

including excruciating pain and even death.

Washington Roebling, the son of John Roebling, both famous bridge builders, suffered his entire life from exposure to this construction method. Eventually James Eads' own personal doctor figured out the cause and the solution to this problem.

What was the construction improvement? Why did the workers die? What was the solution?

3. In 1964, the worst dam failure to date occurred, killing more than 3,000 people as a huge surge of water flooded several towns. However, the dam structure itself, a novel thin shell concrete design by Carlo Semanza, did not fail.

Rather, heavy raining caused a landslide of an estimated 480 million metric tons of rock and soil to roar into the reservoir. The tremendous crashing mass filled the basin and displaced almost all of the confined water.

A huge surge drove upriver and flooded a village with a 260-meter-high wall of water, then rebounded back down the valley to overtop the concrete dam. An observer on the far hill estimated that the wave over the top of the dam was almost 250 meters high.

Tragically, the failed slope had been monitored for years before the failure, and a simple plot of the slope's movement indicated that a slope failure was imminent.

What is the name of this dam, named after the city in

which it is located?

4. Terzaghi question: Throughout Karl Terzaghi's life, he was active in consulting activities. However, it is not often realized that he participated in projects with the governments of both sides of World War II.

In November of 1935, Terzaghi met with Adolph Hitler to discuss the foundations and construction of this project, a huge German fairground.

By September of 1938, Terzaghi had fled the oppressive Nazi regime to the United States, and based his operations at Harvard. He became very involved in a number of projects, and by late 1941, was consulting for these shipyards, used for the construction of battleships and aircraft carriers for the U.S. Navy.

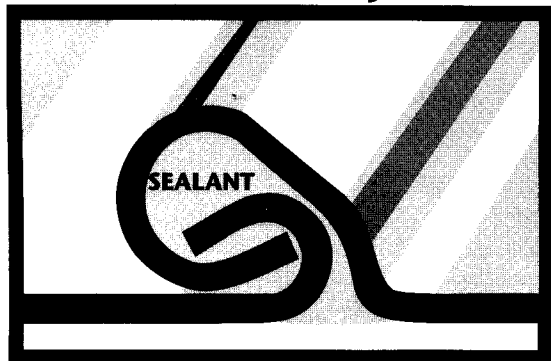
What and where were these projects?

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Answers: 1. The Hoosac tunnel. 2. Pneumatic caisson. Rapid expansion of nitrogen in the workers' blood. Slow down the decompression rate. 3. Valont Dam, Italy. 4. The Reichsparteitag fairgrounds, Nuremberg; Newport News Shipyards, Newport News, Virginia.

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