Wally Trabing's

Mostly about People

Our vanishing beaches

A MAN WHO has been studying the movement of sand around the rim of Monterey Bay where it affects Santa Cruz County, has concluded that our beaches are in a period of decline and that in the future the cliffs and natural land barriers are in jeopardy.

Dr. Gerald Weber, a geologic consultant here, says he has maintained a study of the sand movement over the past 10 years.

He is seeing a thinning of our beaches, especially those exposed to the open bay, from the San Lorenzo River south and from Ana Nuevo island, south along the coast.

"Let's go to the beach," are the golden words that has made Santa Cruz area a lucrative beach resort throughout most of its modern history.

And so if Weber's theory is right...

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This is the way he visualizes the situation:

"The system of sand movement along the coast is called littoral drift.

"Sand comes from the rivers and streams and creeks from as far away as Pescadero and drifts southward down the coast with the slanting drive of the waves.

"The amount of sand that has moved along the coast over, say 5000 years, establishes an equalibrium, a pattern.

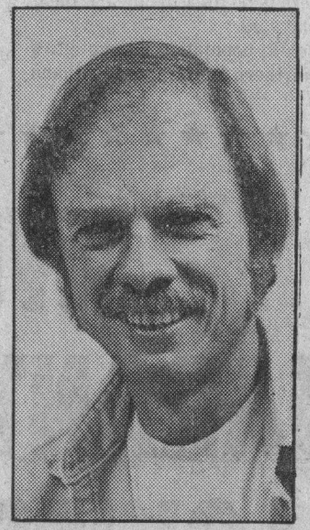
"It set the shape and depth of our beaches.

"This equalibrium was greatly disturbed by one small recent geologic episode at Pt. Ano Nuevo, or New Year's Island, near the Santa Cruz/San Mateo county line," said Weber.

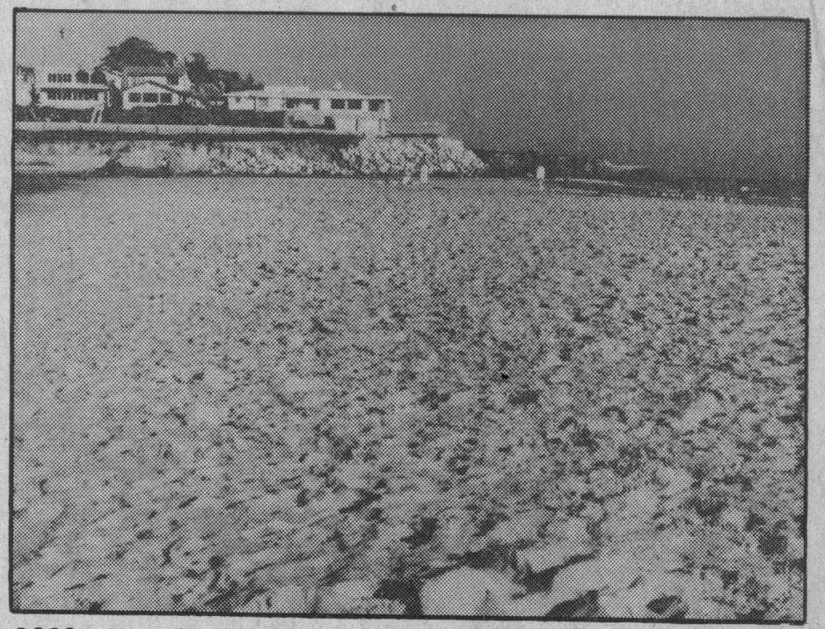
Now, you see an island that takes the name, but at one time it was connected to the mainland. The point swung out a goodly distance into the sea and, Weber says, it trapped tremendous volumns of sand on the north side.

"Around 1750, a channel broke through, establishing an island.

"As the channel widened (now it's more than a half mile) sand began pouring through from the build-up on the other side.



Dr. Gerald Weber



TWIN LAKES BEACH: exposed piling (left) from Santa Cruz-Capitola street car system; photo taken at low tide, March 1982. At right, the sand returns to cover the piling in photo taken one month later.

area too shallow and they were torn down. Ships then used the present Municiple Wharf, but again the sand made this harbor unusable. The last freighter tied up to the wharf in 1936, said Skip.

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Sand moves in mysterious ways.

Recently much of the surfing action has swung from Lighthouse Point to the San Lorenzo River mouth, said Littlefield. A developing sand bar is producing excellent wave action.

This happens periodically and, incidentally contributed to the birth of surfing on the Pacific Coast.

"Ninety five years ago, when the sand was producing the best wave action at the river mouth, it all happened.

"Hawaii's King Kalakaua I, the only reigning monarch ever to visit Santa Cruz County, inspired Queen Kapiolani to send her nephews here to live while they attended a peninsula school.

Prince David Kawananakoa and his brother, Edward, amazed beach tourists by riding giant surf boards over the quarter mile sand bar extending from the river mouth.

"Those boards were solid redwood planks, made locally by the Grover Lumber Co. in 1887. They weighed over 100 pounds and were 15 feet long.

"Hawaii's immortal 'Father of Surfing,' Duke Pua Kahanamoku, remembered those boards when he surfed Lighthouse Point in 1938. The river mouth sand bar disappeared in 1920.

"Return of the sand bar off the river mouth this year is evidence of the shifting sand that is generally filling the sector," said Skip.

Thus, you have a couple points of view of our everlovin' money makin' sand.

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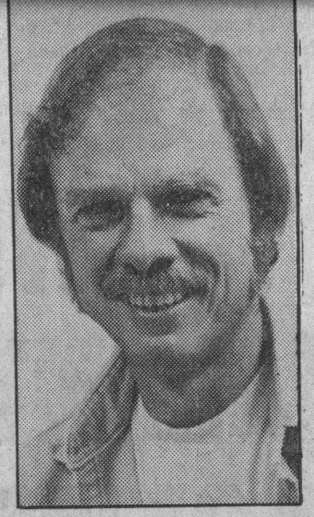

Dr. Gerald Weber

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"It zig-zagged its way with the wave action along the surf line, adding to the sediment from the streams and widening the beaches to deep stretches of creamy white sand."

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Then Dr. Weber began to notice, and this was 10 years ago, that the reservoir of sand on the north side of Ano Nuevo Pt. was nearly gone.

"The waves were now eroding rock instead of sand."

Over the past 10 years he has observed very little sand movement there and figures that the width of the beaches are now almost back to the sizes they were before the channel broke through at Ano Nuevo Pt.

"We are now back depending on the sediment from the coastal streams.

"But even this is a lesser amount," he said, "because since the buildup of the population, dams and reservoirs and other stream blockages have further reduced the sand available to our beaches.

"I sat down and worked out the multimillion dollar loss in economy should a lack of beaches affect the tourist trade, but I don't have the figures around now," he said.

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Another economic factor is sea damage.

"What people do not realize is that we are already seeing the effects of beach loss along Beach Drive in Rio Del Mar and Seacliff Beach State Park and New Brighton Beach. The cliffs in this area are young and vulnerable.

"I think over the next 10-20 years you will see the effects dramatically with damage to the homes near the beaches.

"Old timers tell me that winter storms still remove much of the sand, but less is put back in the summer. There is definitely less sand now along our coast."

Dr. Weber said, however, that Cowells Beach and Santa Cruz beaches are the least affected because they are tucked in a cove area protected by Lighthouse point.

The sand taken away by winter storms moves down the coast and falls into the tremendous Monterey Submarine Canyon (see Thursday's column).

"I think there must be some warning given to people building near the beaches. It will become a tremendous load on the taxpayers to keep building protective barriers to stop the winter surf. There is really no solution except to make people aware what is happening," said Dr. Weber.

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He said the exceptionally heavy rains this year did add an unusual amount of sand on Cowell and the Boardwalk beaches.

One veteran beach watcher, Skip Littlefield said that the main beach has three more feet of sand than it did 20 years ago.

As public relations director for the Seaside Co.'s Boardwalk for nearly a half a century and before that as a swimmer — 55 years in all — Skip has seen Cowell's beach down to plain rocks after one storm.

"The Casino was built on pilings and you used to be able to walk underneath, but today sand has filled in to within several inches of the floor.

From 1915 to 1936, sailing vessels and schooners would unload here, first at the old Cowell Wharf and then the railroad wharf, but sand build-up made the area too shallow and they were torn down. Ships then used the present Municiple Wharf, but again the sand made this harbor unusable. The last freighter tied up to the wharf in 1936, said Skip.

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