walls of turgid cells have pore diameters different from those of flaccid, plasmolyzed, or collapsed cells, and whether or not such a difference, if any, has any biological significance, are still valid questions. But pertinent to these questions are the results of Janes (*5*), who showed that turgid pepper plants could not absorb PEG 4000 from root solutions even though exposure to PEG 4000 lasted for up to 7 days. Although plant cells are capable of absorbing PEG's smaller than 4000 daltons (*5*), Handa *et al.* (*6*) have recently shown that suspension cultures of cells adapted to grow in concentrated solutions of PEG exclude ^{3}H-labeled PEG 4000 for 12 days even though the turgor pressures of these adapted cells were six- to eightfold higher than those of cells growing in the absence of PEG. Thus, Tepfer and Taylor's hypothesis that the walls of turgid cells have limiting diameters substantially larger than those of flaccid cells has not been supported by any direct experiments.

I contend that our data represent an accurate estimation of the limiting diameters of the pores of the cell walls of those cells that we measured, and that cell-to-cell communication with molecules larger than about 40 Å would be severely restricted.

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Barrier Islands Revisited

It is rewarding to see that our research on the mid-Atlantic barrier islands (*1*) has led to further investigation by Leatherman and his co-workers (*2*). Unfortunately, they have attributed to us several statements that are incomplete, inaccurate, and thus, misleading.

First, nowhere in our report did we postulate, as Leatherman *et al.* state, that "two capes will develop within 100 years along the barrier island chain on the eastern shore of Virginia in response to a theoretically trapped standing edge wave." Our theory is that "If past trends in shoreline change continue, two capelike features may develop within the next century." We used the term "capelike" to distinguish the type of shoreline protrusions that could develop along the Virginia coast [see figure 3 in (*1*)], from the full-scale or true capes, such as Cape Hatteras and Cape Lookout. More importantly, we state in straightforward terms that cape development could be initiated in association "with (i) irregularities in the orientation of the coast due to regional-scale geology or (ii) variations in the intensity of processes occurring along the coast."

Second, in our discussion of standing edge waves, we only pointed out that a modal number 3 edge wave results in an almost perfect fit with the predicted locations of the capelike features. In a previous publication (*3*), we discussed the implications of matching edge wave modal numbers with periodicities in shoreline landforms. But in our *Science* report, where we introduced the concept of edge wave modal number 3, we went on to state that "this does not mean that only edge wave modal number 3 is involved, or that edge waves are responsible for the large sedimentary capes of the Atlantic coast."

Third, it is difficult for us to believe that anyone could read Inman *et al.* and Guza and Inman (*4*) and reach the conclusion of Leatherman *et al.* that "Inman and his co-workers have not shown that edge waves are a primary factor in shaping shorelines." Guza and Inman state (on p. 2998), "It is the contention of the present work that edge waves, both directly and via their interaction with other water motions, are responsible for many cases of cuspate topography." Guza and Inman go on to state (on p. 3006) that "It is conceivable that topographic feedback to edge wave excitation is so strongly negative that there is no important topographic response. We [Guza and Inman] believe this highly unlikely. Edge waves most probably provide an initial longshore periodic perturbation in the topography. . . ." As for the need to have an "effective headlands to trap a standing wave," as Leatherman *et al.* suggest, Guza and Inman state (on p. 3011) that "when the incident wave field is long-crested and of uniform amplitudes, there is no need for such end effects (headlands, groins, or curving shorelines) because any radiative energy losses out of the 'ends' of the system are only a small fraction of the total nonlinear energy input."

One of the most significant developments in coastal science over the last two decades has been the concerted effort by many investigators to explain the regular and periodic variations in landforms that occur along sedimentary coasts. These landforms range in size from beach cusps to capes. We have reported on along-the-coast periodicities ranging in wavelength from hundreds of meters to tens of kilometers (*3*, *5*). Explanation for periodicities in shore zone landforms (cusps, bars, overwash patterns, and so forth) and associated processes have in recent years focused on the role of standing waves and intersecting wave trains. We specified in our report (*1*) that "our studies of shoreline dynamics for the 122 km of coast between Cape Hatteras and Cape Lookout indicate that edge waves may play an important role in regional scale variations in shoreline dynamics." At this time we see nothing to lead us to believe otherwise. The tabulation of classical geomorphological factors cannot, in our opinion, account for either the crescentic shoreline landforms found along most sandy coasts, nor the tripartition of the Virginia barrier islands.

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