

Flooding the Beach Script

I'd like you to close your eyes for a moment. Please imagine that you are standing on a beach. Facing the ocean but about five yards from the water's edge. The beautiful, soft, dry sand between your toes. The sun shining gently on your body. Don't worry, you've put on plenty of sunscreen so you are safe from UV light. Maybe there is a light breeze blowing in your face as you stand there with your eyes closed enjoying the sound of the waves, the smell of the salt.

Now still with your eyes closed, I'd like you to imagine walking down to the water's edge, the sand changing from dry to wet as you approach the water. You step into the water and walk until it is at your ankles, at your knees. Maybe a wave or two hits a touch higher. But the water feels refreshing and invigorating.

Good, now kindly open your eyes and let that go. Please take a moment and come up with one word that captures that experience.

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Wonderful. Now if you are comfortable, please take off your shoes and stand up in your socks or bare feet. Take a moment to look around you, and notice where other people are standing. In just a moment, I'm going to ask you to close your eyes and move and step in place, so notice where others are. We won't actually be traveling around the room, just stepping in place, so don't worry.

Now please close your eyes again. And again you are standing on a beautiful sandy beach. Again you are facing the ocean but roughly five yards from the water's edge. Perhaps you are alone. Perhaps there is someone there to support you. Wiggle your toes in the warm sand and feel the grains gently work their way between your toes. Again the sun is gently warming you. The sea breeze gently cooling you.

Walk down to the water's edge. You can step in place where you are. Feeling the sand beneath your feet. Feeling it change from dry to wet. Arrive at the water's edge. Before you walk into the water, pause for a moment in the damp sand. Shuffle your feet back and forth in the sand causing liquefaction. The sand gives way a little and you sink into the ground in that fun way kids love. The wet sand slowly covers your feet as you sink in.

Enjoy that moment of a small-scale earthquake. Then, step out of the sand and shake the clumps of sand off each foot.

Take a few steps into the water. Really feel the water around your ankles. The waves lapping at your calves. The sand and sea floor below your feet.

Keeping your eyes closed. Take a few more steps into the water until it is at knee height. A few more steps until you are in the water to your waist. The waves are not aggressive, but you can feel them nudging you as they come in and tugging you as they rush out. Nudging your weight onto your heels. Tugging you onto your toes. Nudging. And tugging. Nudging. And tugging. Maybe your hands are touching the surface of the water, maybe they are still out enjoying the air. But still the waves Nudging. And tugging. Moving your hips with the water to stay upright. Weight in the toes and then the heels.

Now, while still keeping your eyes closed, and while maintaining the water around your waist, I'd like you to let the beach go. Hold onto the water and its movement, but let the beach and sun and sand go. Instead imagine yourself in the center of the Drillfield on Tech Campus. Still with the water at your waist. Or in the University Bookstore. Still with the water. Or in the Graduate Life Center. Still with the water.

Maintain that water around your waist with your eyes closed as I tell you this next detail. Peter Sforza and The Center for Geospatial Information Technology did an analysis of the Virginia Tech campus' susceptibility to flooding and found that in a hundred year flood scenario that spot, the drillfield, the Bookstore, the GLC would be that deep in water. It potentially could be at your waist.

Feel that for a moment.

And now let that go and open your eyes.

And take a moment to come up with one word for that experience. Compare it to your first word.

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Now, I became interested in this after chatting with Peter Sforza and reading a funding proposal of his titled **“Decision Tools for Coastal Communities in Virginia: Sea Level Rise and Ground Floor Building Elevation.”** He was thinking of submitting a transdisciplinary proposal with Robert Weiss and Coastal@VT to NASA. I'm going to read you one paragraph of the proposal because I enjoyed how thoroughly it confused me:

The Center for Geospatial Information Technology (CGIT) at Virginia Tech has previously developed methods and workflow for lidar-based estimates of ground floor of

buildings for the Region2000 Regional Commission and Virginia Tech Hazard Mitigation Plan, for inclusion into FEMA's HAZUS software for flood hazard identification and risk assessment for an inventory of built structures. For this project, we will combine those building elevation estimates with results of RCP 8.5 scenarios to produce maps that combine building first floor elevations at 95%, 50%, 25%, and 5% percentiles for RCP sea level rise scenarios.

What does that mean? Essentially, they want to create 3-D maps so that people who live on the Virginia coast can see how flooding from sea level rise will impact them. And they feel confident in their ability to do this because they have already done it with the Tech campus. As seen in the imagination of the beach that we just encountered.

What fascinated me about this proposal is that it got delayed in submitting and once it got in, NASA said they had no money left but were definitely interested for the future. Time, energy, other important projects, life, deadlines, funding, bureaucracy, and so many other components both here and at NASA led to this collaboration across Coastal@VT not becoming a reality. This time. So the project has not happened. Yet. So this potential map of the potential sea level rise in Virginia coastal communities exists but also does not exist. Just as that waist deep water now exists in each of our minds but also does not exist. Just as Coastal@VT as a transdisciplinary concept both exists as a real entity on campus, but also does not exist as it falls between the gaps of departments and programs.

We must change that potential into reality for the map, for the project, and for Coastal@VT before the waist deep water becomes neck deep.

So, your third word is potential. You have your two words and the word potential. How do they compare? How do they intersect?

Thank you.