


City Centre Sustainable Housing Design Competition

Workshop 3: Sustainable Housing Case Studies

Date: 3 April 2024
Time: 16:00-18:00
Venue: Online hosted by the CIB

Presenter: Jeremy Gibberd



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Structure

- What is the most sustainable housing design?
- Case studies

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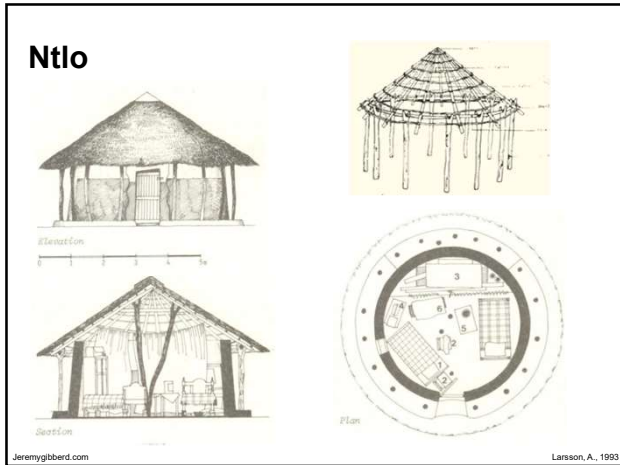
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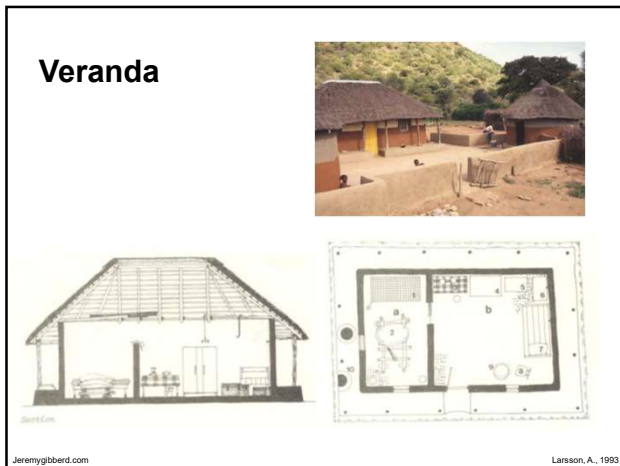
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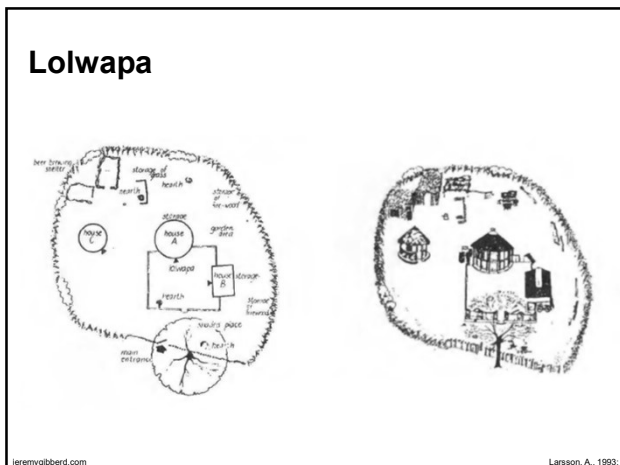
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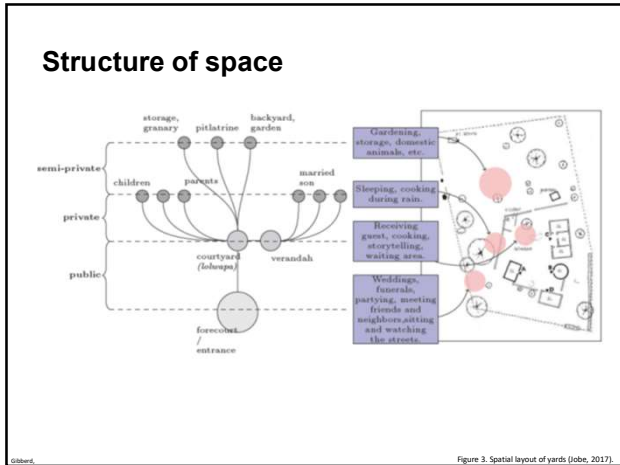
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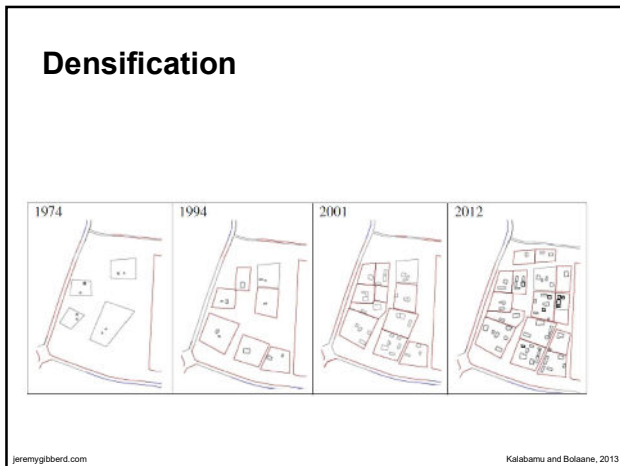
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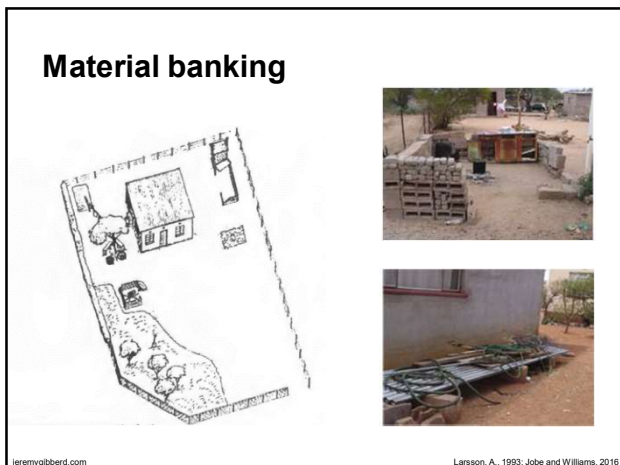
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Gibber, Figure 3. Spatial layout of yards (Jobe, 2017). 10



Jeremy Gibberd.com, Kalabamu and Boleane, 2013. 11



Jeremy Gibberd.com, Larsson, A., 1993, Jobe and Williams, 2016. 12

Informal and Modular Building Systems

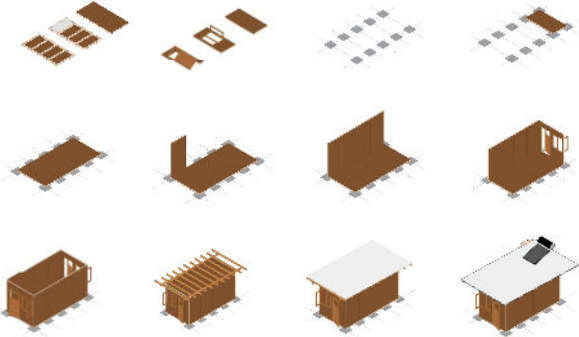


Jeremygibberd.com

Phillipi, Gaborone

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Building in a Box Unit (BIBU)



Jeremygibberd.com

BIBU, Gauge

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Tiny houses



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Pod itadla

15

Tiny houses



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Cabinville

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Alexandra: Alternative Housing Models



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New Business Models

Digital ecosystems to create new enterprises, improved efficiency and increased affordability and access to services:

- Accommodation, energy, food, water, ICT, academic support, mobility services provided by circular entrepreneurs
- Improved access and a affordably through smart metering, tokenisation, crowd funding, work exchanges.

Jeremygibberd.com

Gibberd, Fedgroup | Sun Exchange, Local Clean Energy

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Modular Adaptable Mixed-use Buildings: Housing, Small Business and Social Enterprises

The image shows a 3D architectural rendering of a modular building with colorful sections (blue, yellow, red, green). Below it are several 2D floor plans of different units. To the right is a site plan showing the building's placement within a neighborhood grid.

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Building Services

A vertical cross-section of a building showing various service components. A legend on the right lists the components:

1. Rainwater gutter
2. Solar water heater
3. PV panels
4. Hot water cylinder
5. Hot water, electricity, grey/rainwater, potable water supply and meters
6. Apartment
7. PV inverter, battery and controls
8. Incoming potable water mains
9. Rain/grey water storage

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Onsite Service Enterprises (OSE)

Mixed-use passive buildings with

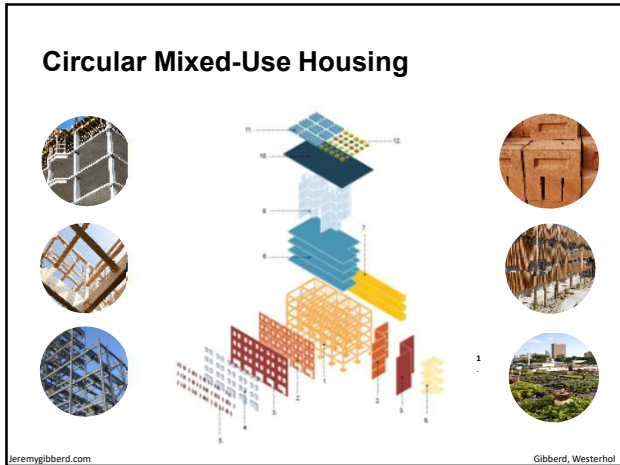
- Renewable energy, hot water, recycling, mobility, childcare, ICT, food onsite enterprises (OSEs)

OSEs:

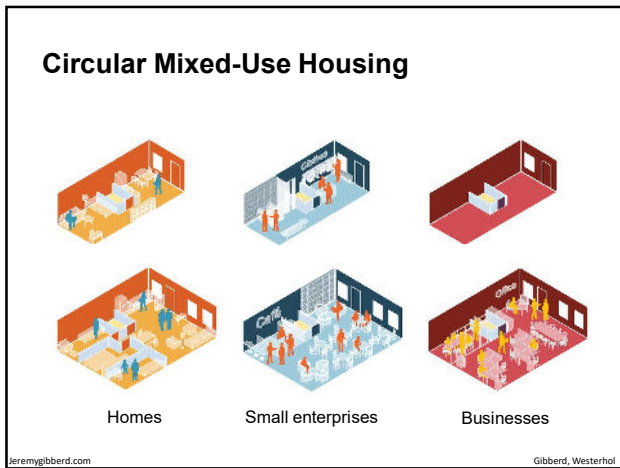
- Optimise performance of systems, reduce waste, reduce capital and operating costs (potential for net zero)
- Enable diversified resilient economy, with a variety of symbiotic enterprises which create local jobs

A collage of images including solar panels, a farm, a building, and various community activities. At the bottom, there are several circular icons representing different types of enterprises and a circular diagram.

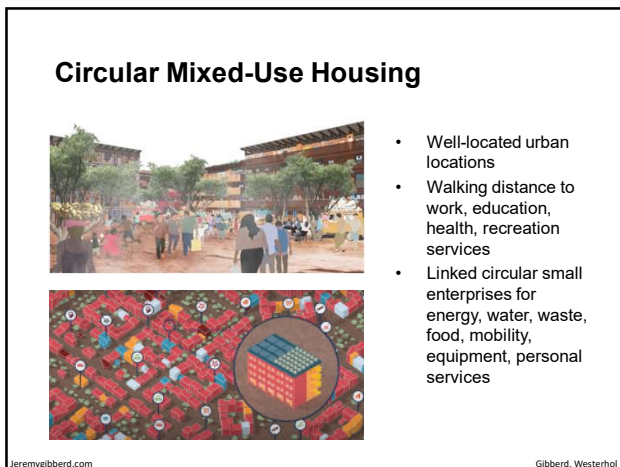
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Thank you, Questions?



Jeremy Gibberd
Coordinator Smart and Sustainable Built Environments - W118 CIB





Jeremy Gibberd
jeremygibberd.com | <https://www.linkedin.com/in/jeremygibberd/>
