Yasaman Sheri

# FORBIDDEN MEMORY

Serpentine
Synthetic Ecologies Compendium
Season 1 Microbial Lores
Jul 07, 2022

CELLULAR TROMPE L'ŒIL
SENSORY INTIMACY
NON LINEAR TEMPORALITIES
STEWARDS OF KNOWLEDGE

# Letter from the Editor

Serpentine Synthetic Ecologies Lab presents Compendium, a growing collective archive of resources, reflections, sketches, conversations, and content that support artistic and critical inquiry into ecology and life sciences. The inaugural season is Microbial Lores curated by Angela Dimayuga and a guild of extraordanry thought leaders. With focus on fermentation the archive deep dives into broad histories of knowledge and the invisible scales of life that govern not only our kitchens, but also our contemporary science, culture and technology.

Bringing artistic and scientific communities into experimental exchanges through iterative narrative building, and by contributing to the emergence of Synthetic Ecologies we are creating an intersectional field that investigates the interconnectedness of cultural inquiry and living systems in relation to adapting biological developments.

We believe that creativity is connecting the dots, sharing and building collectively paths less crossed. There is no wrong way of seeing. We invite you to walk along a path with us, and share your compendium of compendiums.

— Yasaman Sheri

The Compendium Guild who has collected and created the archive is made up of:

| | |
|---|---|
| Yasaman Sheri | Principal Investigator |
| Angela Dimayuga | Chef, Cultural Producer, Transdisciplinary Artist |
| Nadia Berenstein | Flavour Historian |
| Namita Patel | Fermentation Scientist |
| Joshua Evans | Novel Fermentations Researcher |
| Lucy Chinen | Bio-based Materials Practitioner & Researcher |
| Seetal Solanki | Materials Translator |
| Claire L. Evans | Writer & Musician |
| Chiara Di Leone | Writer & Researcher |
| Alexander Boyes | Integrated Producer |
| Charles Broskoski | Co-founder Are.na |

Table of Contents

# BATTLES WITH BACTERIOPHAGE (PART 16): Phage therapy as a potential solution in the fight against antimicrobial resistance



Article | Open Access | Published: 19 May 2020

## Phage therapy as a potential solution in the fight against AMR: obstacles and possible futures

Charlotte Brives & Jessica Pourraz

*Palgrave Communications* **6**, Article number: 100 (2020) | Cite this article

**43k** Accesses | **46** Citations | **37** Altmetric | Metrics

### Abstract

Phage therapy, the use of bacteriophage viruses to treat bacterial infections, has existed for more than a hundred years. However, the practice is struggling to develop, despite growing support over the past 15 years from researchers and doctors, who see it as a promising therapy in the context of the rise of antimicrobial resistance (AMR). While the reasons for these developmental difficulties are complex, in this article we wish to address the effects of pharmaceutical regulations on phage therapy. By showing how phages are assimilated to an umpteenth antibiotic in legal texts, but also in certain medical practices, this article proposes to analyze the consequences of such regulatory categorization both for their production and the logistics of administration of proof of their efficacy in randomized controlled trials (RCTs), as well as the underlying concepts of infection and treatment. This paper follows Chandler's work on the concept of antibiotics as infrastructure and its inversion presented by antimicrobial resistance. Phages as living, dynamic, evolving, and specific entities, do not lend themselves easily to current categories, norms, and development models. In this sense, they act as disruptors, revealing the limitations imposed by the existing infrastructure. More precisely here, and to continue Chandler's initial thought process, this paper aims to show that antibiotics also form a kind of epistemological infrastructure, which acts as a powerful inhibitor to the development of phage therapy. In this sense antibiotics prevent the development of solutions to the problem they contribute to create. But the difficulties phage therapy faces, as highlighted in this article, can be interpreted as entry points for thinking of another medicine and imagining other possible futures. This analysis is based on a 3-year fieldwork study (2016–2019) in Europe (France, Belgium, and Switzerland), during which we conducted semi-directed interviews with various phage therapy stakeholders (physicians, researchers, pharmacists, regulators, patients, and patient associations), participatory observation in labs and observations during symposia and workshops on phages and phage therapy.

Download PDF

### Associated Content

**Collection**

**Anti-biosis – social and cultural inquiries into human-microbe relations**

Sections | Figures | References

Abstract

Introduction

A brief history of phage therapy

On phages' mode of action and potential uses

The regulatory framework: phages as industrial m...

Categorizing anti-infectives: phages as an umpte...

Conclusion/discussion

Data availability

Notes

References

Acknowledgements

Author information

Ethics declarations

Additional information

Rights and permissions

About this article

Further reading

# Biodegradable Plastics - Can Polyhydroxyalkanoates Be Produced Efficiently From Waste Plant and Animal Oils?

Biodegradable Plastics >"Polyhydroxyalkanoates (PHAs) are a potential replacement for some petrochemical-based plastics. PHAs are polyesters synthesized and stored by various bacteria and archaea in their cytoplasm as water-insoluble inclusions. PHAs are usually produced when the microbes are cultured with nutrient-limiting concentrations of nitrogen, phosphorus, sulfur, or oxygen and excess carbon sources. Such fermentation conditions have been optimized by industry to reduce the cost of PHAs produced commercially. Industrially, these biodegradable polyesters are derived from microbial fermentation processes utilizing various carbon sources."

>"Single-use components for biopharmaceutical manufacturing have a lower environmental impact than reusable components, but disposal is still a consideration."

# Biofuel Production


source: Shedding light on dark fermentation for biofuel production
Connected by Namita Patel

# tablet

**Object Type**
tablet

**Museum number**
140855

**Title**
Object: Object: British Museum Society Tablet

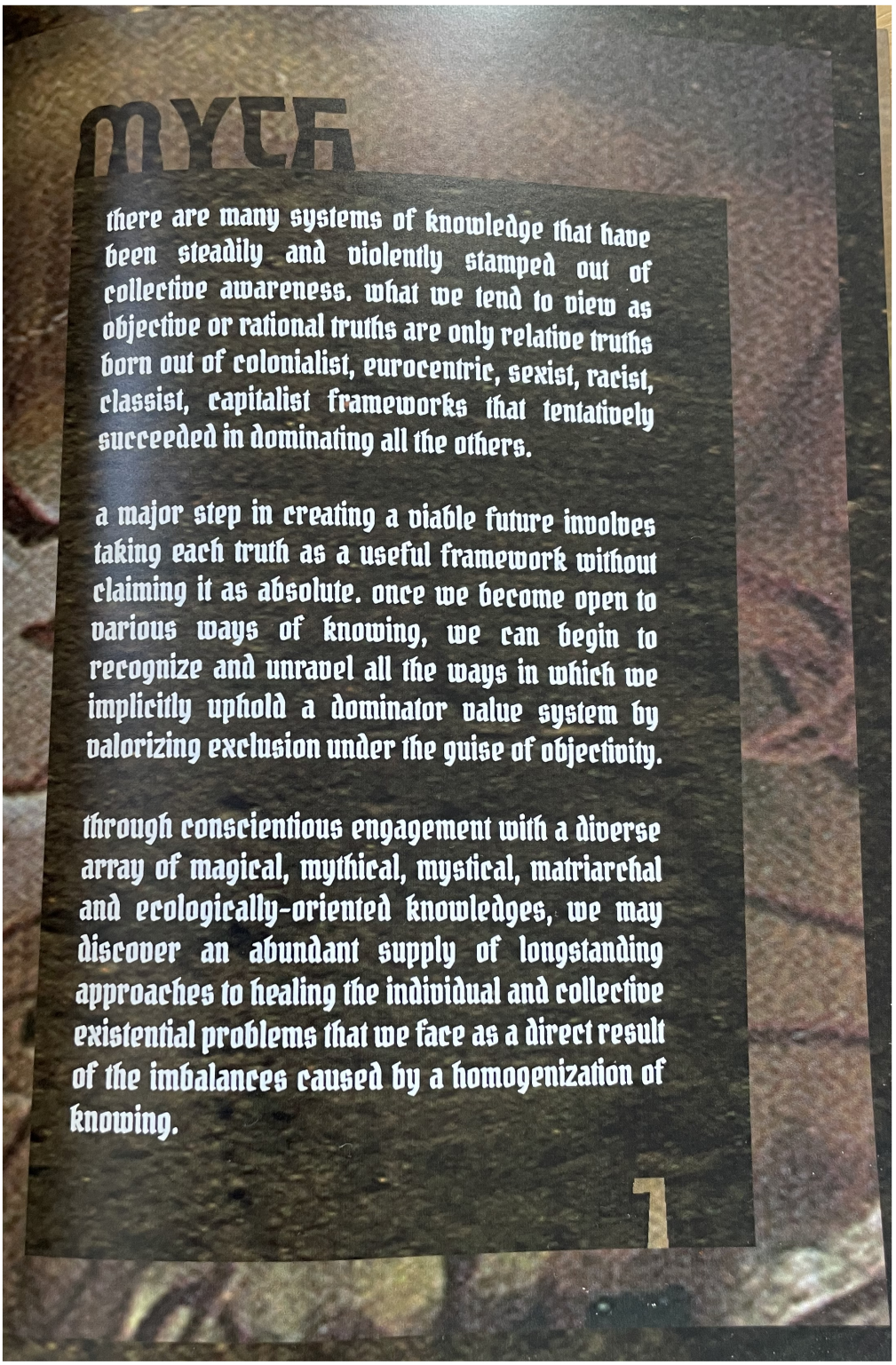
**Description**
Clay tablet; record of beer; impressed with five different types of numerical symbol.

**Cultures/periods**
Late Uruk

Substances that keep coming up when learning about insect fungus farming: Penicillin - to control bacteria that would sicken the fungus, comes from body of leaf cutter ant but obviously also antibiotic. Mold kills bacteria. Ethanol - ambrosia beetles are attracted to sick trees with ethanol to start their garden. - Lucy

limited to human evolution, physiologies, and industry).

The "surroundings" we share with microbial life are many given their ubiquity; our bodies, our dwellings, and our ecological niches are "ours" as multiple species, shared in instances of perpetual (at times risky) cohabitation. In this sense, attunement


MYTH
there are many systems of knowledge that have been steadily and violently stamped out of collective awareness. what we tend to view as objective or rational truths are only relative truths born out of colonialist, eurocentric, sexist, racist, classist, capitalist frameworks that tentatively succeeded in dominating all the others.
a major step in creating a viable future involves taking each truth as a useful framework without claiming it as absolute. once we become open to various ways of knowing, we can begin to recognize and unravel all the ways in which we implicitly uphold a dominator value system by valorizing exclusion under the guise of objectivity.
through conscientious engagement with a diverse array of magical, mythical, mystical, matriarchal and ecologically-oriented knowledges, we may discover an abundant supply of longstanding approaches to healing the individual and collective existential problems that we face as a direct result of the imbalances caused by a homogenization of knowing.

Material Memory is what sticks out to me. A lot of what has been passed through ancient traditions and where all of this knowledge and wisdom is traversing to now. Materials have been the vessels of holding this knowledge and are containing so much memory, memories that are connected to the human and also what is being contained/fermented. This timeline that we can focus on for this would be western science meets indigenous science, so that we are including both perspectives and all of the in between. The materials are a way of passing on knowledge so to speak and now these materials are being reinterpreted for our needs today but also being rediscovered - old meets new or familiar meets unfamiliar.