



WELSH TRADITIONAL BUILDINGS FORUM

FFORWM ADEILADAU TRADDODIADOL CYMRU

Level 3 Award

Energy Efficiency Measures in Older
and Traditional Buildings

Dyfarniad Lefel 3

Mesurau Effeithlonrwydd Ynni ar
gyfer Adeiladau Hŷn a
Thraddodiadol

CANOLFAN TYWI



TYWI CENTRE



Age and History

Vernacular materials and methods of Construction

Architectural Evolution

Dependent upon:

- **Materials**
- **Location**
- **Transport**
- **Technology**
- **Fashion**

Vernacular

- Associated with a specific area
- Local materials
- Local craftsmanship
- Local design



Vernacular



Polite



Vernacular and Polite



Mediaeval



Llwyn Celin

Local materials:
Rubble masonry
Stone roof tiles
Oak roof and floor timbers
Lime mortar
Gravel aggregates

Mediaeval



Llwyn Celin

Traditional design:
High status hall
Rare

Tudor



Local materials:
Cruck timber frame
Thatched roof
Earth floor
Wattle and daub panels
limewash

Tudor



Traditional design:
Mid status farm
Unchanged from
mediaeval design

Tudor

Aldeburgh's Moot Hall



Local materials:
Oak timber frame
Clay tiled roof
Clay brick infill panels
Flint masonry
Lime mortar

Tudor

Aldeburgh's Moot Hall



Traditional design:
Mid/high status meeting hall
Common Tudor style
Brick panels of various designs
Leaded lights in timber frames

Tudor



Hampton Court Palace



Tudor



Hampton Court Palace

Jacobean



Abernodwydd

Local materials:

Oak timber frame

Straw thatched roof

Wattle and daub infill
panels

Masonry plinth

Lime mortar

Wattle and daub



Thatch



Clom or cob earth walling



Random Rubble Walling



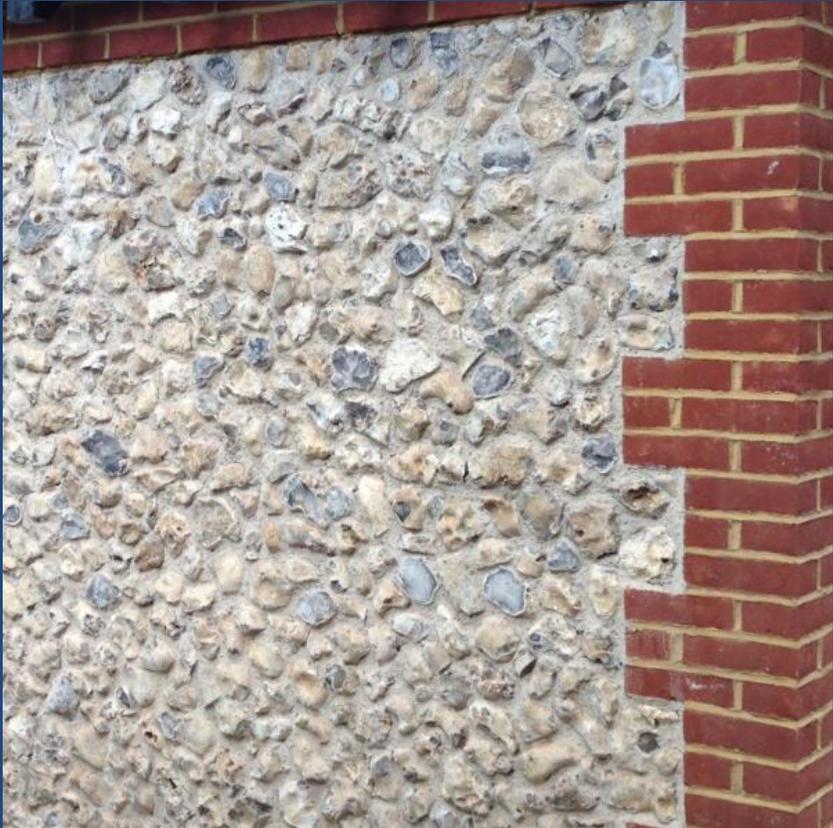
Masonry



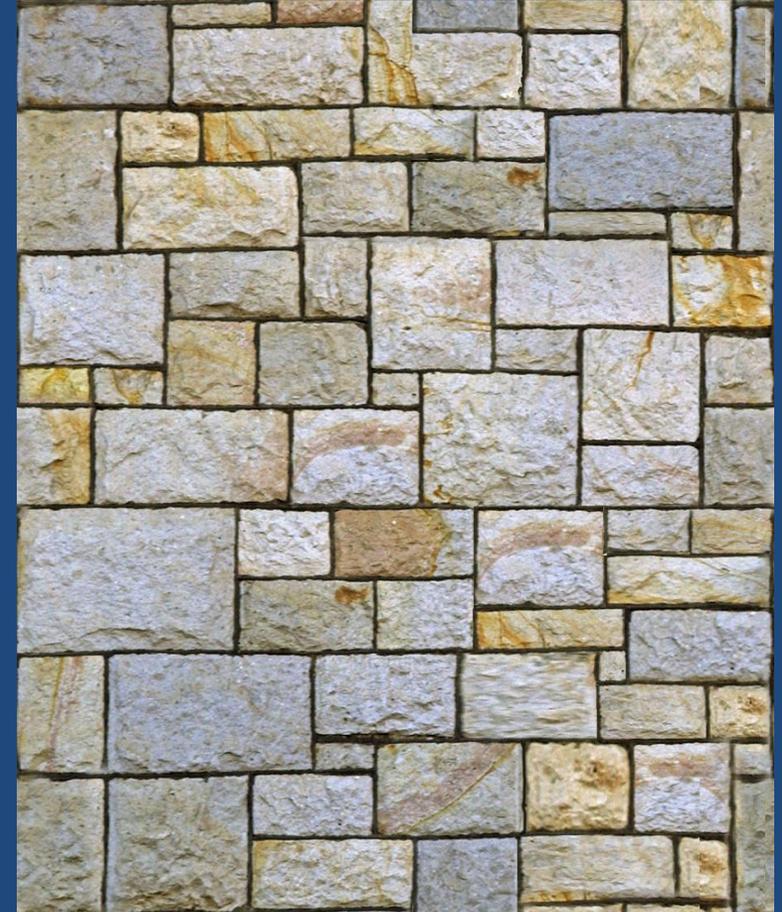
Masonry



Masonry



Masonry



Bricks



Brickwork



Brickwork



Brickwork



Roof structure



Cruck frame



Jointed Cruck frame

Roof structure



Roof structure



Roof covering



Roof covering



Roof covering



Windows



Windows



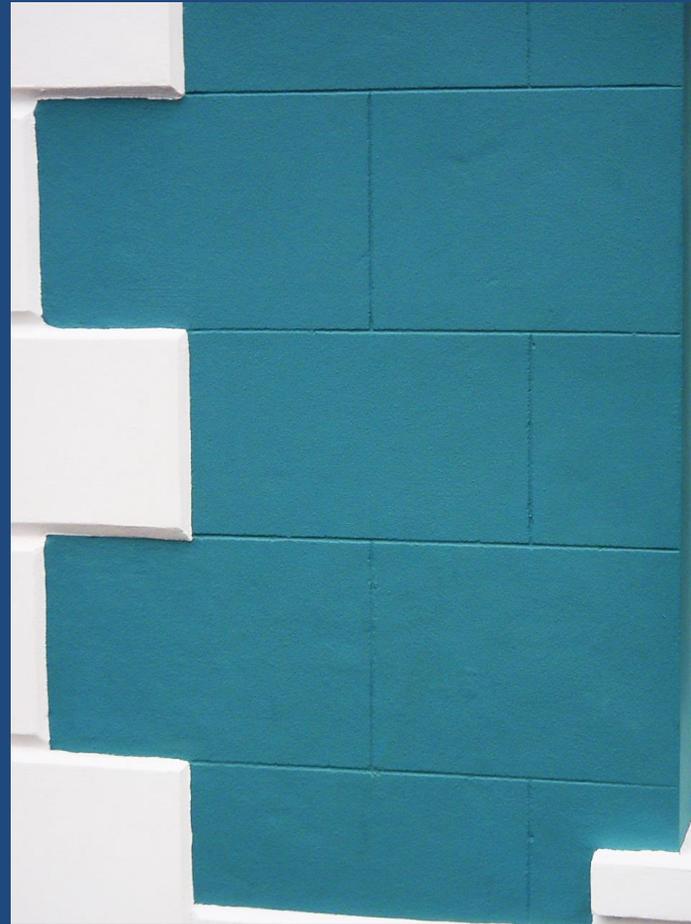
Windows



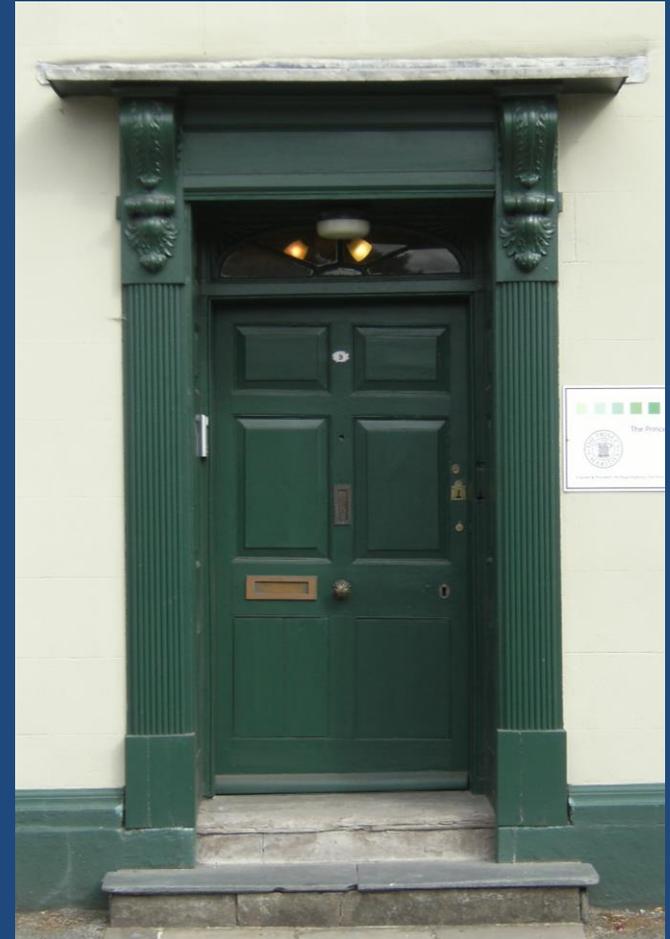
Glass



External finishes



Doors



What is important?

- **Nearly all the buildings are “solid wall” construction**
- **The majority of the materials are “breathable”**
- **Most materials were locally sourced**
- **Altering or adapting these buildings with the incorrect, incompatible materials can have severe consequences for the fabric itself, for the sustainability of the building and any energy efficiency measures**

WELSH TRADITIONAL BUILDINGS FORUM

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The Welsh Traditional Buildings Forum promotes the development of traditional building skills and sustainability issues relating to all old buildings across Wales.

Thank you to the CITB for funding the Heritage Construction in Wales project, and the Wales Cultural Recovery Fund for funding the final stages of the project. This funding enabled this information to be made available to all those wishing to learn about the appropriate energy efficiency measures for older and traditional buildings.

For further information contact:

<https://www.wtbf.co.uk/>

Mae Fforwm Adeiladau Traddodiadol Cymru yn hyrwyddo datblygiad sgiliau adeiladu traddodiadol a materion cynaliadwyedd sy'n ymwneud â phob hen adeilad ledled Cymru.

Diolch i'r CITB am ariannu'r prosiect Adeiladu Treftadaeth yng Nghymru, a Chronfa Adfer Diwylliannol Cymru am ariannu camau olaf y prosiect. Fe wnaeth yr arian hwn alluogi'r wybodaeth hon i fod ar gael i bawb sy'n dymuno dysgu am y mesurau effeithlonrwydd ynni priodol ar gyfer adeiladau hŷn a thraddodiadol.

Am wybodaeth bellach cysylltwch â:

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