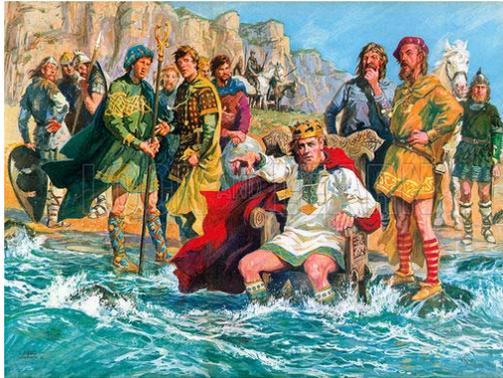


Our Ocean Backyard — *Santa Cruz Sentinel* columns by Gary Griggs, Director, Institute of Marine Sciences, UC Santa Cruz.

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Holding Back the Sea**



King Canute Trying to Hold Back the Sea.

A thousand years ago, when national boundaries were a bit different than today, there was a wise King who ruled both sides of the North Sea, including what today is occupied by Denmark, Norway, England, and Scotland. He was apparently quite well liked, had performed well in a number of wars, and also conducted himself gracefully in most kingly matters.

The great men and military officers who hung around King Canute were always praising him. "You are the greatest man that ever lived," one would say. Then another would say, "O king! There can never be another man so mighty as you."

The king, however, was a wise man with much good sense, and he grew very tired of hearing such foolish words. One day he was hanging out at the beach, as he did from time to time, surrounded by his officers. They were praising him, as they were in the habit of doing, and he thought it might be a good opportunity to teach them a lesson. So he requested that they set his chair on the sand close to the edge of the water.

"Am I the greatest man in the world?" he asked. They all cried out, "there is no one as mighty as you". "Do all things obey me?" he asked. "Great Canute, there is nothing that dares to disobey you." They said.

“Will the sea obey me?” he asked. By this time the tide was coming in and the waves were getting a bit closer. The foolish officers were afraid to say “No” and kept silent, but one foolish one exclaimed, “Command it, O king, and it will obey.”

“Sea”, Canute said with authority, “I command you to come no farther! Waves, do not dare to touch my feet!”. But the tide came, just as it did every day. The water rose higher, coming up to the king’s chair, and wet not only his feet, but also soaked his royal robe.

The officers were a little concerned by this and not sure what to expect next. With great drama, King Canute stood up, took off his crown and threw it on the sand declaring he would never wear it again. Hoping to teach all of those surrounding him a lesson, he reportedly said something like “All the inhabitants of the world should know that the power of kings is vain and trivial”.

King Canute’s story is often used to make the point of the futility of trying to hold back the sea. Well, the legislators in North Carolina apparently did not read the story and have recently approved a new law that just went into affect that attempts to regulate sea level rise.

The new law, signed by the governor, mandates that only the Division of Coastal Management will be allowed to put out an estimate of the rate of sea-level rise, and that these rates shall only be determined using historical data. Rates of sea-level rise may not include analysis of trends or scenarios of accelerated rates.

The bill was written in response to an estimate by the state’s Coastal Resources Commission that sea level would rise by 39 inches by the end of the century, a significant increase over the past century. This prompted fears of costlier home insurance and accusations of anti-development alarmism among residents and developers in the state’s Outer Banks region.

Tom Thompson, president of NC-20, a coastal development group and a key supporter of the law, said the science was flawed and that the Resources Commission failed to consider the economic consequences of the 39 inch rise: numerous new flood zones would have to be drawn, new waste treatment plants would have to be built, and roads would need to be elevated. This would cost the state hundreds of millions of dollars.

A geologist on the State Science Panel in North Carolina said every other state in the country is planning on three-feet of sea level rise or more. Maine is preparing

for a rise of up to two meters by 2100, Delaware is using 1.5 meters, Louisiana a meter, and California 1.4 meters.

One North Carolinian, writing in Scientific American, put it quite well; he stated that this legislation is tantamount to telling meteorologists “do not predict tomorrow’s weather based on satellite images of a hurricane swirling offshore, moving towards us with 60 mph winds and ten inches of rain. Predict the weather based on the last two weeks of fair weather with gentle breezes towards the east”. And don’t use barometers and radar images. Use the Farmer’s Almanac and what grandpa remembers.