INSTITUTE FOR
LIVING MATERIALS

Living Architecture for Planet and People

THE LIVING POT™

GROW FOOD. GROW SOIL. GROW SHELTER.

ONE LIVING SYSTEM.
FOUR HARVESTS.
ZERO WASTE.

MUSHROOMS
Nutritious food throughout the cycle.

HUMUS
Living fertility from organic waste.

PLANTS
Thriving growth from rich, living soil.

BUILDING MATERIALS
Mycelium composite blocks for a better future.

TRANSFORM WASTE INTO LIFE.
BUILD A REGENERATIVE FUTURE.

RECYCLED PLASTIC SHELL • MYCELIUM COMPOSITE CORE • REGENERATIVE BY DESIGN

THE LIVING POT™

A Distributed System for Growing Food, Soil, and Shelter

By the Institute for Living Materials

A New Generation of Living Infrastructure

Modern systems are linear.

Resources are extracted, manufactured into products, consumed, and discarded.

The Living Pot™ was designed according to a different principle.

In nature, there is no waste.

Everything becomes food for something else.

The Living Pot™ is a regenerative cultivation system that transforms organic waste into mushrooms, fertile humus, thriving plants, and eventually modular building materials suitable for use in sustainable construction and living architecture.

Rather than treating these outputs as separate industries, the Living Pot™ integrates them into a single biological process.

One system.

Four harvests.

Zero waste.

How It Works

At its core, the Living Pot™ consists of three integrated layers:

The Plant Chamber

A removable central chamber supports the growth of seedlings, trees, shrubs, herbs, and other plants.

This chamber allows young plants to establish healthy root systems while remaining partially isolated from the active decomposition occurring around them.

Once the plant has matured sufficiently, the chamber can be removed and the plant transplanted elsewhere.

The cavity left behind becomes a structural feature of the final building block.

The Mycelium Ring

Surrounding the plant chamber is a living ring of fungal substrate composed of locally available organic waste materials such as:

- Spent brewery grain
- Used coffee grounds
- Wood chips
- Sawdust

- Straw
- Leaves
- Cardboard
- Agricultural byproducts
- Livestock manure

Selected mushroom species colonize this material, producing edible mushrooms while simultaneously transforming waste into fertile humus.

Over time, fungal networks and plant roots cooperate to create a dense biological composite rich in organic matter and living fertility.

The Recycled Plastic Exoskeleton

The entire system is enclosed within a durable hexagonal shell constructed from recycled plastic.

This component serves multiple functions:

- Diverts plastic waste from landfills
- Provides structural reinforcement
- Maintains dimensional stability during cultivation
- Creates attachment points for modular construction

- Protects the biological composite from mechanical damage
- Allows for breathable mesh sections that support fungal growth and fruiting

Rather than viewing plastic as a disposable material, the Living Pot™ transforms discarded plastic into a long-term component of regenerative infrastructure.

Four Harvests From One System

Harvest One: Mushrooms

The Living Pot™ produces edible mushrooms while the system develops.

Food is generated as a natural consequence of the cultivation process.

Harvest Two: Humus

The fungal network converts discarded organic matter into rich humus and biologically active soil.

Waste becomes fertility.

Harvest Three: Plants

Trees, herbs, flowers, and nursery stock benefit from continuous nutrient cycling, improved moisture retention, and fungal symbiosis.

The Living Pot™ can function as a nursery container, producing healthy plants while simultaneously manufacturing future building materials.

Harvest Four: Living Blocks

After the plant has been removed and transplanted, the remaining biological composite can be cured and dried within its recycled-plastic shell.

The result is a durable hexagonal Living Block™ suitable for use in modular construction systems.

HexaGrow™ Living Blocks

Each Living Pot™ is designed around a hexagonal geometry.

This allows cured blocks to tessellate naturally into larger structures.

Applications may include:

- Garden walls
- Retaining structures

- Acoustic barriers
- Educational installations
- Landscape architecture
- Greenhouses
- Community structures
- Experimental living architecture

Every plant grown becomes a future building block.

The Structural Core System

The removable plant chamber leaves behind a hollow central cavity within each cured block.

This cavity allows the block to serve as more than simple insulation.

Depending on the intended application, the cavity may be filled with:

Earthen Core Mixtures

- Clay
- Sand
- Lime
- Straw fibers
- Biochar

- Local soil blends

These natural materials provide mass, thermal regulation, and additional structural stability while remaining compatible with regenerative building principles.

Reinforced Structural Cores

For applications requiring greater load-bearing capacity, selected blocks may be filled with reinforced concrete.

Rather than using concrete throughout the structure, concrete is concentrated only where engineering demands it:

- Corners
- Columns
- Load-bearing points
- Roof supports
- Foundation transitions

This dramatically reduces overall concrete use while preserving structural integrity.

Living Architecture

The Living Pot™ is more than a product. It's a platform.

A community utilizing Living Pots™ can simultaneously:

- Divert organic waste from landfills
- Recycle discarded plastics
- Produce food
- Grow plants and trees
- Build soil
- Sequester carbon
- Manufacture construction materials

The nursery becomes a building-material factory.

The building-material factory becomes a food-production system. The waste stream becomes a resource stream.

This is the vision of the Institute for Living Materials:

Living Architecture for Planet and People.

Not building with nature.

Growing with nature.

Grow Food. Grow Soil. Grow Shelter.

Every Plant Grows a Brick.