

VIDEO AS AN ESSAY: ARTIFICIAL INTELLIGENCE AND ARTIFICIAL SEASONS IN THE ARTISTIC PROJECT “A SUNLESS SUMMER IN SHANGRI-LÁ”

O VÍDEO COMO ENSAIO: INTELIGÊNCIA E ESTAÇÕES DO ANO
ARTIFICIAIS NO PROJETO ARTÍSTICO “ERA VERÃO,
MAS NÃO FAZIA SOL EM SHANGRI-LÁ”

Matheus da Rocha Montanari
USP
Gilbertto Prado
USP/ UAM

Abstract

This visual essay is made up of a series of images and a video essay on the artistic project "A Sunless Summer in Shangri-La" (2022). The project uses cyclic generative adversarial networks (cycle GANS) to invert the seasons in a series of videos. The networks of the artificial intelligence algorithm were trained with a database composed solely of images from the Yosemite Park in the United States of America. Therefore, by inserting images captured on a cloudy summer's day on the beach in Xangri-Lá (Brazil), the system starts to work unexpectedly, producing oneiric landscapes of snow dunes and seas of clouds. Based on these poetic interventions, the project initiates a discussion on the adoption of hegemonic systems that disregard local techno-bio-diversity.

Resumo

Este ensaio visual é composto por uma série de imagens e um vídeo-ensaio sobre o projeto artístico Era verão, mas não fazia sol em Shangri-lá (2022). O projeto utiliza redes generativas adversárias cíclicas (cycle GANS) para inverter as estações do ano em uma série de vídeos. As redes do algoritmo de inteligência artificial foram treinadas com um banco de dados composto unicamente por imagens do parque Yosemite nos Estados Unidos da América. Por isso, ao inserir imagens captadas em um dia de verão nublado na praia de Xangri-Lá (RS), o sistema passa a funcionar de maneira inesperada, produzindo paisagens oníricas de dunas de neve, e mares de nuvens. A partir dessas intervenções poéticas, o projeto inicia uma discussão sobre a adoção de sistemas hegemônicos que desconsideram a tecnobiodiversidade local.

Keywords:

Video essay; artificial intelligence;
technodiversity.

Palavras-chave:

*Video-ensaio; inteligência artificial;
tecnodiversidade.*

INTRODUCTION

This visual essay delves into the practical exploration of the artistic and research potential of experimental audiovisuals. We present different dimensions of the same artistic research project in text, images, and a video essay¹. Thus, we understand artistic research as a category that encompasses not only artistic production but also the production and dissemination of knowledge using the characteristic processes and media of the field (Tavares, 2016).

A SUNLESS SUMMER IN SHANGRI-LÁ

A Sunless Summer in Shangri-Lá (2022, video, 3'35") is a video art composition constructed from captured video and audiovisual content generated by artificial intelligence systems. In this project, the weather becomes one of the artistic agents, drawing lines between the utopian literary city at the top of a Tibetan Mountain, the Brazilian beach on the coast of Rio Grande do Sul (Xangri-Lá), and the mountains of the Yosemite Park in the United States of America. We operate by tensioning the relationship between the natural and the artificial. Amidst grains of sand and pixelated noise, we employ cyclic generative adversarial networks (cycle GANs) (Zhu *et al.*, 2017) to build a dreamlike imagery set, a quest for the sun of Shangri-Lá.

The artificial intelligence networks harnessed in this project are trained with images capturing various seasons of the year within the same geographic setting. From this extensive dataset, they engage in a competitive process, artificially transmuting input images into opposing seasons until one algorithm convincingly persuades the other of the naturalness of its artificialization. Without references to the seasons in a subtropical climate in the southern hemisphere, the algorithm does not work as expected with our input images of Xangri-Lá, creating surreal landscapes of snow dunes and seas of clouds.

The model at the core of this project was developed using images from the Yosemite Park in the United States of America. It underwent training with a dataset encompassing 853 images of the park during the summer and 1273 images during the winter. Through this dataset, it purportedly translates any given input image into the opposing

season of the year (Zhu *et al.*, 2017). In this process, the definitions of winter and summer, despite their globality and diversity, are established based on the characteristics of this specific location.

The park is frequently visited by both professional and amateur mountaineers who document their expeditions through photographs, videos, and blog posts. A renowned local climber, Brutus of Wyde, claims to have stumbled upon Shangri-Lá during one of his adventures. He described this picturesque place in the High Sierra and even produced some illustrations of it but opted to keep its precise location a secret (Vividreality, 2014).

Nevertheless, the story of Shangri Lá is much older. It was originally created in 1933 by James Hilton in his novel "Lost Horizon". It is an imaginary, mountainous place, supposedly in the region of Tibet, where the inhabitants never grow old as long as they never leave, oscillating between paradise and prison (Hilton, 2014). Its literary success inspired the name of several places, such as the coastal municipality of Xangri-Lá, in Rio Grande do Sul, Brazil.

We confronted the algorithm trained with the Yosemite references with input images of Xangri-Lá beach on a cloudy summer's day. With no references to sand dunes, the algorithm transforms them into snow-capped mountains. In this process, it creates a utopian landscape of a subtropical snowy beach. Unknowingly, the system replicates the seasons of the northern hemisphere in the southern hemisphere.

This intentional diversion from the algorithm's intended functionality for artistic purposes, referred to as "artificial stupidity" (O'Connell, 2017; Montanari, 2020), utilizes the error as a means to critique the homogeneity of technological production originating from the global North, with its indiscriminate deployment across the world, often disregarding the unique characteristics and consequences within each locality. As such, the work investigates the construction of anthropogenic landscapes through a critical examination of the techno-bio-diversities at play (Tsing, 2013; Montanari e Prado, 2021). In other words, it highlights the relationships between technology and ecology that give rise to a multiplicity of cosmotechnics (Hui, 2018).

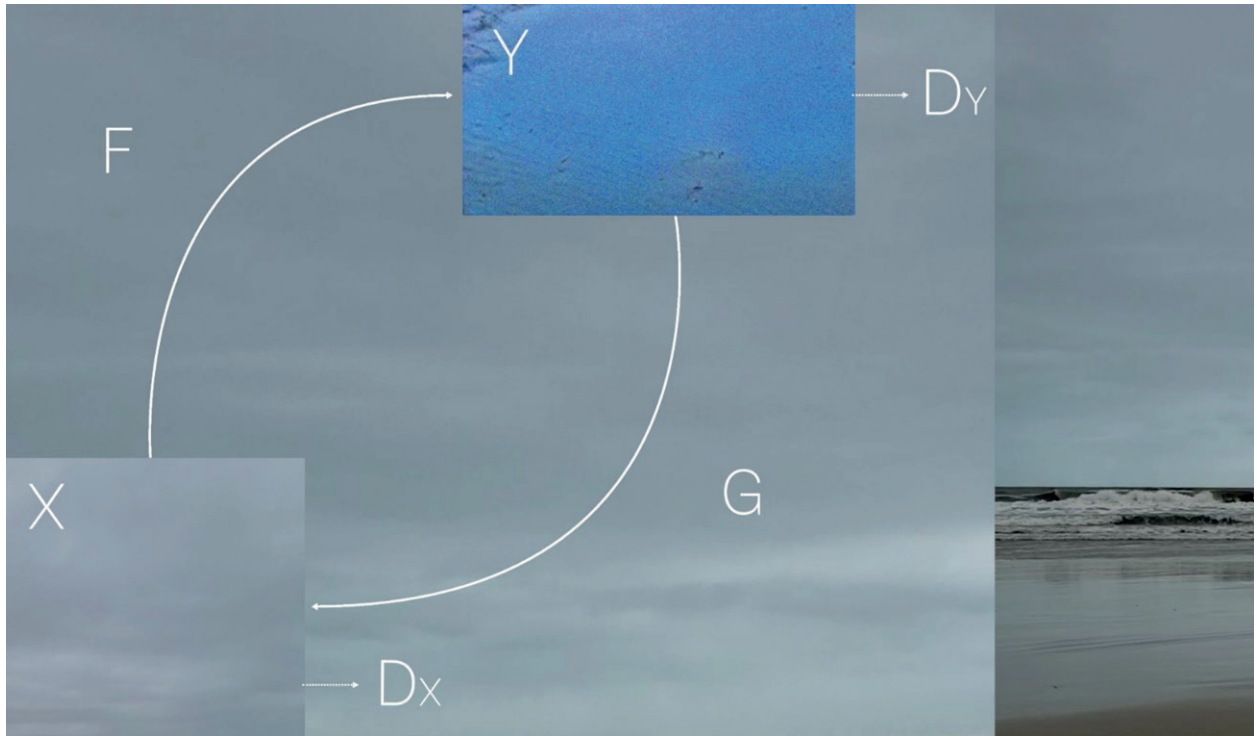


Figure 1 – Frame of “Sunless summer in Shangri-Lá”, from the author, 2022, video and generative image system using artificial intelligence, Ultra HD: 3840 x 2160 pixels

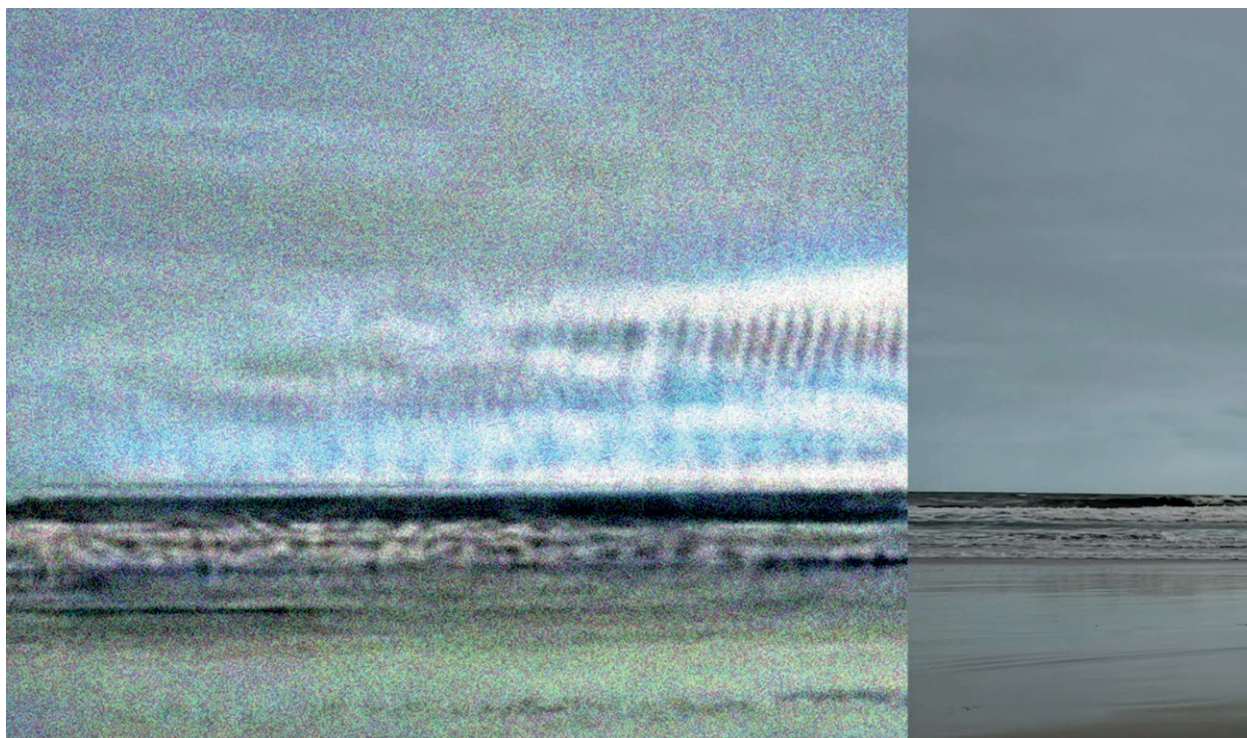


Figure 2 – Frame of “Sunless summer in Shangri-Lá”, from the author, 2022, video and generative image system using artificial intelligence, Ultra HD: 3840 x 2160 pixels.



Figure 3 – Frame of “Sunless summer in Shangri-Lá”, from the author, 2022, video and generative image system using artificial intelligence, Ultra HD: 3840 x 2160 pixels.



Figure 4 – Frame of “Sunless summer in Shangri-Lá”, from the author, 2022, video and generative image system using artificial intelligence, Ultra HD: 3840 x 2160 pixels

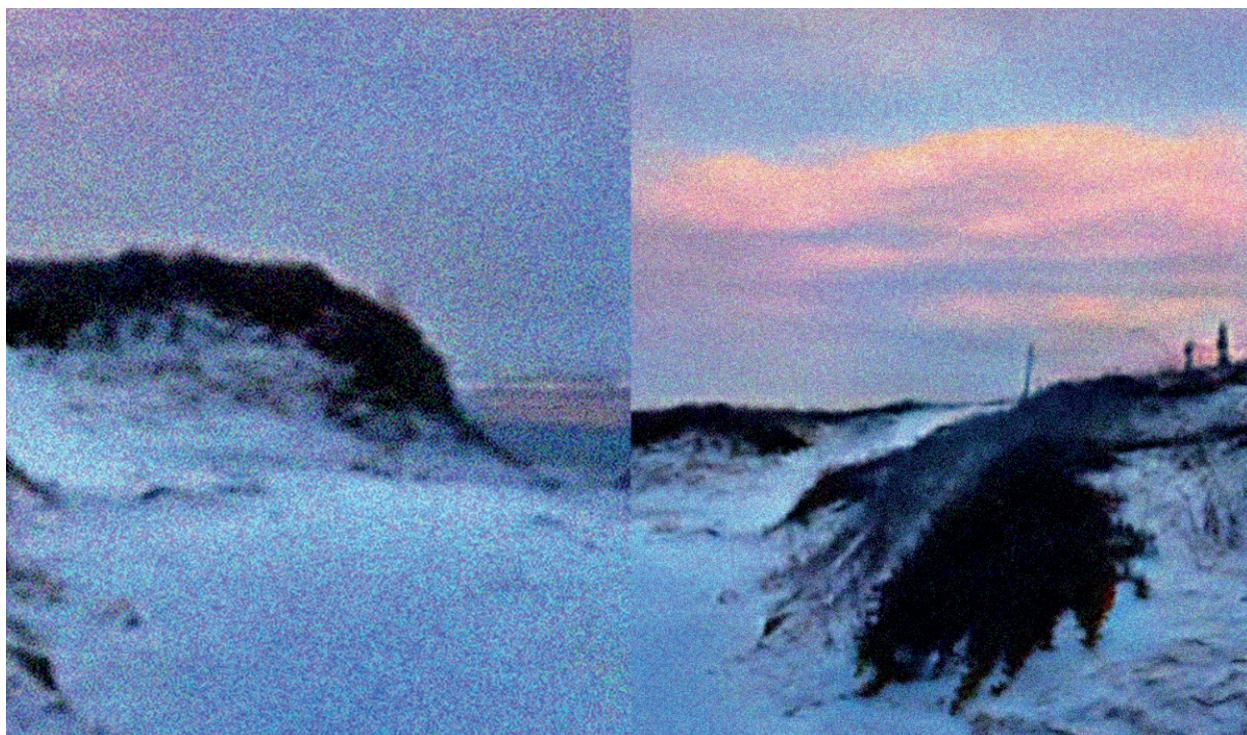


Figure 5 – Frame of “Sunless summer in Shangri-Lá”, from the author, 2022, video and generative image system using artificial intelligence, Ultra HD: 3840 x 2160 pixels.



Figure 6 – Frame of “Sunless summer in Shangri-Lá”, from the author, 2022, video and generative image system using artificial intelligence, Ultra HD: 3840 x 2160 pixels.

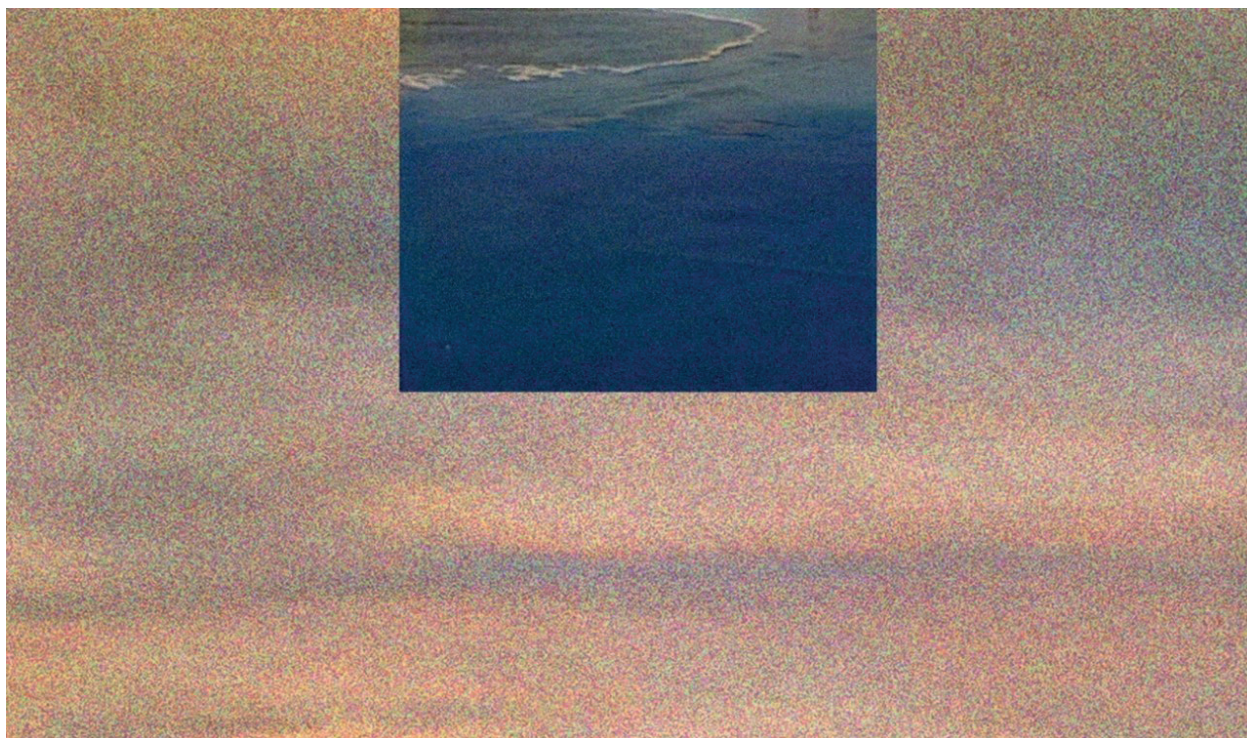


Figure 7 – Frame of “Sunless summer in Shangri-Lá”, from the author, 2022, video and generative image system using artificial intelligence, Ultra HD: 3840 x 2160 pixels.

NOTE

01. Link to the work edited for maintaining the anonymous submission: <<https://youtu.be/mQjrm7yFMOE>>.

REFERENCES

HILTON, James. **Horizonte Perdido: o mito de Shangri Lá**. São Paulo: Claridades, 2014.

HUI, Yuk. **The Question Concerning Technology in China: An Essay in Cosmotechnics**. Falmouth: Urbanomic, 2018. ISBN 0-9954550-0-7.

MONTANARI, Matheus da Rocha. Burrice Artificial: decodificação, protesto e pandemia. **VIRUS**, São Paulo, v.21, dez. 2020. Disponível em: <<http://vnomads.eastus.cloudapp.azure.com/ojs/index.php/virus/article/view/45>>. Acesso em: 4 mai. 2023.

MONTANARI, Matheus da Rocha; PRADO, Gilberto. Techno-bio-diversities in Latin American Art: Circuito Alameda and Proyecto Bíos. In: 2021, New York City. **10th International Conference on Digital and Interactive Arts (ARTECH 2021)**. New York City: Association for Computing Machinery, p. 1-8, out. 2021. Disponível em: <<https://doi.org/10.1145/3483529.3483699>>.

O'CONNELL, Micheal. **Art as "artificial stupidity"**. Thesis (Doctorate of Philosophy), Media and Film Theses, University of Sussex, 2017. Disponível em: <<file:///C:/Users/Denis/Downloads/O'Connell,%20Michael.pdf>>. Acesso em: 27 set. 2023.

TAVARES, Monica. Inter-relações entre arte, pesquisa e ciência. In: PRADO, Gilberto; TAVARES, Monica; ARANTES, Priscila (ed.). **Diálogos transdisciplinares: arte e pesquisa**. São Paulo: ECA USP, 2016.

TSING, Anna Lowenhaupt. **Viver nas ruínas: paisagens multiespécies no antropoceno**. Brasília: IEB Mil Folhas, 2013.

VIVIDREALITY. Sending The Gnar! :): An Odyssey to Shangri La. In: **Sending The Gnar!** [S. l.], 6 nov. 2014. Disponível em: <<http://vividreality.blogspot.com/2014/11/odyssey-to-shangri-la.html>>. Acesso em: 3 mai. 2023.

ZHU, Jun-Yan; PARK, Taesung; ISOLA, Phillip; EFROS, Alexei A. Unpaired Image-To-Image

Translation Using Cycle-Consistent Adversarial Networks. In: Proceedings of the IEEE International Conference on Computer Vision, 2017. **Anais [...]**. [S. l.: s. n.], 2017. p. 2223-2232. Disponível em: <https://openaccess.thecvf.com/content_iccv_2017/html/Zhu_Unpaired_Image-To-Image_Translation_ICCV_2017_paper.html>. Acesso em: 27 set. 2023.

SOBRE OS AUTORES

Matheus Montanari é artista, Mestre e doutorando em Artes Visuais pela Universidade de São Paulo. Membro do grupo Poéticas Digitais e do Laboratório de Antropologia Multimídia da Universidade de Londres. Se interessa em desenvolver uma investigação poética e ontológica da tecnologia.

E-mail: matheusrmontanari@gmail.com

Gilberto Prado é artista e coordenador do Grupo Poéticas Digitais. Estudou Artes e Engenharia na Unicamp e obteve o doutorado em Artes na Universidade Paris I - Panthéon Sorbonne em 1994. Tem realizado e participado de inúmeras exposições no Brasil e no exterior. Atualmente é Professor do Programa de Pós-Graduação em Artes Visuais da ECA - USP e do Programa de Pós-Graduação Design da Universidade Anhembi Morumbi.

E-mail: gtoprado@usp.br