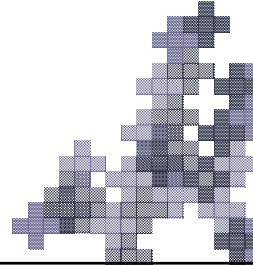


# Greening our common heritage

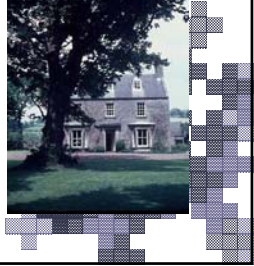
HEACS conference  
25 September 2007

Raymond Young  
Chair  
Architecture+DesignScotland

## How much do we really know?

- How much research on the impact on traditional buildings?
- What about inappropriate repair and cleaning?
- How far can we apply new techniques and materials to existing buildings?



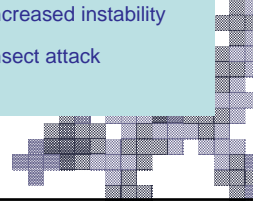
## Impact of climate change

### Climate change leading to increased

- temperature and moisture fluctuations
- flooding
- ground subsidence
- biological colonisation

### Impact on buildings

- accelerated decay of materials
- increased decay
- increased instability
- insect attack



## Impact of climate change

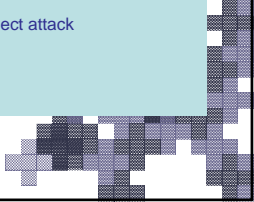
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- increased instability
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**= increased maintenance**

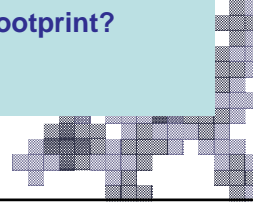


## Impact of climate change

### Climate change leading to increased

- temperature and moisture fluctuations
- Flooding
- ground subsidence
- biological colonisation

- How can the historic environment help reduce our carbon footprint?



Our common heritage?





### The common heritage challenge

- 34% of all houses were built pre 1945
  - 822800 houses
  - mostly traditional construction
- Most are owner-occupied
  - 71% of pre 1919 houses
  - 58% of houses built 1919 – 44
  - 499,000 (25% of all houses)
  - 215,000 in tenements(source SHCS 2002)
- 47,000 listed buildings



### The common heritage challenge

#### Social Housing

- **Scottish Housing Quality Standard**
  - All social landlords
  - By 2015
  - Includes energy efficiency
- **Other programmes**
  - Communities Scotland
  - Sust



### The common heritage challenge

#### Owner-occupiers

- People now believe that climate change is a reality
- Subjected to political and marketing campaigns to get them to change their behaviour
- Poor understanding of how traditional buildings work



## The common heritage challenge

### The questions

- Where do people turn for advice?
- What kind of maintenance support?
- Skills of the maintenance industry?
- How do I demonstrate my concern about climate change?



## What are we told to do?

- Insulate
- Install low energy light bulbs
- Switch off standbys
- Reduce drafts
- Turn down the thermostat by 1 degree
- Buy energy efficient white goods
- Offset?
- Technical fixes?



## Careful about technical fixes for our common heritage!

### For example

- Window and door replacement that cuts down 'draughts' and seals buildings
- Photovoltaic cells
- Maintenance free materials
- Individual wind turbines



## Swift wind turbines

- Electricity about ¼ energy use
- Average electricity consumption circa 4000kWh/year
- Manufacturer says output 1.5kW; provides **up to** 2000kWh/year
- Installation cost minimum £6000; saving £300/y



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**Micro-renewables or large scale?  
Just buy green energy?**

## What do we need to do?

### 1. A champion for our common heritage

- Give it status
- Argue for its retention and its contribution to reducing the impact of climate change
- Information and advice
- Mobilise the media



## What do we need to do?

### 2. Encourage use of Energy Performance Certificates

- as part of Single Survey  
(Home Information Packs)



BUT...

Domestic Energy Assessors and Licensed Home Inspectors need to be aware that **some improvements automatically generated by the Energy Performance Certificate (EPC) software can be inappropriate, harmful and sometimes even illegal if applied to traditional and historic homes.** While some of the energy improvement recommendations may be suitable for traditionally constructed buildings, it is essential that each is considered carefully before allowing them to remain as positive recommendations.

(English Heritage guidance)

## What do we need to do?

### 3. Financial (tax) incentives

- Level playing field on VAT
- Reduced VAT on 'green' materials



## What do we need to do?

### 4. Engage owners

- Develop network of support groups for owners – especially those in tenements
- Similar to New Town Residents Association
- e.g. Eco Renovation

