

**Our Ocean Backyard — *Santa Cruz Sentinel* columns by Gary Griggs, Director, Institute of Marine Sciences, UC Santa Cruz.**

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**Coastal Contrasts—Scotland and England**



*Caravans on the edge of the rapidly eroding bluff along Yorkshire co*



*Google Earth of one of many caravan parks at Hornsea, along the Yorkshire coast with encroaching bluff edge.*

After four weeks and over 3000 miles of Scottish and English roads and highways we have reached Spain and Portugal for three more weeks of coastal adventure.

The highland coast of Scotland was mostly wild, rugged, and sparsely populated. Villages, small towns, really old cemeteries and the remnants of ancient castles and cathedrals scattered across the landscape, connected by narrow, sometimes single track roads, made for slow driving and frequent pull offs to take photographs or venture down to the virtually untouched beaches.

On the Isle of Skye we hiked to what is locally called the “coral beach”, a small, crescent shaped bay with a white coarse beach sandwiched between adjacent

sections of shoreline covered with black volcanic cobbles. The very cold water here at latitude 57.5 degrees north, about the same as Juneau, Alaska, however, don't make for ideal conditions for coral growth. The beach actually consists entirely of coralline algae (which you also find on some Santa Cruz beaches, which is a marine plant that forms calcareous skeletons looking like coral).

Working our way down the Yorkshire coast of England, however, we encountered a total different and much more subdued landscape, and also one that was much more crowded and impacted, and understandably so. England has a total population of about 63.5 million, while Scotland has only 5.3 million, smaller than greater London, which is home to 8.6 million people.

And it turns out that a lot of those people crowded into London and some other large cities like to get away and go the shore, places like Brighton and Seabright, as well as the Yorkshire coast. Over the past decade or so, hundreds of acres of hay fields and sheep pastures perched above the sea along this portion of England's east coast have been converted to "caravan" parks, think De Anza Mobile Home Park on the west side.

These weekend manufactured homes (400-600 sq. ft.) can be purchased new for \$50,000 to \$100,000 and provide a quiet weekend or summer holiday retreat, surrounded by hundreds of others seeking the same solitude, all situated about 10 feet apart in rows and columns like desks lined up in a school classroom.

We stopped in to chat with one park owner (Paradise Meadows, Sea View, or some similar name), which had 700 trailers. Each owner pays \$4000 to \$6000 annually for the pleasure of using a small patch of grass and being close to the sea.

We are struggling in California with an eroding coast and a rising sea, which is going to increase the rate of retreat. How do we deal with all of our investment in private development and public infrastructure over the long-term, whether it's West Cliff Drive or San Francisco International Airport?

After navigating the caravan parks and massive amusement, casino and fast food filled centers that characterize some of the Yorkshire coast towns, we realized that they have solved the retreating coast problem.

It turns out that 50 to 75-foot high bluffs consisting of very weak glacial clays back this section of English shoreline. For centuries they have been eroding at 5-6 feet per year, and over 20 feet in stormier years. An entire book was written in 1912

(The Lost Towns of the Yorkshire Coast), which describes over 30 towns that have been completely lost to the sea as the shoreline has retreated over three miles since the time of the Roman occupation.

With mobile homes now covering many bluff top areas, they can simply lower the coaches back onto their wheels, hook them up to a truck and roll them a few hundred feet inland, making these very resilient communities- not scenic, not attractive, not natural, but resilient.