

Kelman, I. 2003. "To seal or not to seal: Do human and physical geographies conflict in flood management for individual properties?". Research paper presentation in the session "Geographical Solutions to Flooding Problems in the U.K." (convener Andrew Black) at Geography, Serving Society and the Environment, International Annual Conference 2003 of the RGS-IBG (Royal Geographical Society and The Institute of British Geographers), London, U.K., 3-5 September 2003.

Presentation abstract:

When floodwater appears likely to reach an individual property, the occupier's tendency is to attempt to seal the property to keep the water out. Engineering analyses of wall strength under floodwater loading were completed for modern residences in England assuming that a property is completely sealed. The results show that severe structural damage might occur when only 1.0-1.5 metres of water has risen outside a property.

Protecting a property against such structural failure has more challenges than protecting a property from severe damage caused by floodwater entering the property. Therefore, the decision "to seal or not to seal" is influenced by the expected final level of the flood. An analysis of this decision-making dilemma indicates that, on a physical basis, increasing a residence's internal flood resistance and always permitting water to enter the residence could often be the most appropriate solution.

Whether or not occupants would accept floodwater entering their residence, and would adapt their lifestyle and properties to make this option sustainable, is a difficult sociological question. The human reaction potentially conflicts with the physical analysis. Admitting the strengths and weaknesses on both sides would assist in reconciling them.