V1

LIVING BLOCKS

The open source recipe to make bio-receptive blocks

Lawrence Parent

OtherToday

ABOUT

Living blocks is an open source recipe designed to produce blocks that can support plant and insect life. Using inspiration from the porous structure of rare limestone formations, living blocks uses waste fruit, vegetable and aggregates to produce a similar porous structure in a cement based alternative.

Lawrence Parent

Project: Living Blocks
Profession: Designer
Location Brighton
Studio: Other Today
Website: lawrenceparent.com

Natural Tufa

Rare limestone formation

Hypertufa

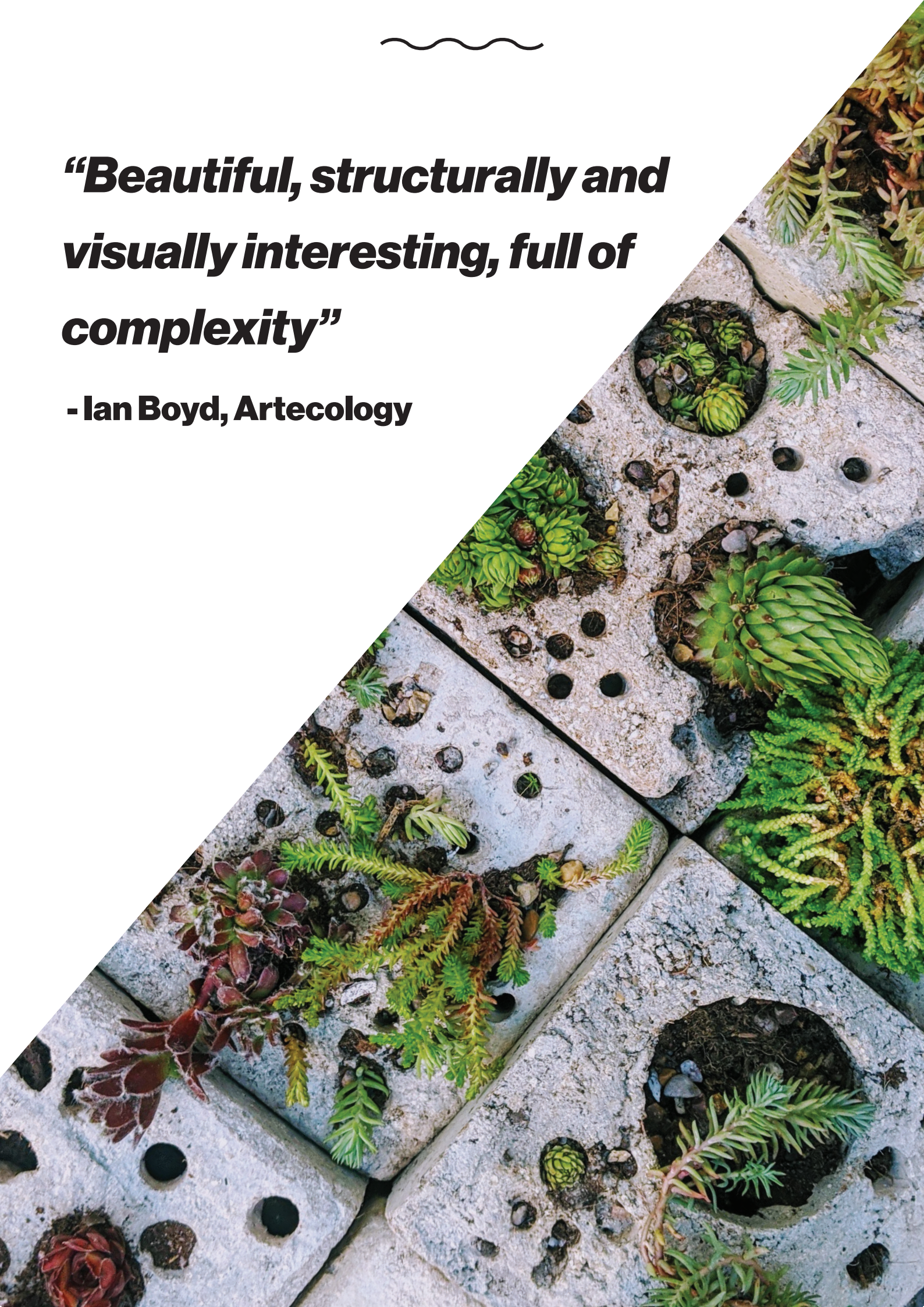
Cement based porous material

Living Blocks

Hypertufa structured like natural tufa

"Beautiful, structurally and visually interesting, full of complexity"

- Ian Boyd, Artecology




REGENCY SQUARE.


REGENCY SQUARE.


Real

YOU WILL NEED

Making your own living block is very straightforward. The ingredients listed on the right are a guide and many of the aggregates used to make the concrete can be substituted for recycled or re-used materials.

INGREDIENTS

- 1.5 litre perlite or vermiculite
- 1.5 litre coco coir
- 1 litre cement
- 1 litre water
- Mix of tomatoes or other vegetables (ideally out of date or would otherwise be thrown out)
- Tray of ice cubes

EQUIPMENT

- Bucket
- Mould*
- Drill + mixer
- Measuring Jug
- Release agent (Vaseline)

* Mouldplans available at https://wikifactory.com/@lawrencepar-ent97/living-blocks

PROCESS

Full instructions is available at www.wikifactory.com/+othertodaystudio/living-blocks

1. Mix coco coir, perlite, and cement with 500ml water. Continue mixing and adding water until mix is like cookie dough.

2. Scoop mixture into mould and tamp down, add tomatoes ice cubes and balloons. Keep repeating until mould is full. Consider the placement of tomatoes for easier access once the block has cured.

3. Leave mould to set for 24 hours. Remove from mould and place in water for a further 24 hours. Remove from water. Using a spoon, scoop tomatoes out from block. Ocassioanlly a drill will be needed to get the deeper tomatoes out Leave for a further week.

4. Plant alpines in blocks using appropriate soil mix. Leave blocks for a further 2 - 3 weeks whilst the roots establish.

PLANTS

The blocks can be managed as little or as much as you would like. They are excellent planters for alpine plants as well as ideal habitats for all kinds of invertebrates.

OPTION 1 - Rewilding
Leave the blocks for nature. The 3D structure and texture you have made is bio-receptive and easily colonisable, acting as landing pads for aerial plankton and substrates for seeds to germinate in. Depending on your chosen location insects plants and moss should grow from it.

OPTION 2 - Alpine Pollinators
Populate blocks with hardy alpine plants. See considerations below to find out how to decide on suitable plants to fill your blocks with.

CONSIDERATIONS

When deciding species to plant in living blocks it is recommended to use suitable species that are:

- Easy to establish / young seedlings
- Appropriate to the locality (including common species);
- Suited to the substrate
- Able to persist in the harsh environments (e.g., drought tolerant, shallow substrate, able to seed easily)
- Able to form resilient and permanent cover
- Low growing – generally up to 30cm

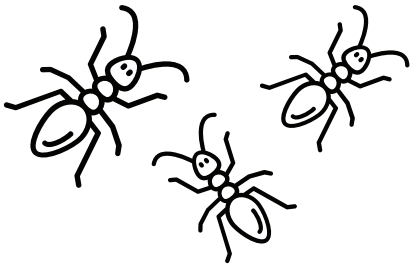
More information on suitable can be found at https://www.rhs.org.uk/plants

WHY LIVING BLOCKS?

1. BIODIVERSITY LOSS

20%↓

Average native species lost since 1990



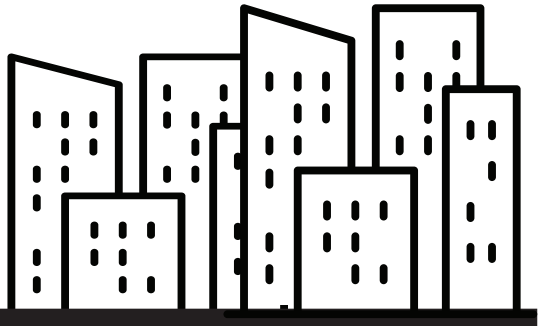
Living blocks are all about biodiversity. Building one block can provide shelter for hundreds of invertebrates species. They can also host lots of alpine pollinating plants providing food (nectar) for bees and butterflies.

2. URBANISATION

60%

Land projected to become urban by 2030 is yet to be built

Raising awareness through designed solutions to build with nature rather than against it needs to be happening now.



3. BIOPHILIA

Improved connection to nature can have effects of up to:

8%↑

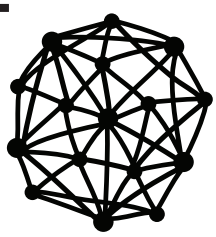
Increase in well-being

13%↑

Increase in creativity

Research shows meaningful interaction can help to reduce stress, increase we productivity and creativity. Making a living block is one example of a meaningful interaction with nature.

4. DISTRIBUTED RECIPE



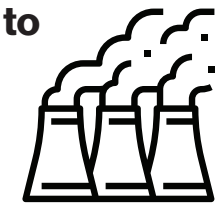
Built by anyone, anywhere!

Empowers people from all backgrounds by providing an easy to follow recipe to create beautiful bio-receptive blocks.

Share your creations, modifications and advice on the wikifactory, and on social media using #livingblocks

5. AIR POLLUTION

7 MILLION DEATHS PER YEAR due to exposure to air pollution



Plants can bring down co2 levels in cities as well as filter out some of the bad chemicals in the air, by building living blocks you are providing new spaces for plants to do this.

Sources on next page.

Share you creations on social media using the hashtag:

#LIVINGBLOCKS

#GREENINGTHEGREY

#BIORECEPTIVE

SOURCES

1. Biodiversity Loss

https://www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report/

https://www.rspb.org.uk/birds-and-wildlife/advice/gardening-for-wildlife/insects-and-minibeasts/

2. Urbanisation

https://www.un.org/en/ecosoc/integration/pdf/fact_sheet.pdf

3. Biophilia

https://www.oliverheath.com/biophilic-design-connecting-nature-improve-health-well/

5. Air Pollution

https://www.who.int/airpollution/infographics/en/