

ARTIFICIAL LARGE PRINT GUIDE

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Artificial

Design Researchers in Residence 2024/25

Traditionally, design has prioritised human needs and values. This approach separates us from the natural world, turning nature and matter into resources to be extracted or territory to be reshaped.

Design Researchers in Residence: Artificial challenges this mindset – it explores the perceived boundary between what is ‘natural’ and what is made by humans, finding that the two are in fact intricately intertwined.

The projects featured in this exhibition invite you to examine the artificial relationships woven into everyday life – from urban ecosystems and manufactured materials to institutional knowledge and political infrastructures. In this way, heat pumps become system disruptors, parakeets are co-inhabitants, vacuum cleaners act as indicators of behaviour change and plants carry ancestral knowledge.

This year's residents ask you to question your understanding of what is natural and what is artificial and to explore the ways in which design can help us imagine a future rooted in care, collaboration and coexistence.

Design Researchers in Residence 2024/25

Christie Swallow

Hani Salih

Laura Lebeau

Neba Sere

Design Researchers in Residence is Future Observatory's programme for emerging design researchers hosted at the Design Museum.

The residency supports thinkers and makers from different disciplinary backgrounds at the start of their careers to develop a new research project around a theme that responds to the climate crisis.

This year's residency theme is Artificial. Our four residents were selected through an open call for proposals engaging with this theme and the projects on display are the outcome of an eight-month research period spent at the museum.

Future Observatory is the Design Museum's national research programme for the green transition. It is coordinated by the museum in partnership with the UKRI Arts and Humanities Research Council (AHRC)

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Pippy Stephenson, Rada D'Souza, Re-
Collective, Rebecca Lewin, Ross Crawford
and Salah ud Din

Artificial Publication

This publication is free for visitors to Design Researchers in Residence: Artificial at the Design Museum. It features essays, interviews, photography and diagrams which expand on the residents' research findings and process.

This is a limited-edition publication. If you are visiting with a large group, please do not take more than two copies.

A digital version is available at:
futureobservatory.org/research/library

→ Enter right, towards Henry Hoover

Harmless Appliances

Laura Lebeau

What is the role of the designer in the lifecycle of a product?

Harmless Appliances traces the hidden materiality of everyday objects to uncover the upstream impact of mass-produced domestic appliances, before they are even purchased. By focusing on a single (friendly) vacuum cleaner, designed and manufactured in the UK, Laura Lebeau explores how the most ordinary object can reveal complex networks of material sourcing, manufacturing infrastructure, and the potential for longevity through repair.

Exploring the transitions between natural 'raw' materials and synthetic 'product' materials for component manufacture, Laura's research pushes the boundaries of materiality to imagine a harmless Henry that moves even further towards regional supply chains, facilitating hyper-local repairs, as she speculates on and

challenges the assumed immutability of global supply chains for mass manufacture.

Laura Lebeau is an industrial designer working across objects, tech, and speculative design. Her work focuses on imagining radical sustainability strategies for the future of consumer electronics, as well as experimenting beyond the expected aesthetics of technology. Laura has a Master's in Industrial Design from the Strate School of Design. She spent five years at Map Project Office and is currently a Senior Designer at BLOND.

→ Move right along table, towards hanging posters

Henry Now

Henry the vacuum cleaner is ubiquitous; the quirky red appliance can be found in all kinds of spaces, from private to public, humble to opulent. Largely unchanged since its launch in 1981, its design allows for endless repairs; new parts remain compatible with old ones, and online repair communities are thriving.

To understand the environmental impact of this appliance, Laura has dismantled Henry to identify, weigh and calculate the material impact of each component part. Here you can see the process of creating a Material Analysis that calculates the CO2 emissions of raw materials, manufacturing, and usage, alongside calculations that track extraction impacts, and microplastic and PFA release.

Spinning Hat Disk

Numatic

ABS (provenance unknown)

Red Body Shell and Face Plate

Numatic

Polypropylene (provenance unknown)

Back Wheel

Numatic

ABS (provenance unknown)

Manufacturing by-products

Materials courtesy of Numatic

Material Samples

Polypropylene, red masterbatch

Polypropylene, factory recycled from
manufacturing by-products

Polypropylene, uncoloured

ABS, uncoloured

TPE, uncoloured

Materials courtesy of Numatic

Numatic Factory

Photography by Laura Lebeau

Upstream Impact

This accounts for everything that happens before a product is taken home and used for the first time. From the extraction of raw materials to manufacturing waste, this impact lies with the materials choices, production methods, and supply chains decided upon in the studio.

Flexible Tube

Numatic

TPE (provenance unknown)

Filter Basket

Numatic

Non-woven polypropylene and TPE
(provenance unknown)

Henry Material Analysis

Designed by Laura Lebeau

→ Turn around, move towards clear display case

Harmless Henry

These speculative repairs playfully imagine how domestic appliances could evolve to be harmless. Collaborating with local makers and working with regionally available materials, each prototype realises a low-impact replacement for Henry's standard parts. Through this process, Laura invites you to imagine what appliances might look like if their design was not exclusively at the service of human convenience.

Harmless Henry

Each object has been made within 100 miles of central London

Red Body Shell and Face Plate

Made by enrorê

3D printed ceramic and glaze from England

Filter Gasket

Made by CNC Projects

Cork from the EU

Filter

Made by Christie Swallow

Hemp from the EU and wax thread from the UK

Spinning Hat Disc

Made by Blast

Paper pulp from London

Back Wheel

Made by Fat Fox Mushrooms

Mycelium from London

Back Wheel

Made by David Swallow

Ash sourced from Fallen & Felled in London

Flexible Tube

Made by Laura Lebeau

Recycled paper from the UK

→ Turn around, move into next section (far right of display)

Hot Mess

Hani Salih

How do the rules and systems that shape where and how buildings are constructed impact the UK's ability to transition its energy infrastructure to meet Net Zero targets?

Hot Mess maps the decision-making processes within the UK's planning system to explore how complexity is managed, often in contradictory ways, across different levels of governance. From local on-the-ground communities to developers, planners, civil servants and senior government officials, Hani Salih's research untangles the process of trying to install a single heat pump to reveal the barriers embedded in the system.

Deploying lessons from systems theory, herd and swarm intelligence, and by studying how flows of resources in naturally occurring systems are managed and maintained, Salih invites you into a speculative model, rooted in

nature-mimicry and less arbitrarily tradition-bound ways of thinking about organising large, interrelated systems.

Hani Salih is a researcher, writer and curator who works at the edges of many disciplines, practices, and ideas; connecting the dots. These interests are grounded in critical spatial thinking, stemming from his background in architecture. Further studies at the LSE led to an interest in systems and the infrastructures that shape our lives. Hani is a curator and moderator at De Dépendance in Rotterdam and was formerly Co-Curator of the International Architecture Biennial in Rotterdam (2024) and Senior Researcher at The Quality of Life Foundation.

→ Starting left, move along table of diagrams

Systems Mapping

The structures that shape our everyday lives are determined by systems that govern who gets to make decisions, and how they are made. Systems mapping is a visual process for understanding complex networks by mapping out their components, actors, relationships and dynamics.

Illustrating a system can highlight how different elements interact and influence each other by revealing how decisions are made. Hani has mapped out the hidden mechanisms that inform the UK government's approach to planning, to understand how the current system functions (or doesn't) and reveal potential areas for designers to intervene and influence change.

How does a Heat Pump Work?

Diagrams by Hani Salih

Heat Pumps and the NPFF

Diagrams by Hani Salih

Consultation from Warren Lever

The Current Planning System

Diagram by Hani Salih

Consultation from Warren Lever

→ Continue forwards, towards screens

Heat Pumps

Heat pumps are electrically powered heating systems that can be run on entirely renewable energy sources, offering an alternative to gas boilers. In the UK, the government offers financial incentives and grants to help households and businesses switch from gas to electrical heating systems.

Due to local planning policy, this process is frequently complicated, and people often get stuck in the slow, opaque application process. Through these two films Hani follows the process of getting heat pumps installed in a church on White City Estate. Through conversations with residents, engineers and business owners, he reveals the real-world challenges and barriers along the way.

Keeping the Castle Warm

Edited by Hani Salih

Contributions from Tek Pun (REMKI),

Louisa Patel (RAMKI), Jigs Patel (RAMKI),
Kathy L, Phil Nevard, Warren Lever and Alex
Winters

3 minutes 30 seconds

Our Lady of Fatima

Edited by Hani Salih

Contributions from Father Richard Nesbitt,
Elroy Fernandes, Laura Allison and Alex
Winters

6 minutes 30 seconds

→ Move right, to table of diagrams
and models

An Alternative Planning System

This speculative model learns from how individual actors within natural systems move and coordinate collectively. The model reimagines the flows of resources and highlights the knowledge gaps in the planning system, specifically through the lens of installing a heat pump. Remapping existing relationships to redistribute knowledge and resources to where they are needed.

This model articulates an alternative system for decision-making; one inspired by natural systems of organisation. Hani asks how we might apply the seemingly chaotic, complex relationships found in nature to human structures of governance and design.

Heat Pump Models

LG THERMA V

Samsung R290 (12kW)

Vaillant aroTHERM

Printed by 3D People
PA12 Nylon

Journey Through the System

Anonymous

RAMKI

Kathy L

Our Lady of Fatima Catholic church

Whittlesford United Reformed Church

Diagrams by Hani Salih

Imagining an Alternative Planning System

Diagram by Hani Salih

→ Continue right, towards hanging
drawings

Hot Mess: A Triptych

- **Predicaments of the Pipeline**
- **The Perils of Complexity**
- **Disentangling the Knot**

Drawing by Louis Pohl Kosedá

Ink on cotton paper

→ Return to entrance, re-enter display
(left side)

Paracologies

Christie Swallow

How can selective narratives about which species belong in certain geographies limit our imaginative responses to changing ecologies?

Paracologies invites you to convene with parakeets, a species of bright green bird that roost in the manicured parks of London. Through walking, stitching, and interspecies worldbuilding, Christie Swallow's research asks you to move beyond an outdated idea of what is native (and therefore natural) – and asks you to question who gets to belong in the artificial ecologies of transplanted urban nature.

Through in-depth collaboration with musician Jessica Roch, the project has fostered more-than-human communication by composing music for parakeets. Through the travails of the parakeet, Christie hopes to better understand how we might coexist on this damaged planet and foster solidarity across species boundaries.

Christie Swallow is an artist and designer who crafts new stories from old ideas. Their work engages with how the Anthropocene's separation of humans and non-humans produced our planetary crisis. Through counter mapping, their practice engages with ecology, technoscience and heterodoxy. Christie has undertaken residencies at the European Commission, the University of Birmingham and Hanger CIA.

→ Starting right, move along table
with Parakeet pins

Paracology Walkshops

Each walkshop invites participants to hang out with parakeets and explore the parallel histories shared by parakeets and humans. Tracing their more than 2,000-year entanglement. Each stop along the way dives into site-specific stories scattered along a route through the manicured architecture of St James's Park.

Each guided walkshop follows the parakeets, observing where they gather, which trees they feed from, and where they choose to nest. Through this research process, Christie reveals the strange ecologies of artificial entanglements that otherwise go unnoticed.

If you'd like to become a Paracologist, you can sign up by following this link:



Parakeet Pins

Embroidered reclaimed organza composite

Proof of Paracological Training

Print on recycled paper

Paracology Walkshop

Photograph by Hani Salih

Probable result of the Acclimatisation Society

Punch's Almanac, George Du Maurier

Lithographic print on ivory paper

1862 – 1880

Probable results of the Paracologists

Illustration by Max Cooper-Clark

→ Move left along table, towards
hanging quilt

Paraquilt

A tactile research tool that stitches together and maps layers of information, stories and histories throughout Christie's ongoing research. Moving research out of the archive and into physical space, the quilt holds embroidered information. Translating textual information to textile allows people to touch, feel and learn as they walk through the parks.

Paraquilt

Cotton and wool quilt with embroidery on printed organza, linen and canvas appliqué

→ Move left, towards screen

Pandemonium

A collaborative composition created with musician and composer Jessica Roch. This two-part composition uses the language of London's parakeets as source material, approximating parakeet song through classical music. Performed by flute, violin, and soprano, the piece aims to create sounds that are meaningful to parakeets, as a means to reach out to start a dialogue. Surrounding this trio, layers of synthesiser evoke the soundscapes of the city, the ever-shifting environment in which these birds have adapted and flourished.

Pandemonium Record

Designed by Christie Swallow

Composed by Jessica Roch

Featuring Catriona Bourne and Caroline Lyons

Mixed and mastered by Adam Znaidi

Technical assistance from Streetlight, Yipps and Joe Swallow

Contact Calls – 7 minutes

Eeyores – 7 minutes 5 seconds

Warbles – 4 minutes 49 seconds

Record Sleeve

Printed on Vinyl Presents

Graphic Score

Designed by Christie Swallow

Composed by Jessica Roch

Convening with Parakeets

Edited by Reilly Marcussen

Filmed by Kensho Productions

4 minutes 47 seconds

→ Turn around, enter next section
(far left of display)

Ancestral Plants: Anarchive

Neba Sere

How do different spaces, voices, and knowledge systems shape and alter our emotional and material relationships with plants?

Ancestral Plants: Anarchive invites you to decolonise your understanding of plants and archives by examining the relationship between anthropocentrism and colonisation. Neba Sere in collaboration with Umi Lovcraft reflect on the top-down structures of Western plant archives – dominated by hierarchies and classification systems – and contrast this with the highly emotional and sensuous legacies of their displacement, commodification, and extraction. The research starts with five key plants: Banana, Cocoa, Coffee, Oil Palm, and Sugar – cash crops that have played a foundational role in British economic wealth and continue to shape global consumption habits and exploitative labour conditions.

Anarchive opens up a space for care, collective learning, and reconnection to devalued plant knowledge. Redesigning the archive as a space constructed through oral histories, intangible knowledge systems and sensory entanglement, the work gently guides us towards listening to, and learning from, the more-than-human world.

Neba Sere is a spatial practitioner advocating for diversity and inclusion in architecture. She is an associate professor at The Bartlett School of Architecture, UCL, where her research focuses on decolonisation and decarbonisation. Neba co-leads decosm with Umi Lovcraft and is the Co-Director of Black Females in Architecture. Her previous roles include Senior Project Officer with the GLA's Regeneration Team and leading youth projects at Build Up Foundation.

→ Starting right, move towards bookshelves

Decolonial Library

A collection of books by global majority authors, organised into four categories: Children's, Fiction, Non-Fiction, and Plant Use. The library invites readers to choose how they want to learn, encouraging self-directed exploration and immersion in stories centering plants.

The collection focuses on accessible writing for a wide audience, offering ways of learning beyond traditional academic frameworks. Many of the books were published outside the UK, often in regions where the plants discussed are actually grown. Some are no longer in print, making them rare and valuable sources of local knowledge.

Decolonial Plants Book

decosm, created by Neba Sere and Umi Lovecraft

Images courtesy of Royal Botanical Gardens, Kew

Herbaria press by Field Botanist
Design support from Rhea Martin
Copy-edited by Nathan Lee Graham
Thanks to Scott House, Tony Yard and
Peter Byrne from UAL London College of
Communication

Decolonial Library

decosm, curated by Neba Sere and Umi
Lovecraft
Books, paper and natural banana fibre silk yarn
from Nepal
Design support from Rhea Martin
Thanks to Housmans Bookshop and Scott
House, Tony Yard and Peter Byrne from UAL
London College of Communication

Cane and Kana: A Fictional Dialogue

decosm, written and directed by Umi Lovecraft
Music and sound design by Sami El-Enany
Performed by Derhaveland Thompson and
Michele Eastmond
Narration by Neba Sere
Vocal and recording support from Tanja Daese

Thanks to Marco Tarantino from UAL London
College of Communication

11 minutes 52 seconds

→ Turn around, move towards table
with hanging yarn

Mycorrhizal Conversations

Oral Histories is the practice of recording and preserving people's memories, experiences, and perspectives to create a more personal and inclusive historical record. In these conversations, three plants – Cocoa, Coffee and Oil Palm – are explored through conversations with people who have worked with the plants in their living forms.

Guests include academic and historical experts, as well as those with hands-on, tactile experience – growers, makers, handlers, and others whose knowledge is rooted in practice. Each episode offers a window into diverse lived experiences, with a focus on voices from marginalised groups and communities often excluded from dominant Western narratives.

Mycorrhizal Conversations

decosm, led by Umi Lovecraft

Music and sound design by Sami El-Enany

Coffee

Prof Jonathan Morris and Anteneh Mulu

Conversation facilitated by Neba Sere

Recorded at The Ethiopian Coffee Company

21 minutes 58 seconds

Cocoa

Rafa Ayala Silva

Conversation facilitated by Neba Sere and Umi Lovecraft

Recorded at Berkeley Farm Project

15 minutes 17 seconds

Plant Seeds

Oil palm kernels from Nigeria

Unroasted coffee beans from Ethiopia

Cocoa beans from Peru

Tactile Anarchive

decosm, led by Neba Sere

Birch ply sheet and natural banana fibre silk yarn

Making support from Fussilat Ibrahim

Thanks to B-made and The Bartlett workshops

Living Anarchive: Share Your Plant Stories

decosm, curated by Neba Sere and Umi Lovecraft

Website by Plan B

Visual identity by Celina Carlisle and decosm

Mycorrhizal Conversations

decosm, led by Umi Lovecraft

Music and sound design by Sami El-Enany

Oil Palm Part I

Dr Kwame Baah

Conversation facilitated by Umi Lovecraft

Recorded at Nour Cash and Carry

18 minutes 07 seconds

Oil Palm Part II

Dr Alice Rudge

Conversation facilitated by Neba Sere and Umi Lovecraft

Recorded at The Gold Coast Bar & Restaurant

09 minutes 35 seconds

→ Continue right, towards screen

Anarchive Contributions

This Anarchive is a growing, living archive. Share a story or braid, knot and interact in your own way. The collection of knowledge focuses on preserving the memories of plants through family traditions and ancestral knowledge and is open for contributions from all walks of life with a story to tell.

You are invited to share your plant stories. Please scan this QR code to contribute or text +44 7916709026

