

My first encounter with the city of Venice was not that of a gaping tourist. I was amazed to see the long snakes of Japanese tourists obediently following their guide holding up a coloured piece of cloth, a tiny umbrella or a large flower. This I had never seen before in London, where Japanese tourists often appeared singly in Oxford Street or at other sights. My first visit to Venice was a truly scientific one, as at the end of October 1971, a group of London Science Correspondents, including myself, received an invitation from IBM to visit Venice, in order to see their Computer Laboratory at Papadopoli. There an IBM team had, during the last four years, worked out mathematical models to predict the vital water flow through the lagoons and thus calculate accurately in advance the height of any flood threatening the ancient city.

For a long time four major dangers have threatened Venice. Subsidence, due to the lowering of the water table in the whole of the Po Valley. This had been caused during the last 50 years, by drilling 50000 Artesian wells to provide water for the Population and for Industry. This effect is irreversible.

Storm surges in the Adriatic Sea and the resulting high tides. These could be stopped by building a barrage with floodgates between the outlying islands, one of which is the famous Lido. This is one solution.

The population increase which has brought with it severe pollution of the canals by sewage and domestic effluents. At the time of my visit I was appalled by the strong smell of hydrogen sulphide emanating from the smaller canals, indicating that there was no longer any oxygen in the water and all aquatic life had been killed.

Air pollution from the exhaust fumes of the motor-boats, damaging the stone work of the buildings up to a height of 4 meters above sea level.

These facts were given to our group during extensive briefings organised by IBM and by Professor Francesco Valcanover, the Superintendent of Fine Arts of Venice. We were also informed that a foreign loan of £ 160 million had been approved by the Cabinet of the Italian Government, and it was hoped that close collaboration between the Municipal and Regional Authorities as well as the Italian Government would now lead to a rapid progress in the preservation of Venice. However, none of our group was convinced of this, and as it turned out, political and financial squabbles have delayed and hindered the preservation, far more than a lack of scientific and engineering solutions. [See also "The Flood Problem of Venice" *Interdisciplinary Science Reviews*, Vol. 6, No. 1, p. 57, 1981]