

THEATRE, SEMINAR, AND RESIDENCE HALL
Keble College, Oxford

Date
1999 - 2002

Architect
Rick Mather Architects

Project Value
£ 6.5m

Project Status
Completed 2002

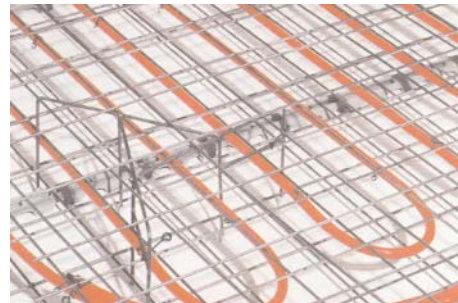
A new college building comprising a 220 seat theatre, seminar rooms, dining room and student accommodation. An innovative chilled slab system consists of plastic pipes spaced at regular intervals cast into the concrete slab. The mass of the exposed concrete can absorb large amounts of thermal energy and either absorb or radiate heat to rooms to maintain thermal stability.

Additional cooling to the theatre is provided via a displacement ventilation system when necessary.

The building as a whole is thermally coupled to the earth via water circulating through the foundation pilings, thereby minimising heating and cooling energy requirements.



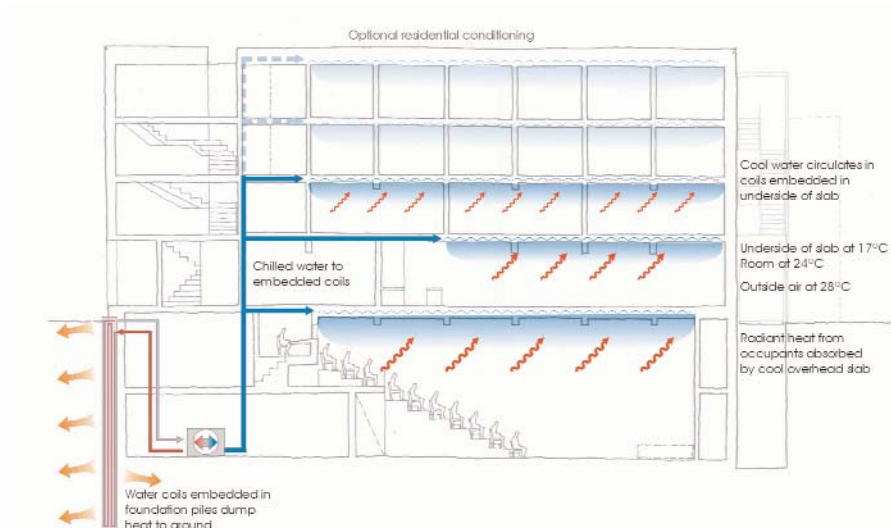
View of the new building across the Keble lawn (above)



Chilled slab construction: water pipes run through concrete floor slabs to heat or cool the exposed concrete structural mass of the building, insuring stable internal conditions (above)



Water pipes run through the piling reinforcement cages, turning the concrete foundation elements into heat exchangers for the building (above); Conditioning strategy (below)



atelier ten