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Address for correspondence: Victorian Speleological Association, GPO Box 5425CC, Melbourne, Vic. 3001

#### WATER TUBE LEVELLING

N.I. Smith

#### Abstract

Vertical relationships within predominantly horizontal cave systems have traditionally been determined by measuring vertical angles with a clinometer. However, this system can lead to large errors over long traverses. It is unsuitable for purposes such as determining relative levels in superimposed passage systems where there is no short connecting path.

The principle of levelling using a water-filled tube is well known - the water surfaces at the two ends of the tube will assume the same level when the tube is open to the atmosphere. A number of refinements to the apparatus are necessary to make the system practical for cave surveying. This paper described levelling equipment developed by the Cave Exploration Group of South Australia and reports on some practical experience gained with it in Mulla-mullang Cave, 6N-37.

(The full text of this paper is in Australian Caver No.109, pp 10-13.)