# STBA

## SUSTAINABLE TRADITIONAL BUILDINGS ALLIANCE

Conference 2020

Projects update Part 2

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#### **Gap Analysis Update**





Building and Landscape Conservation

Performance and Energy Efficiency of Traditional Buildings: Gap Analysis Update 2020

Prepared for Historic England by Sustainable Traditional Buildings Alliance

Discovery, Innovation and Science in the Historic Environment



#### Original report 2012. New report covers:

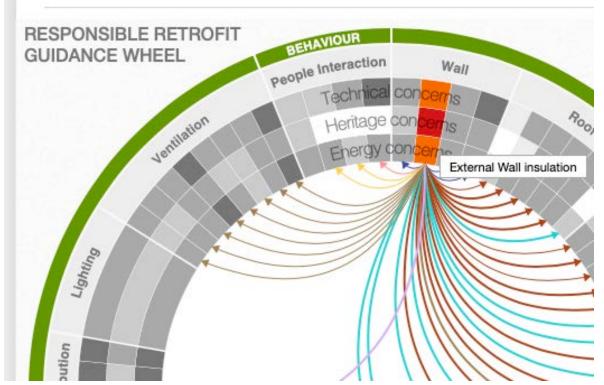
- Health
- Ventilation
- Comfort
- Significance
- Moisture
- Energy use
- Embodied energy
- Occupant interactions
- Repair & maintenance
- Costs of retrofit measures
- Material properties

Recommendations for further research

Freely available from our website

#### **Guidance Wheel Update**





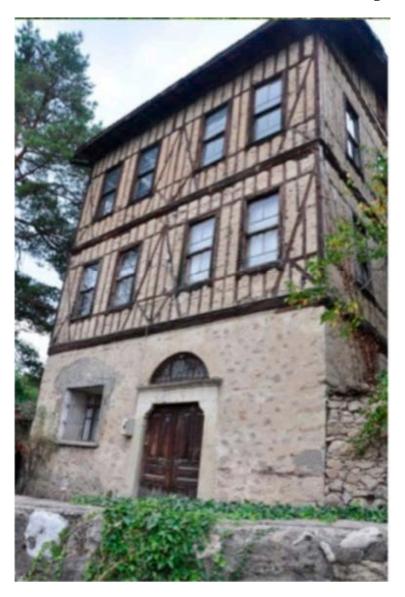
Original wheel 2015. Much research since then.

40 new references added (after filtration)

Some added measures – e.g. hybrid boilers

intended to be made available to all Trustmark registered contractors

#### PROT3CT – Turkey





Aim: using UK experience to develop an evidence-based methodology for cost-effective retrofit of trad bldgs in Turkey

**UCL** with METU

Himis structures

- stone base
- timber frame above

Ground floor originally not for occupation

Materials challenges

Costs challenges

Using STBA survey template

### **Heritage & Sustainability**



Every part of the house	U-value approach
Whole House minimum	Includes air tightness, addresses thermal bridging
Whole House plus	Integration of all services and occupant behaviour
Whole House advanced	Adds integration of heritage and community context

"What is whole house retrofit?" (4 pages) is available from the STBA website

#### **Heritage & Sustainability**



Whole House Advanced



Regeneration agenda

Provide local employment AND skills
Cleaning and Re-greening the environment
Energy efficiency, water, drainage, local facilities
Local energy networks & generation
Recycling, car sharing, garden sharing
Community-led decision-making

Eliminates the conflict between heritage and sustainability