is located off the northeastern side of San Clemente Island and consists of six bottom-mounted hydrophones that provide a coverage

area of approximately 50 square nautical miles. The SCIUR has an acoustical, an optical and a radar system for surface impact location.

Navy SEALs Deep Underground Military Base = D.U.M.B. -- sub base

Deaths may or may not have occurred as a result of "[Operation Wigwam](#)," a deep underwater nuclear test carried out in May 1955 by the Atomic Energy Commission (AEC) and the U.S. Department of Defense (DoD) that detonated a 30-kiloton nuclear bomb in the Pacific Ocean approximately 500 miles southwest of San Diego.

In Feb. 2011, two separate Southern California dive teams [dove a "mystery wreck"](#) in 300 feet of water just off the San Clemente Island's Lost Point area. The divers originally thought the wreck was a World War II submarine, but changed their minds after determining that the thing had no torpedo tubes, no propellers, no rudder and no conning tower.

The "hot" wreck turned out to be a sunken Wigwam relic

"It was actually Squaw-29 that was discovered at SCI," explained amateur maritime historian and shipwreck researcher Gary Fabian.

Operation Wigwam

Operation WIGWAM was a deep underwater nuclear test conducted as part of the 1945-1962 United States series of atmospheric nuclear tests. It took place in May 1955 in the Pacific Ocean approximately 500 miles southwest of San Diego, California, under the joint administration of the Atomic Energy Commission and the Department of Defense (DoD). The purpose of the operation was to determine the radiation and pressure phenomenology associated with nuclear detonations at great depths and to ascertain the effects such explosions would have on submerged and surface vessels.

Approximately 6,800 personnel and 30 ships took part in this operation under the Commander, Joint Task Force Seven, a multi-service) ad hoc military formation that originated with the United States Navy around the beginning of World War II in the Pacific.

A single, 30-kiloton nuclear device was suspended by cable from a towed unmanned barge to a depth of 2,000 feet in water that was 16,000 feet deep. Located at varying distances along the approximately six-mile (30,000 feet) long towline between this barge and the fleet tug, USS TAWASA (ATF-92), were a variety of pressure-measuring instruments, unmanned and specially prepared submerged submarine-like hulls (called squaws) as well as instrumented and also unmanned surface boats.

The purpose of Wigwam was to determine the vulnerability of submarines and surface ships to deeply detonated nuclear weapons, and to evaluate the feasibility of using such weapons in a combat situation.

The major operational element of Wigwam was a 30,000-foot-long floating blast line array that included three "target units" – specially prepared unmanned submerged submarine-like hulls called "Squaws." The blast destroyed one of the Squaws and another was lost at sea. The third – Squaw 29 – survived and was later used in other atomic tests before mysteriously disappearing from the record books ... until now.

No one I talked to ...not the U.S. Navy nor the local shipwreck dive experts ... could tell me what the thing is doing there.

"I did a lot of digging to try and determine how the Squaw ended up at SCI, but I was unable to find a specific reference," Fabian told me. "I'm sure it's probably noted in a Navy deck log somewhere, but this part of the story is still a mystery."

I contacted the U.S. Navy about Operation Wigwam and asked if there had been any fatalities as a result of the nuke test.

"There were no fatalities associated with Operation WIGWAM and the maximum doses to participants was less than one-tenth of the annual limit to occupational workers, according to the Defense Threat Reduction Agency," I was told by Commander Brad Fagan, director of public affairs for Navy Region Southwest in San Diego.

But some people involved in Operation Wigwam claim that deaths did occur, only they were the result of radiation poisoning and took a number of years to manifest.

I found a [link to the minutes of a Jan. 20, 1995 meeting](#) of the Advisory Committee on Human Radiation Experiments, part of The National Security Archive, an independent non-governmental research institute and library located at The George Washington University in Washington, D.C. The Archive collects and publishes declassified documents acquired through the Freedom of Information Act (FOIA).

One of the speakers addressing the committee was Joan McCarthy, widow of Tom McCarthy, who she said participated in Operation Wigwam. According to the meeting transcription, she said:

"Tom participated in Operation Wigwam in 1955. He died an untimely death from radiogenic cancers at age 44. He was ill with undiagnosable symptoms from the age of 36. He had many of the cancers that are on Public Law 100-321, however, the primary on his death certificate is lung cancer."

"During the week before he died, Tom told me about his participation in Operation Wigwam, and he expressed concern as to what happened to the other men."

She cited an article titled "Operation Wigwam: The Story of California's Secret Nuclear War, the Enemy, 6,500 Americans," by the Center for Investigative Reporting (CIR), a nonprofit news organization based in Emeryville, Calif., that has conducted investigative reporting since 1977.

The article does not appear on the [CIR website](#) (or anywhere else that I could determine), but it is excerpted in numerous places online such as the Washington Nuclear Museum and Educational Center (WANMEC), part of the [Washington chapter of Physicians for Social Responsibility](#), based in Seattle, Wash.

The WANMEC article "[Plutonium to Operation Wigwam off the coast of San Diego.](#)" appeared in the free toxicology encyclopedia Toxipedia.

The article has one of the Squaws being lost near Catalina Island, information that I didn't find anywhere else. Then there's the story of "Captain" Richard Purdy, skipper of the U.S.S. Marion County. States the article:

"When hit by the tidal wave caused by the explosion, the ship's bow doors and several pieces of deck machinery were severely damaged. Since Capt. Purdy could not safely move his ship forward, he traveled in reverse for 480 miles backwards to get back to Long Beach harbor. After docking in a classified area of the harbor, Capt. Purdy was not allowed to leave. A technician from the Scripps Institute checked him for [radiation](#) and found his shoes were too "hot" to allow him to leave his vessel. A few years after Operation Wigwam, Purdy was diagnosed with leukemia and lung cancer. He died shortly after."

On his deathbed, Purdy (now identified as Commander Purdy) reportedly called in a young neighbor, Ron Josephson, and spoke haltingly into a tape recorder detailing and setting down the record on Wigwam, saying, "It's too late for me, son, but I feel that we're all left holding the bag, all those crews, not just on my ship, but all those crews."

The most damning claim in the CIR article: "... the naval personnel being assembled for the blast were unwittingly participating in a nuclear war games experiment."

The U.S. Navy had no further comment on this reported information, but I did find someone who was willing to discuss the matter:

Steve Lawson is president of California Wreck Divers (CWDs), based on Manhattan Beach. The organization's divers explore California shipwrecks and systematically research and seek out wrecks. I visited the CWD website and found a database of more than a dozen sunken ships in and around San Clemente Island that went down due to accidents, inclement weather, use by the Navy for target practice or ended up in Catalina Harbor as the victims of movie script.

Lawson is familiar with the Squaw-29 wreck and told me that it rests about two miles south of Lost Point on the backside of San Clemente Island in little more than 300 feet of water. When I asked him about the claims made in the CIR report, he responded with indignation.

"Now this is the kind of Internet conspiracy fodder that I abhor. It's full of gross errors, hyperboles and outright fabrications. It's been copied on other sites that purport it to be truthful."

Lawson particularly objected to the claim that dozens of sailors, contractors and civilians who participated in Operation Wigwam subsequently died of various types of cancer.

"And exactly how did the author obtain this information? What are the names of those that died from cancer and in what period of time? Given the number of men that participated in the event, the deaths of 'dozens' or a minimum of 24 would not be unusual, even in a population of as little as one hundred ... assuming the men lived into their seventies. Purdy died twenty-five years after the event in 1980."

"As you can tell, I've developed a cynical attitude towards such stories, having heard all kinds from Japanese submarines to Spanish galleons lost off our coast. Some come from those long passed who's honor and legacy speaks for the truth. Some are born from the neck of a bottle while others are pure fiction created by bullshit artists."

Squaw-29

In June 1958, for Operation Hardtack I, the sole Wigwam survivor, Squaw-29, was nuked again.

Operation Hardtack I was a series of 35 nuclear tests conducted by the U.S. in 1958 at the Pacific Proving Grounds, a number of sites in the Marshall Islands and a few other sites in the Pacific Ocean

Shot Umbrella, a shallow underwater nuclear detonation in the Hardtack I series of tests, was fired at 1115 on June 8, 1958, at Eniwetok Atoll, a large coral atoll of 40 islands in the Pacific Ocean. Enewetak is a circular atoll in the Ralik Chain of the Marshall Islands, located near the equator northeast of Australia.

The device was fired from the bottom of Eniwetok lagoon at a depth of 150 feet.
<https://youtu.be/V6qj7OX298Y>

Squaw-29 was submerged 1,600 ft (488 meters) from surface zero at apparently periscope depth. It suffered pressure hull deformation, mainly dishing-in of the hull between frames. Heavy damage was sustained in the main ballast tanks, with 1,340 PSI peak pressure being recorded. This was probably due to the presence of air pockets within the ballast tanks amplifying the shock pulse. Despite this, damage was considered as being significantly shorter than lethal.

According to Steve Lawson, following Umbrella, some minor hull distortions occurred on Squaw-29 and the external ballast tanks ruptured, requiring the external ballast keel to be removed by detonating charges. Squaw-29 was then towed into Pearl Harbor Naval Shipyard, dry-docked and thoroughly inspected.

In Nov. 1959, Squaw-29 was moored off the coast of Mexico in 3,492-ft. of water using four legs or chains to secure it to the bottom. Suspended at a depth of 200 feet, it was used as a submarine sonar target for various naval surface craft in training exercises. Its mooring was estimated to last five years and as predicted.

On Oct. 2, 1964, Squaw-29 was observed (as predicted) awash on the surface and was brought back into San Diego harbor by the tug Cocopa.

Once in dry-dock, it provided a few interested Naval Oceanographers the opportunity to study bio fouling on the sub, moored at depth for several years.

In 1966, Squaw-29 was returned to its mooring for use in anti-submarine warfare training and remained as target as late as 1974.

Some unverified accounts suggested it may have been sunk by the USS Waddell DDG-24, date unknown.