The New Brewhouse, Malta: Environmental Control through Natural Ventilation, Daylighting and Shading

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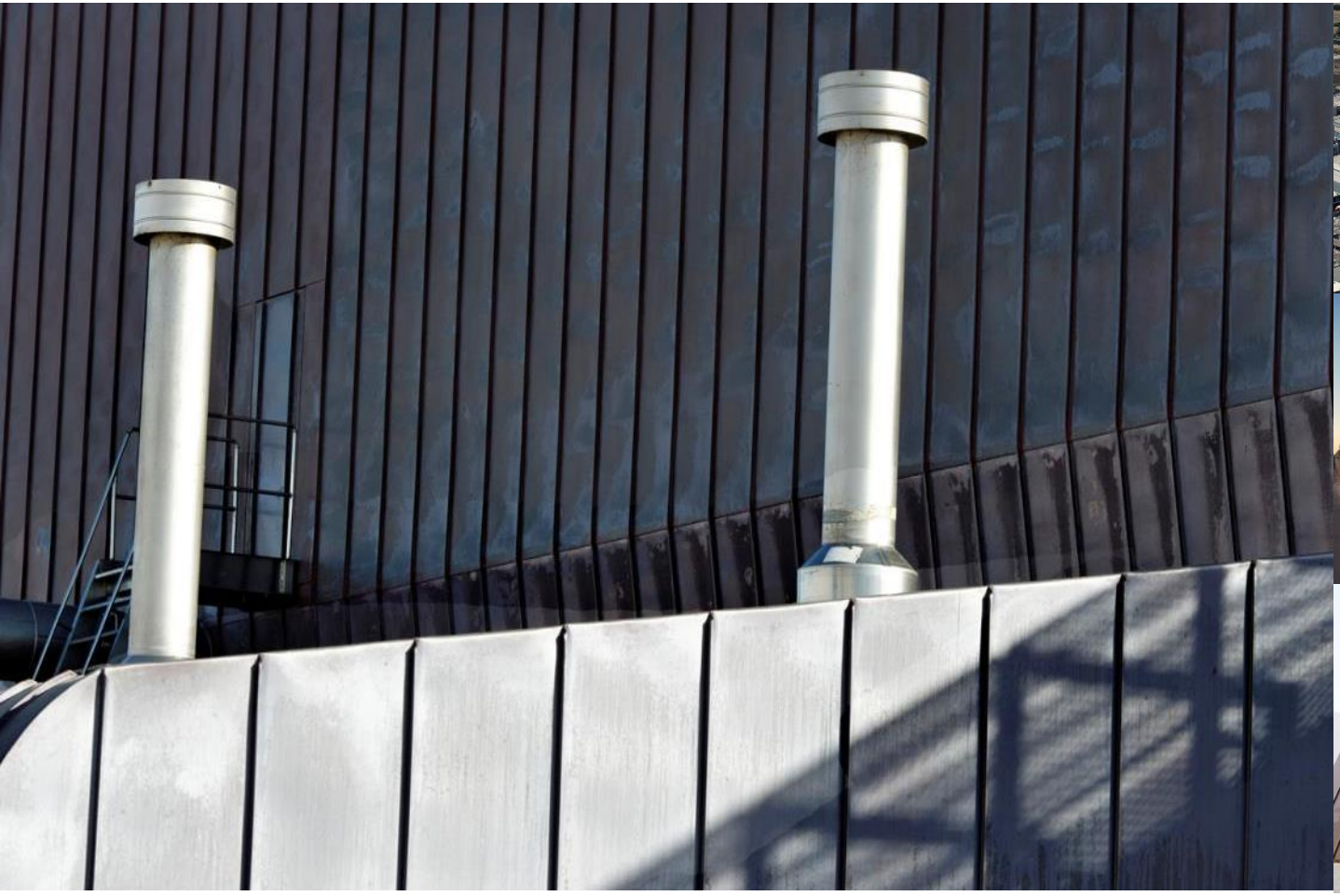
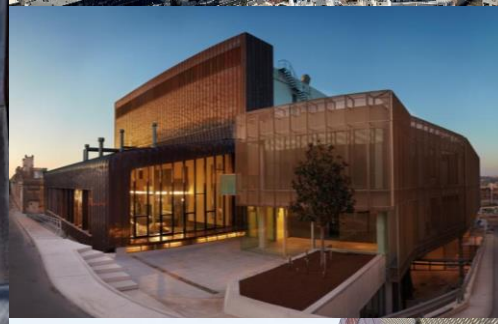
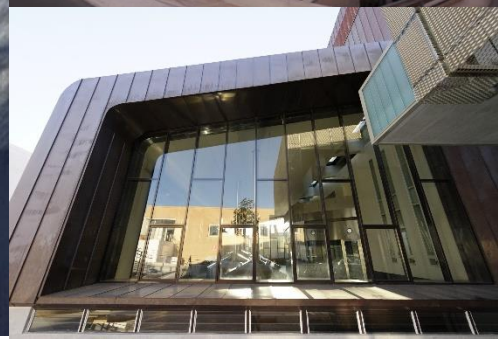
- Design approach for a new brewhouse and office building
- Effectiveness of a buoyancy-driven natural ventilation system
- Implications of passive environmental control measures in an office space

Environmental Control through Natural Ventilation, Daylighting and Shading

The New Brewhouse, Malta







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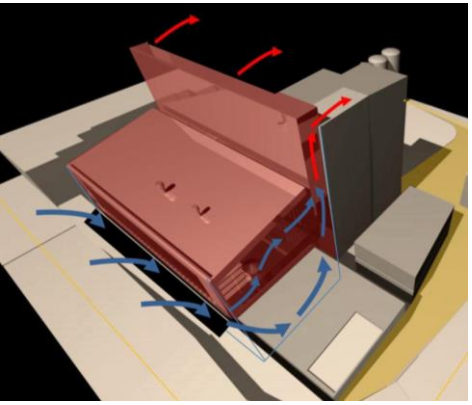

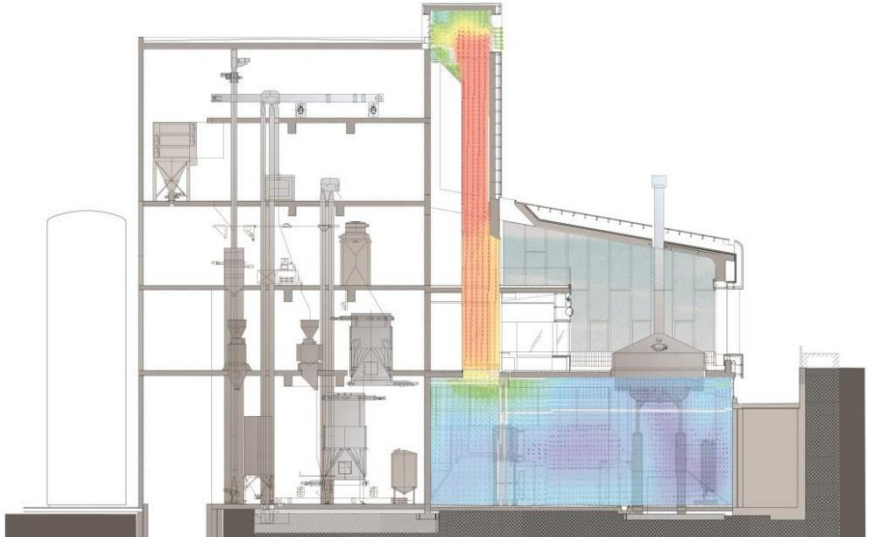

Simulation predicts an average of 11.4 ACH in the Lower Brewhall, reducing the temperature by 10.7 ^{o}C and an average of 7.4 ACH in the Upper Brewhall, reducing the internal temperature by 8.5 ^{o}C

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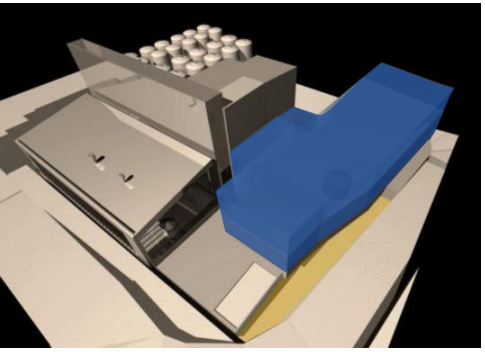
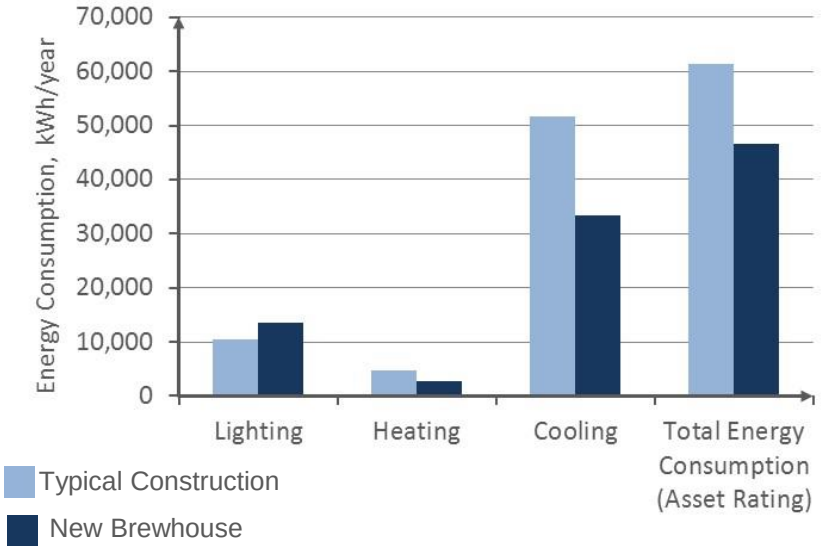
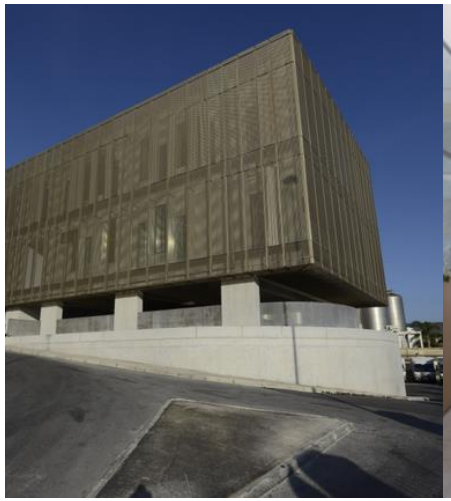




Compared to typical construction, the cooling load is predicted to be reduced by 36% with night ventilation and the heating load by 44%. This results in an overall potential reduction of 24%



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