# Textual Bodies: AI, Natural Language Processing, and the Erotic Landscape

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## Abstract

*Erotic Ecologies* is a project that explores our damaged ecology through the lens of the erotic. This paper is focused on discussing a set of artificial intelligence (AI)-generated texts that were developed as part of my research for *Erotic Ecologies*. It explores the conceptual impetus for the texts, the methods and tools used for their generation, and their subsequent usage in creative works. The project aims to create cultural change by offering a poetic encounter with new modes of ecological thinking. Exploring concepts of a queer ecology, it challenges the binary, hierarchical systems of our capitalist culture. It uses the erotic as a means for accessing languages of intimacy—new languages by which we may shift our relationships to our ecosystem.

## Keywords

artificial intelligence, natural language processing, global warming, generated text, erotic ecology, queer ecology, multispecies, collective consciousness, archives

## Introduction

*Erotic Ecologies* is a project that explores our damaged ecology through the lens of the erotic, a source of power that according to Audre Lorde "give[s] us the energy to pursue genuine change within our world" [1]. In these works, the erotic acts as a reanimating force, an antidote to oblivion that breathes life into a dying landscape.

This paper is focused on discussing a set of artificial intelligence (AI)-generated texts that were developed as part of my research for *Erotic Ecologies*. It explores the conceptual impetus for the texts, the methods and tools used for their generation, and their subsequent usage in creative works.

## Description

The project aims to create cultural change by offering a poetic encounter with new modes of ecological thinking. Exploring concepts of a queer ecology, it challenges the binary, hierarchical systems of our capitalist culture, a culture in which loss always happens to an "other." It uses the erotic as a means for accessing new languages of care—new languages by which we may shift our relationships to our ecosystem.

The AI-system generates an endless supply of texts based on an amalgamation of ecological and erotic text inputs (see Figure 1). It performs a chimeric poetics that juxtaposes the scientific and the sensual. In one sample output, the AI generates this sentence: "But even as they smiled, they felt the hot fluid between her sea hollies for the mountain."
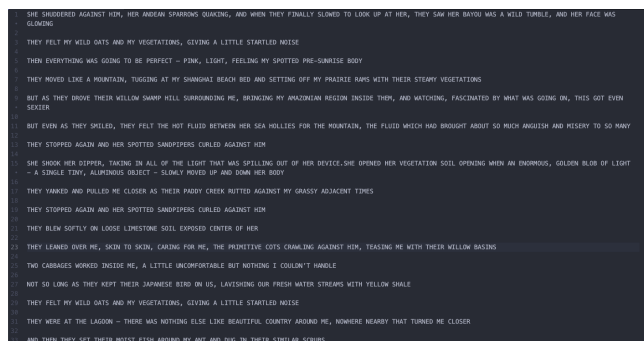


Figure 1: *Erotic Ecologies*; screenshot of results from AI-system generating text from amalgamated scientific field notes and Internet-found erotica ©Sue Huang.

The ecological texts come from over 600 field books from the Smithsonian Institution Archives (about 60,000 pages) from the mid-19th to late-20th centuries. The project uses the scientific descriptions from the field books to gain a collective image of our ecology at different points in natural history. Embedded in this amalgamation are memory traces of species, landscapes, and natural ephemera that are no longer with us—the ghosts of a damaged planet [3]. Utilizing human subjective descriptions of the earth as a starting point, this project acts as a memorial to these lost elements of our ecology.

The erotica texts come from a cross-section of popular erotic literature websites. Over 10,000 stories were collected from across a broad range of erotic themes. This amateur written Internet-found erotica constitutes a large body of language expressing hidden sensual desires and memories. As such it is an intriguing pool of material for situating language that contains an ecological sensuality. These "sensuous connections," as Timothy Morton refers to them [2], link us through space and time to our prehistoric ancestors, to a speculative future civilization, and to our ecological bedfellows. Links between ecology and the erotic have been explored in creative works by artists such as Gregory Chatonsky, Zheng Bo, and Tai Shani, as well as by the poet Daisy LaFarge.

## Methods and Tools

The project uses the GPT-2 AI-system, a transformer-based language model by OpenAI that is trained on a dataset of 8 million web pages. It is fine-tuned (using the GPT-2 Simple Python package by Max Woolf) on an amalgamated erotic ecological body of text. The amalgamated text is created using natural language processing (NLP) techniques that merge ecological texts with erotica texts.

The ecological text data is scraped from the Smithsonian Institution digitized field book archives (in PDF format) using a custom-written Python program. Searching for ecology-related words, specific prepositional and noun phrases are then isolated into a separate list. These words are merged with Internet-found erotica texts that are scraped and parsed using a custom-written Python program. Analyzed for specific scenes of erotic engagement, the prepositional and noun phrases containing body part words and romantic/erotic colloquialisms are replaced or merged with phrases from the Smithsonian-sourced ecology-related phrase list. Prepositions are used as an anchor point by which some replacements are specified. For example, the phrase "in her arms" might be replaced by the phrase "in the tall grasses."

Exploring the concept of a queer ecology, pronouns in the erotica text are mixed throughout the text using natural language processing techniques. Moving between first-person and third-person points-of-view, as well as gendered and gender-neutral pronouns, the text manifests an entangled queer ecological space.

## Creative Output

The AI-generated text is used as a raw material in my artistic practice, appearing most prominently in two works *Total Archive* and *Desert Center, USA*. *Total Archive* (work-in-progress), is a sci-fi installation/performance work that weaves together science history and speculative futures to explore ecological intimacies in a time of environmental devastation. Through a series of performance readings, the work relates a series of government reports and "strange" objects found in a time capsule from the future. Prepared by an intern working at a natural history museum, these documents and artifacts hint at an ecological system in its final throes. Moving between analogue and digital processes, mixing artificial intelligence together with handmade artifacts, the work explores our striving to preserve a memory of the nonhuman in a time of loss.

The text is used here as a basis for a long-form poetic reading that occurs as an interlude in one of the government reports—the intern sniffs the dried remains of a fictionalized extinct botanical (based on the actual extinct botanical silphium) and enters into a hallucinatory state. The poetic reading is accompanied by both sound (recordings of bone percussion) and visuals generated from a combination of animations and ceramic handbuilding techniques. The animations and ceramics explore how AI can be used to consolidate the digital artifacts of a collective human memory (represented as ghosts of extinct species) and process those images in a feedback loop using traditional material (terracotta)—remediating our digitized memories back into the physical world.



Figure 2: *Total Archive*, work-in-progress; image still of a terracotta form crafted from an AI-generated image of the extinct silphium seed ©Sue Huang.

The text also features in my project, *Desert Center, USA* (shown at Philadelphia Contemporary; LAST Projects, Los Angeles) (see Figure 3). The work is presented to the audience in the gallery space as a box set of vinyl stickers, inviting them to call, "760-227-5559, Desert Center, USA." The stickers are intended as a distributable medium through which the piece can exit the gallery space and enter into the public sphere. Upon dialing the number, the audience encounters an automated phone system which portals them into a dispersed narrative based on the AI-generated text. Pressing the keypad allows the audience to navigate through the piece, weaving through various poetic readings.



Figure 3: *Desert Center, USA*, 2021; documentation of vinyl sticker box set ©Sue Huang.

The text further appears as part of an audio experience in the VR work *Honey Fungus: Undersoil* (collaboration with Jonah King; developed at NEW INC and shown at VISUAL Carlow, Ireland; NewLab, Brooklyn; GBA, Brooklyn; Urban Soils Institute at LMCC Arts Center, Governors Island, NYC)

(see Figure 4). In this work, the audience enters into a fantastical undersoil environment and is invited to expand their bodily experience of the greater ecosystem through a journey guided by an omnipresent sentient mycelium. In this journey, they have an intimate ecological encounter with fungal spores—an encounter into which the AI-generated texts are integrated.
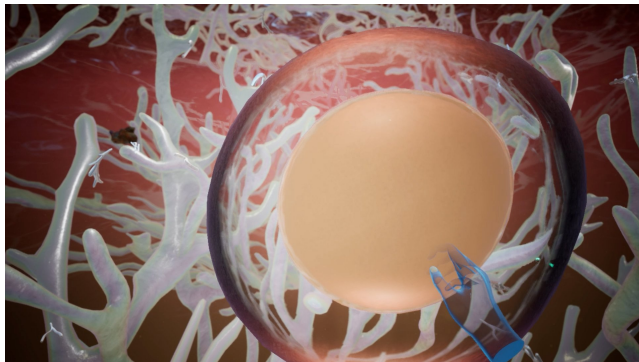


Figure 4: *Honey Fungus: Undersoil*, 2022; VR screenshot ©Sue Huang and Jonah King.

## Conclusion

*Erotic Ecologies* makes novel use of AI and natural language processing to process large bodies of text data and amalgamate our ecological history and collective erotic consciousness. In doing so it seeks to access new languages of care for our ecosystem. The generated text constitutes a pool of language that can be selectively integrated into various creative outputs, allowing for multiple points of access into the material. Through these creative outputs, the project seeks to materialize new understandings of human and nonhuman relations—understandings through which we can carve a new path forward through the climate crisis.

## Acknowledgments

## References

[1] Lorde, A. 2000. *Uses of the Erotic: The Erotic as Power*. Tucson, AZ: Kore Press.

[2] Morton, T. 2014. *Hyperobjects: Philosophy and Ecology After the End of the World*.

[3] Tsing, A.; Swanson, H.; Gan, E.; and Bubandt, N., eds. 2017. *Arts of Living on a Damaged Planet: Ghosts and Monsters of the Anthropocene*. Minneapolis; London: University of Minnesota Press.

## Author Biography

Sue Huang is a new media artist whose work addresses collective experience. Her research explores ecological intimacies, human/nonhuman relations, and speculative futures. Huang has exhibited nationally and internationally, including at the Museum of Contemporary Art (MOCA), Los Angeles; the Contemporary Arts Center (CAC) in Cincinnati; Philadelphia Contemporary; ISEA in Montreal; and Ars Electronica in Linz, Austria; GBA in Brooklyn; among others. She is a Leonardo@Djerassi (Leonardo/ISAST, Djerassi Resident Artists Program) artist-in-residence for 2024 and has previously been artist-in-residence at LMCC on Governors Island, Creative Science at NEW INC, and the Studios at MASS MoCA. Huang has received funding and project support from the Culture Council of the Emerson Collective, Science Sandbox, Rhizome, the James Irvine Foundation (MOCA, Los Angeles), Creative Scotland (NEoN), and the UConn Humanities Institute, among others. She received her MFA in Media Arts at the University of California, Los Angeles (UCLA) and her BS in Science, Technology, and International Affairs from the Walsh School of Foreign Service at Georgetown University. She is an assistant professor of Digital Media and Design at the University of Connecticut.