

## **Lethnot Hall**

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Lethnot had installed a Nuair roof mounted system which collected the sun's warmth from the roof slates.

A small 'tent' is sealed against the inside of the south-facing roof, which collects warmth. A tube connects the tent to a small electric pump which filters the warm air and blows it down into the hall. (The system can work in reverse, operating as an air extractor)

This system was favoured as it was small, simple to install, and involved limited disruption of the building. It was hoped that the constant introduction of warm air would help keep the hall frost-free, and make it easier to heat when the main heating is switched on.

The system had been operating for a period, and had introduced warmth into the building, preventing the formation of mildew on the seats.

However, it appears to have created condensation on the walls at ceiling height. An enhanced unit was installed and monitored to see if this problem could be solved. Unfortunately, there was no improvement in the situation, and the system has since been switched off

It may be that this system works, but is not suited to a situation which becomes too cold. It may be that the system is introducing warm air into a very cold hall. This warmer air contains more moisture than the cold air inside and this moisture is then condensing on the walls.