

# Les Parapluies d'Alne

(The Umbrellas of Alne)

Alne Village Hall, formerly the village school, built in 1877, has poor acoustics. This is as a result of sound being reflected from the flat surfaces walls and the roof back into the centre of the hall.

When busy, people in the centre of the hall have difficulty in holding a conversation.

A number of options had been considered, including:

- A false ceiling would have covered the window at the west end and, more importantly, there was the issue of how to accommodate G. J. F. Newey's lovely time piece, possibly installed in the 1880s, showing the time inside and outside the hall.
- Acoustic panels – a quote was obtained from a specialist contractor, but the cost was prohibitive.
- Some form of textile attached to the flat surfaces. This would create problems with cleaning and maintenance and probably would look unsightly.



The solution borrows an idea from The Royal Albert Hall, which uses fibreglass acoustic diffusers (fondly nicknamed 'mushrooms') to improve the acoustics of the building. The umbrellas act to attenuate and dissipate the sound waves – both from the source and the reflected waves.

Using a variety of sounds generated in the centre of the room, the reflected sound level was measured with and without umbrellas in place. In all cases, a reduction in the reflected sound was measured, with the recording of a "party crowd" showing the greatest improvement – exactly what we were looking for!

The final configuration maximises the sound attenuation, allows for easy fixing within the structure of the building and, most importantly, doesn't obscure G. J. F. Newey's wonderful clock.

As well as solving the problem of the poor acoustics in a unique way, we believe the umbrellas add a certain something to the appearance of the hall.

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