

# Flap Project Will Save Venice

**By Dominic Sandish**  
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**O**n Dec. 6, Silvio Berlusconi's government approved the three-billion-euro Mose project to save Venice from flooding.

Its religious name — "Moses" — captures the splendor of the project. The plan is for 79 separate 300-ton flaps hinged on the seabed, designed to rise up and keep water from pouring into the three entrances to the lagoon when high tides are forecast. Efforts to raise the height of the walls around Venice's canals will also continue.

Government officials, such as Edo Ronchi, a former environment minister from the Greens, have frequently delayed Mose.

While Altero Matteoli, the current environment minister, has approved the project, he has also made concessions to environmentalists by simultaneously banning oil tankers from Venice's lagoon. The decision in favor of Mose was immediately criticized by an official from the Greens party, Luana Zanella: "It's deeply perplexing that so many resources are focused on a project that has been questioned by the scientific community."

Gaetano Benedetto from the World Wildlife Fund's Italian branch also attacked the approval of Mose: "Today the city's destiny rests on a pretentious, costly and environmentally harmful technological gamble."

The environmental arguments against the project are often based on apocalyptic fears of climate change leading to a rise in the sea level.

Venice's center-left mayor, Paolo Costa, has challenged Albert Ammerman, an American archaeologist, over his thesis that the dams will not keep Venice from sinking: "I can assume he knows

everything about the past, but not about global warming," Costa said.

Criticizing environmentalists, he claimed: "They rely on someone else's forecasts for global warming. That's not science. We have our own forecast."

So what causes the flooding, and is Venice sinking or not?

More convincing explanations have been put forward by Randolph Guthrie, Chairman of Save Venice Inc.

He says that the city is part of the African geological plate, which is diving under Europe, pulling Venice down. Also, because the Adriatic Sea is enclosed, it produces an unusual phenomenon of a rocking of water, rather like that in a bathtub. Meanwhile a south wind brings water-saturated air that precipitates in the Veneto region, low pressure that causes the sea to rise in a bubble and push water northwards into Venice.

Subsidence rather than global warming is clearly the most significant cause of flooding in Venice.

According to research by Mr. Ammerman published in the journal "Antiquity" (no. 73, 1999), two-thirds of the annual 3.84 millimeter rise in relative sea level can be attributed to subsidence.

Mr. Ammerman estimates that the relative sea level rose by 30 centimeters during the 20th century. But recent measurements by Italy's National Research Council have shown that this has slowed during the last 25 years. The global warming argument against the Mose project is not an adequate explanation of Venice "sinking."

But this argument has been deployed to attack any form of human intervention that may affect the city, from the local petrochemical industry to boats travelling through the lagoon.

Environmental groups such as Italia Nostra and Legambiente have criticized

industry. Environmentalists have called for the closure of Canale di Petrolio, the artificial shipping channel in the lagoon used by tankers.

But records show that high waters have been ravaging the lagoon since 527 A.D. So the local petrochemical industry can hardly be the cause of the flooding.

Project Mose has been examined by Professor Ilean-Marie Martin, director of the European Commission's Environment Institute at the Ipsra research center: "We concluded unanimously that though by no means perfect, the project was the best solution to defend Venice from high waters," he said.

The creation of Venice is one of those examples of an incredible human achievement forced by necessity. In the fifth and sixth centuries, refugees from the countryside took shelter in the marshes of the lagoon to escape Barbarian invaders. Support for buildings was created by driving in wooden poles that still stand below stone foundations. Because it does not come into contact with oxygen, the wood is as solid as it was a thousand years ago.

Project Mose is the best available solution to the flooding.

Environmentalists want to abandon it because they are against human intervention, even though their arguments are dressed up in the language of global warming.

But the city that brought us Antonio Vivaldi and Marco Polo deserves more.

The real miracle may not be the partitioning of the seas, but whether Mr. Berlusconi's government can prevent environmentalists from stopping the implementation of the Mose project.

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