

THE DEVELOPMENT OF PROTECTIVE WALLS

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This paper is concerned with the development of protective walls between 1990 and 2010. During this period there have been two main streams of development, the first has been in the field of permanent steel and concrete and other composite walls, the second in the field of gabion walls. These have led to a range of designs of greatly improved efficiency.

In both cases the development was supported by computer modelling and by small scale model tests, but the most effective research was through full scale tests.

A number of topics were investigated, including:

- Modes of failure and their consequences
- Protection against blast, fragmentation and impact.
- Compartmentalisation and its optimisation (the use of walls within a target area providing partial protection).

Having described and discussed these developments and topics, some examples of protective walls in practice are given to illustrate the utility of the developments.