

## SNIFFING OUT DANGEROUS WATERS

SHARKS SMELL BY SAMPLING the contents of the water they swim through. Water flows in through openings on the outside of the shark's nostrils. Inside the shark's head, the water passes through a funnel-shaped passage into the nasal sacs, which are lined with receptor cells. The sharks do use their other senses, like sight and hearing, to home in on the victims, but smell is their strongest tool to assist them with location. Their ability to smell is remarkably sensitive-they are normally capable of detecting dilutions down to one part blood in twenty-five million parts seawater. Under special circumstances it can be even more sensitive. We have done experiments with black-tipped sharks that had not eaten in a while and were good and hungry. They could detect concentrations of only one part blood in ten billion parts seawater. At that sensitivity, they are capable of detecting blood at quite a distance—at least a hundred metres.

Тім Low (contemporary), Canada

Watson and the Shark, John Singleton Copley (1738–1815), United States