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The Seawall Solution

The purpose of the experiment was to determine which shape of seawall best dissipates the force of a wave impacting a beach. To get our data, five different shapes of seawalls were tested and one control to see how much beach erosion occurred after being put through a ten wave sequence. The wave action was created by a person pushing a water filled container that contained the model beach forward one foot and back to them. The data showed that the Triple X Wall, a wall that consisted of six pavers arranged in three x's, best dissipated the force of the waves. The straight wall worked second best, using only four pavers. The other four wall shapes dissipated wave force to a lesser degree than the straight wall. Because of this data, we can recommend the Straight wall for a real world situation because it had the lowest cost and a high efficiency. We would also recommend the Triple X wall for smaller coasts and beaches because it was the most efficient but it also cost more. The application of this experiment is huge. If more towns on the coast installed seawalls, beach erosion could be significantly reduced. Also, if the town were hit by a storm or hurricane, the seawall could prevent homes and other structures from being destroyed. An investment in a seawall could save money and possibly lives.