

## Kinneil House, Near Edinburgh

This building contains some of the most important wall paintings in Scotland. Two adjacent rooms show great survivals of 17th Century paintings on plaster.

The project in hand is to control the heating and relative humidity levels in these important rooms. For reasons of economy it was decided to work with the existing oil fired boiler in the basement of the building and adapt it to optimise conditions for the wall paintings.

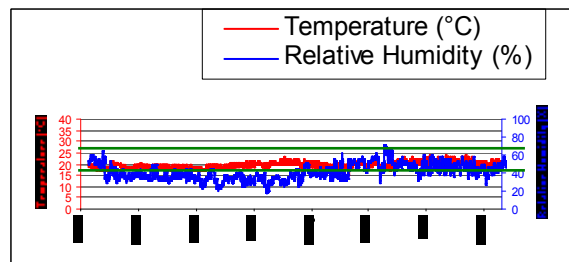


*An example of a wall painting in The Parable Room*



*An external view of the building. The rooms with the wall paintings are behind the grilles on the first floor to the right of the building.*

A data logger was set in position in the area of the wall paintings to record both temperature and relative humidity. It was found that the relative humidity was too high in the summer months due to insufficient heating levels. After considering the impact on visitors and the practicalities of changing the heating system a simple solution was proposed.



The thermostat that controlled the boiler was replaced with a telemetric humidistat. The wireless design allowed the humidistat to be moved to the rooms under consideration without any drilling of the historic fabric of the building.

The humidistat will now switch on the heating if the relative humidity rises above 70%. This will ensure that the wall paintings are not subject to levels of moisture that risk mould growth.

This project is still being monitored and is being undertaken for Historic Scotland with the assistance of Meaco measurement and control.