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Queen of the Adriatic

Tucked into a lagoon on the northwestern edge of the Adriatic Sea is a city with no roads. Instead, 177 canals and 409 pedestrian bridges interconnect the 118 small islands that make up the City of Venice, Italy. Everyone and everything moves around the city by waterway, including municipal transportation, garbage collection, the police, ambulance service, even the fire brigade.

The city was built upon piles made from alder tree trunks, which were driven down to the hard clay at the bottom of the shallow sea bed. The minimal oxygen content and penetrating salts in the water help to preserve and petrify the wooden supports over time. Limestone plates were then set across the piles to create a solid, stable building surface. Brick, stone, and a whole lot of marble were used in the Venetian Gothic style of architecture that sits atop this extraordinary foundation.

The city that many believe to be the most beautiful in the world faces some very serious challenges. One of these, not surprisingly, is rising water levels due to climate change. Flooding instances known locally as *acqua alta*, or high water, are occurring with increasing frequency. At the same time, the land beneath Venice is subsiding for reasons both natural and unnatural.

