



Low Impact Communities in Britain

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Lama Foundation, New Mexico, USA



Lammas, Wales



Dignity Village,
Portland, USA

An aerial photograph of a construction site. A large, rectangular concrete structure is under construction, with a network of rebar visible on its surface. The surrounding area is a mix of dirt and some vegetation. The image is semi-transparent, allowing the text to be overlaid on it.

Defining low impact housing

- An eco-building minimises resource use (in construction and life-cycle) while also providing a comfortable environment in which to live
- A good eco-building balances our need for comfort with ecological impact. An extremely ecological house that provides no comfort does not satisfy our human need for a home
- Low impact housing is a subset of eco-housing, a holistic approach to housing which includes all aspects of daily life – food, resource and energy use, transport, livelihood and reduced consumption

Communities

- Autonomy and self reliance
- Mixed goals but often include becoming more socially, economically and ecologically sustainable
- Share values
- Self-build
- Collectively
- Care for others
- Changes relationships – gender equality?
- Low-cost
- Requires change of lifestyle/ income
- Minimal resource use (in construction and lifecycle)
- Low visual impact
- Built from local, recycled or natural materials
- Small scale

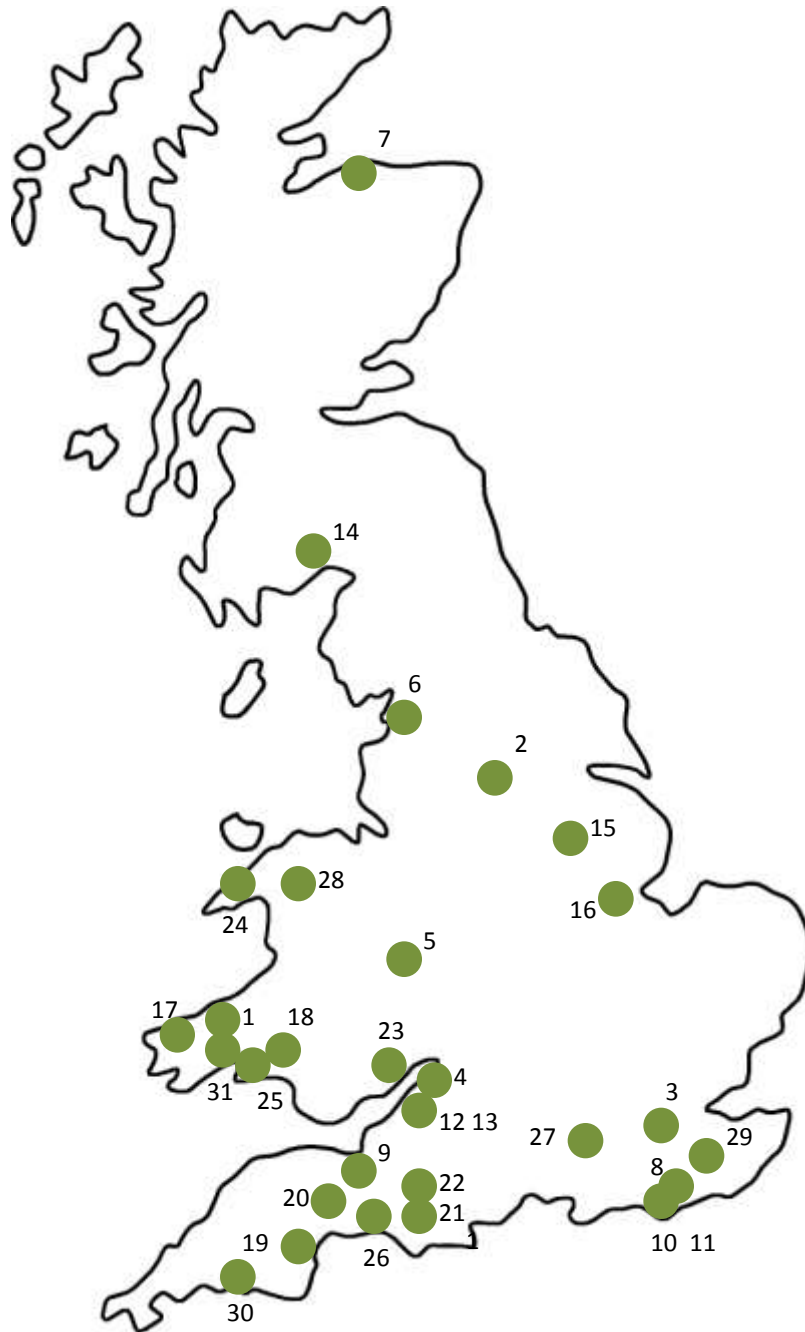


Lammas, Wales



Tinkers Bubble, Devon

Low Impact Communities



1. Lammas
2. Low Impact Living Affordable Community (LILAC)
3. BedZed
4. Springhill Co-housing
5. Karuna
6. Lancaster Co-housing
7. Findhorn
8. The Community Project (Laughton)
9. Great Bow Yard
10. Dryad Housing Cooperative
11. Hedgehog
12. The Yards
13. Ashley Vale
14. Green Hill
15. Hill Holt Wood
16. Hockerton Housing Project
17. Brithdir Mawr and Tir Ysbrydol
18. Tipi Valley
19. Landmatters
20. Steward Community Woodland
21. Tinkers Bubble
22. Kings Hill Collective
23. Coed Hills Community Art Space
24. Menter y Felin Uchaf
25. Woodhouse Wood
26. Fivepenny Farm
27. Northdown Orchard
28. Cae Mabon
29. Quicken Wood
30. Keveral Farm
31. Down to Earth

Successful components of low cost eco-housing

climate appropriate design

modular, can extend later

open plan

built collectively

cheap land

small size

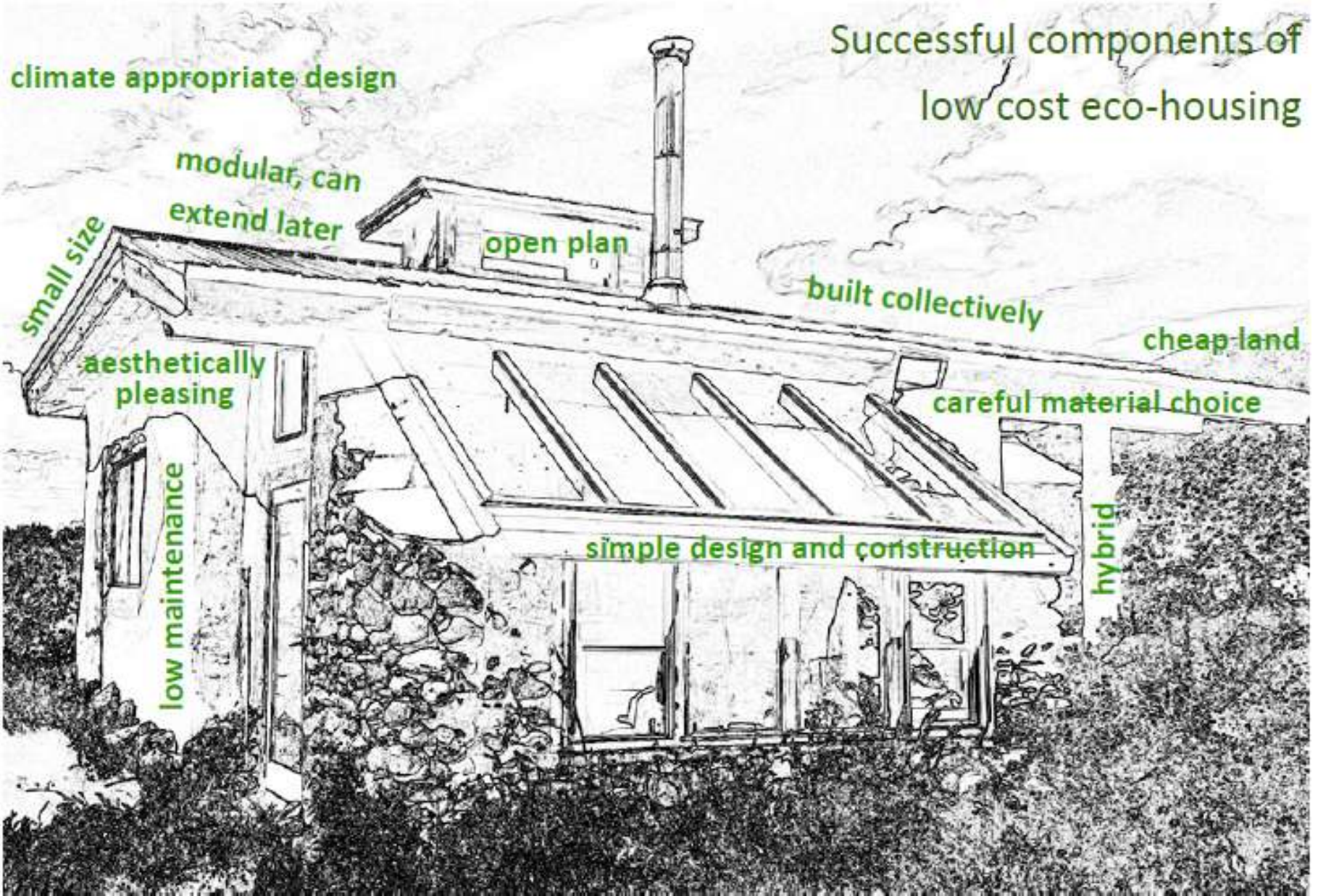
aesthetically pleasing

careful material choice

low maintenance

simple design and construction

hybrid



Building in Britain



1. Political

Planning, government support, regulations

2. Economic

Costs (land, materials, labour)
availability of land

3. Cultural

Aesthetics, behaviour, knowledge,
community agreement

Zero Carbon Homes



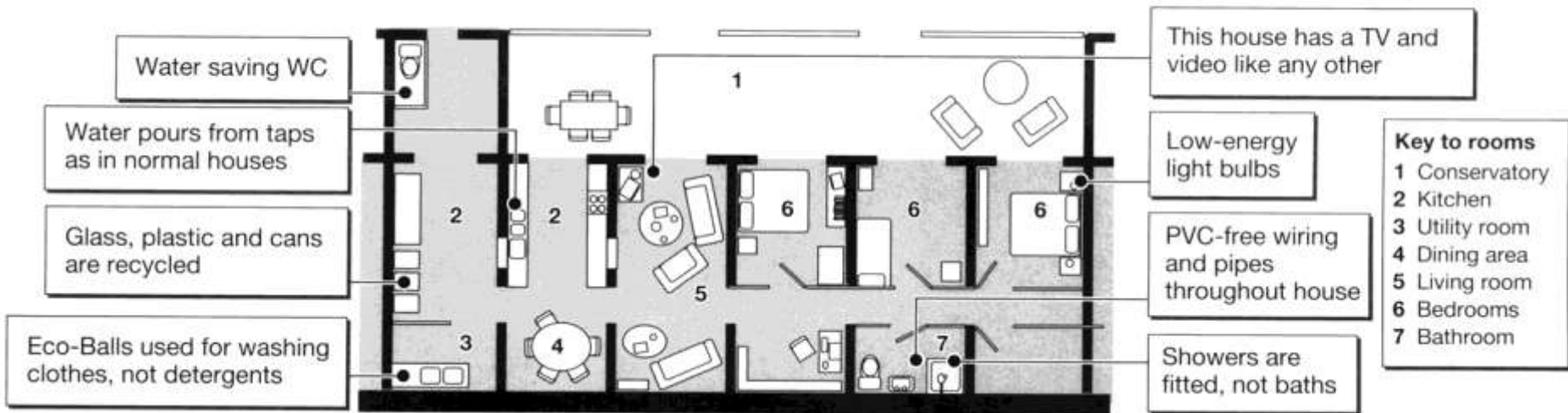
Political barriers and solutions

- **Planning implementation**
 - Need collective lobbying
 - Use special exception
- **Building regulations**
 - Work with building control
 - Abandon regulation
 - Extend regulation
- **Government low carbon initiatives**
 - Holistic consideration of building



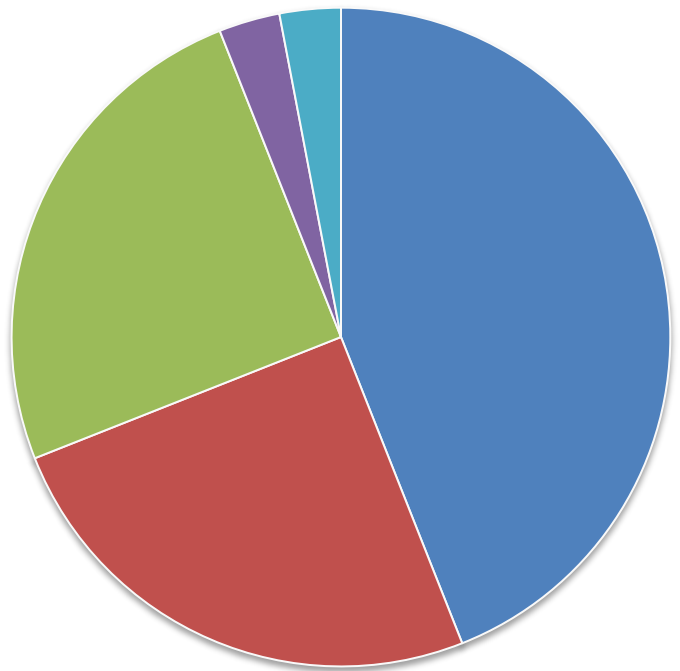
Hockerton Housing Project, Nottinghamshire

The interior



Economic barriers and solutions

Indicative build cost components



- **Labour**
 - Self-build
 - Collective labour
- **Materials**
 - Locally available
 - Natural?
- **Land**
 - Marginal places
 - Remove land for market mechanism
- **Other costs**
 - Income ratios
 - Protection for perpetuity
 - Diverse fund sources
 - Lifecycle costs



Greenhills, Scotland





Papercrete house, Crestone



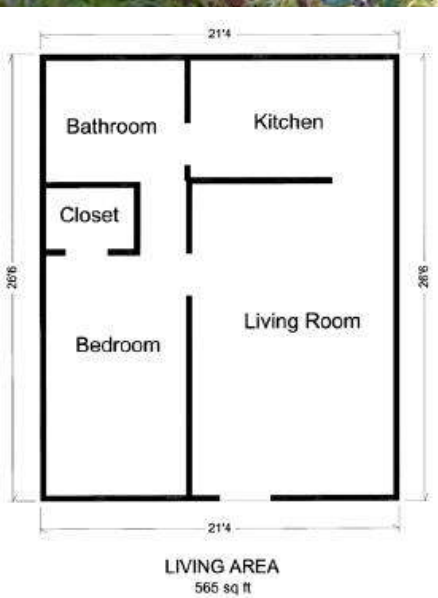
Modcell straw bale house, Bath

Cultural barriers and solutions

- **Knowledge**
 - Participatory design – whose voices being included in design and whose are missing?
 - Practical education
- **Aesthetics and design**
 - Suitable for desires and needs
- **Community agreement**
 - Working together
- **Behaviour**
 - Behaviour change through peer pressure



Kailash Ecovillage,
Portland, USA



Collective building at Dignity Village,
Portland, USA

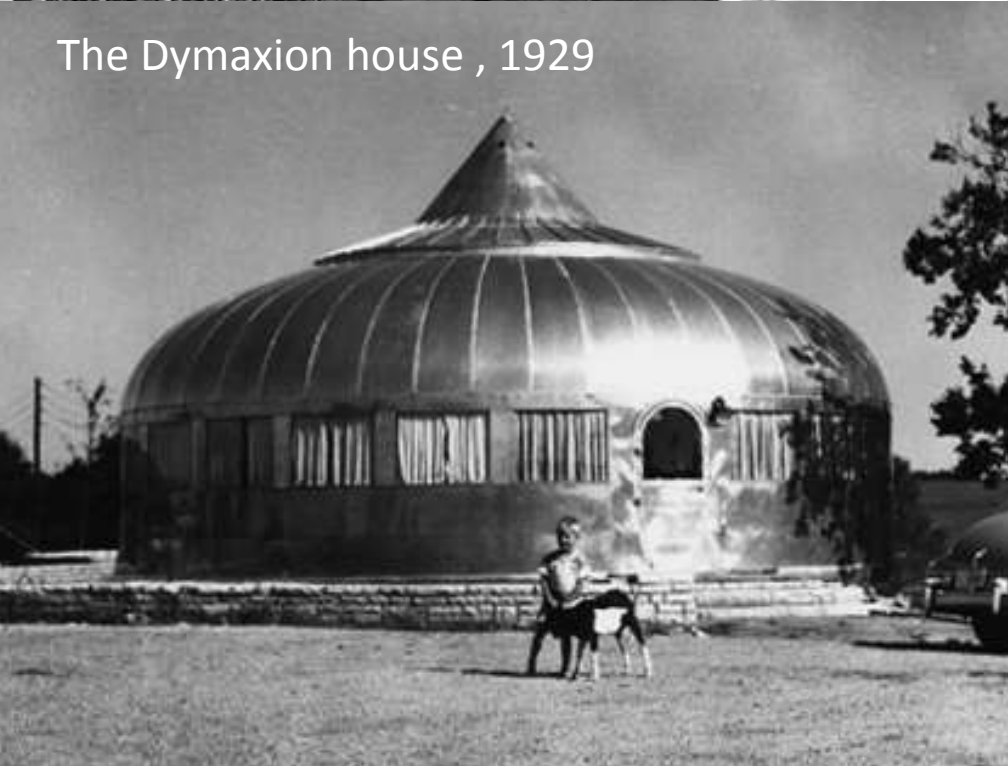


What works?

- Hybrid materials or straw bale
- Mutual housing ownership or rental
- Self/ collectively built
- Pioneer/ risk taker driving project
- Share key infrastructure/ co-housing organisational structure
- Built on 'marginal' land
- Small, open plan design
- Use locally available materials
- Low tech
- Plan long-term maintenance
- Strong community agreements
- Good simple passive design



Building a zome in Spain



The Dymaxion house , 1929

Other considerations

- Are we future proofing our housing for climate change?
- Are we doing enough to (eco-)retrofit existing houses?
- How does gender change how we might build eco-houses?
- Have we learnt lessons from the past?

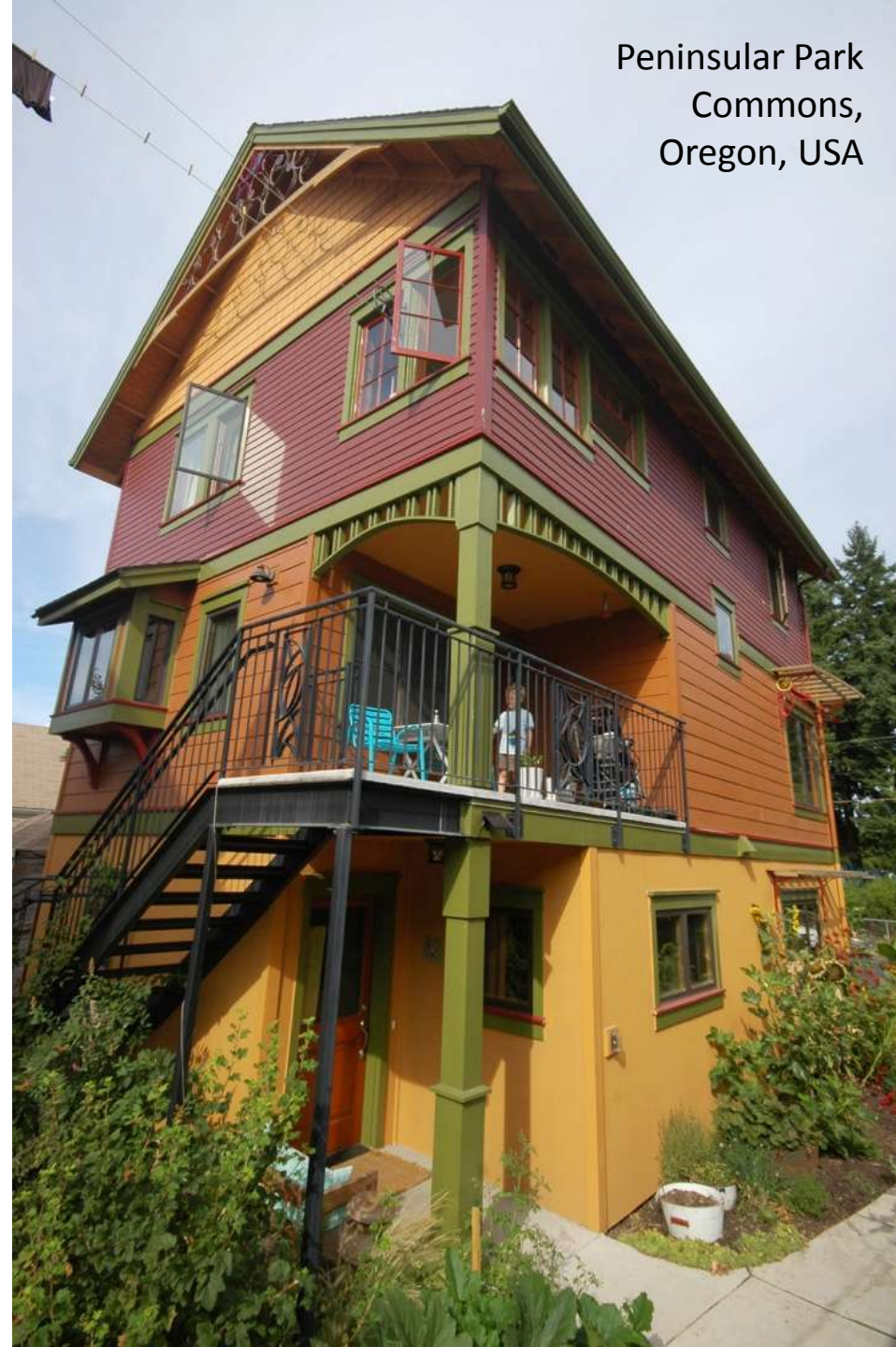
Encouraging more

1. Public accessible examples
2. Myth busting
3. Special exception in planning
4. Experimental build zones
5. Avoid reliance on technology
6. Include community
7. Skills training
8. Teach ecological design
9. Re-skill construction professionals
10. Financial incentives
11. Fund research into long-term testing
12. Open accounting and partnership approaches



Concluding thoughts

- Combined political, economic and cultural barriers to be overcome: cultural as important as economic
- Involves shifts towards collective approaches
- Plenty of actually existing examples of low cost low impact housing
- Work yet to be done: national lobbying, learning from mistakes





Questions ...

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For further information on this research see

Green Building blog:

<http://naturalbuild.wordpress.com>