

Reuse and Retrofit!

I. What does retrofit really mean?



1845

Mass production of glass

More affordable

Better quality and bigger panes

One pane replacing six in one sash

Keep the original window

Removing astragals

Different aesthetics



**1956
1965**

Cleaner energy

Health and environmental concerns

New heating systems and fitouts

Preserve the original building and parts of the fitouts

New heating performance

Different aesthetics



HISTORIC
ENVIRONMENT
SCOTLAND

ÀRAINNEACHD
EACHDRAIDHEIL
ALBA



Retrofit is the intentional modification of an existing structure, done by introducing new technology to address a present need or change, while **preserving** the structure's significance and integrity.



In essence, Retrofit seeks to improve performance or function of structure, but it often involves a degree of **alteration** to the original fabric.

II. Retrofit Today

01

NET ZERO TARGET BY 2050



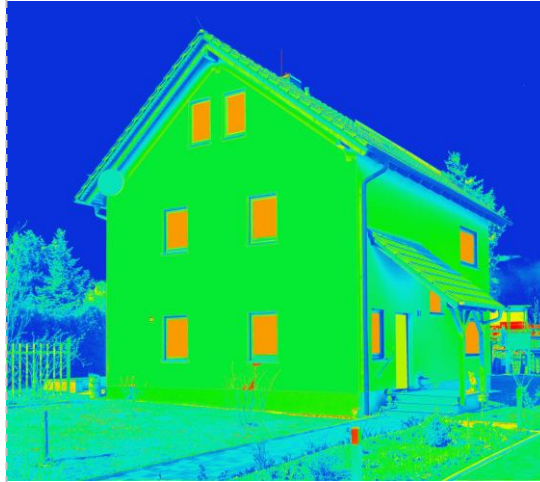
POLICY:

The climate change committee in the UK suggests that the building sector is responsible for about 17% of the UK's total greenhouse gas emissions

17%

02

IMPROVE BUILDINGS PERFORMANCE



ENERGY:

According to the Imperial college London, the UK's homes are among the least energy efficient in Europe.

Heat loss up to three times higher than homes in the continent

X3

03

REDUCE ENERGY BILLS



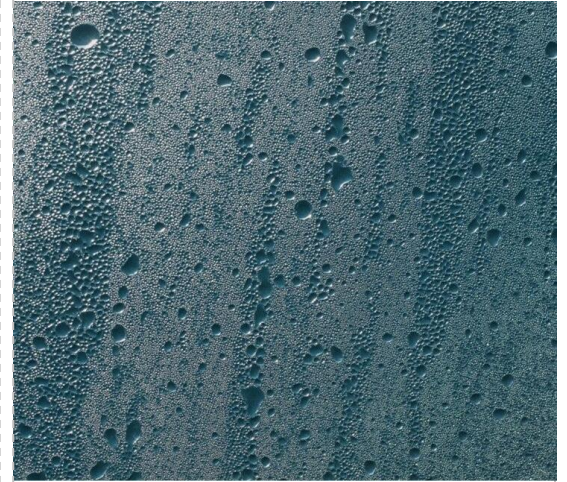
ECONOMY:

According to the office of national statistics the UK household energy bills have gone up to about 69% between 2017 and 2022

69%

04

IMPROVE INDOOR ENVIRONMENT



HEALTH:

The English housing survey highlighted that about 3.2 million households struggle to keep warm in winter

In 2024 the UK Health Security Agency reported 1311 heat - associated deaths during several heat episodes in summer

3.2M

III. So, what about reuse?



According to the UK Green Building Council, Reuse means that a product, component, or material can be used more than once for the same or a different purpose without being broken down into raw materials.

IV. The dialect between reuse and retrofit?



Retrofitting traditional buildings will extend their lifespan and adapting them to contemporary lifestyle and the needs of today.

From a macro perspective, there is an integration between retrofit and reuse.



From a micro perspective, this correlation is not always a straightforward one.

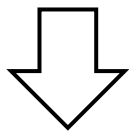
V. Retrofit Centre at HES!

01

INFLUENCE



- WORKSHOPS
- PUBLICATIONS AND GUIDANCES
- NETWORKING AND PARTNERSHIPS



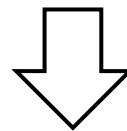
Create a Retrofit Heritage Science Community

02

SKILLS



- SCIENCE EQUIPMENT TRAINING
- LEVEL 3 COURSE ON TRADITIONAL BUILDINGS RETROFIT
- CPDs



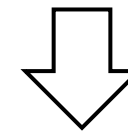
Ensure that this community has the capacity and capability to meet user demand

03

RESEARCH



- PROVIDE ACCESS TO SCIENCE EQUIPMENT
- COLLECT AND SHARE DATA
- DO RESEARCH



Ensure the Retrofit Heritage Science Data and Equipment are accessible to users

THANK YOU