Research Directions: Biotechnology Design

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NEW INC Y11 Creative Science: Cedar Exodus: Climate Refugees & The Search for Humbaba

Community Paper

Keywords: Ecological migration, climate change, green colonialism, environmental extraction, bio mythology, documentary research practice.

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Extended Abstract

Project Description and Rationale

Cedar Exodus is a transdisciplinary research project that traces the historical, symbolic, and ecological displacement of the Lebanese Cedar Tree *(Cedrus libani)*, across colonial and climatic regimes in Lebanon. Often framed as an immortal and thriving natural specimen representative of a unified Lebanese identity, the *Cedrus libani* is in fact a climate refugee in its own territory whose morphology, location, and cultural allegory are forced to shift due to various geo-socio-political impacts. Through critical-zone scientific inquiry and de-colonial storytelling, *Cedar Exodus* reclaims the narrative of the Lebanese Cedar from nationalist, touristic, ecological, and military appropriation. The first documented exploitation of the Lebanese Cedar appears in the *Epic of Gilgamesh*, where a sacred Cedar Forest is felled for mercantile extraction (Al-Rawi & George, 2014). Faisal Abu-Izzeddin called this "the first of many victories of consumerism over conservation" (Abu-Izzeddin, 1997). Over centuries, the Phoenicians, Egyptians, Romans, Crusaders, Ottomans, and British empires exploited the Lebanese Cedar for construction, ritual, and imperial infrastructure, resulting in its almost total deforestation of the tree in Lebanon (Rossi 2019). Today, the Lebanese Cedar has been co-opted across ideological fronts: by the Maronite Church as a symbol of divinity, and by the Lebanese nation-state on its flag as a nationalist emblem. Political violence continues to fragment the ecologies the tree depends on, where warlords-turned-politicians leveraged *Cedrus libani* reforestation campaigns to greenwash their civil war crimes(EcoRove, 2023a & 2023b). Amidst these socio-political frameworks, the Lebanese Cedar is forced to migrate to higher altitudes due to the warming effects of climate change, where their movement is constrained by Lebanon's alpine geography and karstic soils (Kharrat et al., 2004).

Outcomes and Future Perspectives

Cedar Exodus combines speculative ethnography, ecological fieldwork, and visual storytelling to address intersecting ideological frameworks that foreground the Lebanese Cedar tree in Lebanon. Research and fieldwork are demonstrated through various media, including documentary filmmaking, which depicts the *Cedrus libani* in its native habitat and early stages of sapling development in seed banks, and 2 & 3D animations , which demonstrate the Cedar tree's climatic adaptability alongside archival, mythological, and metaphysical dimensions of the tree's symbolism (Al-Rawi & George, 2014; Al-Rawiya, 2023). The work has been screened in the New Museum (October 2023 - January 2024), Labocine (October 2024), MASAHA/GSAPP (Columbia University, 2024), Artemis (Our Temenos, 2025), and featured in Al-Rawiya Issue Seven (2024). *Cedar Exodus* continues to follow how the

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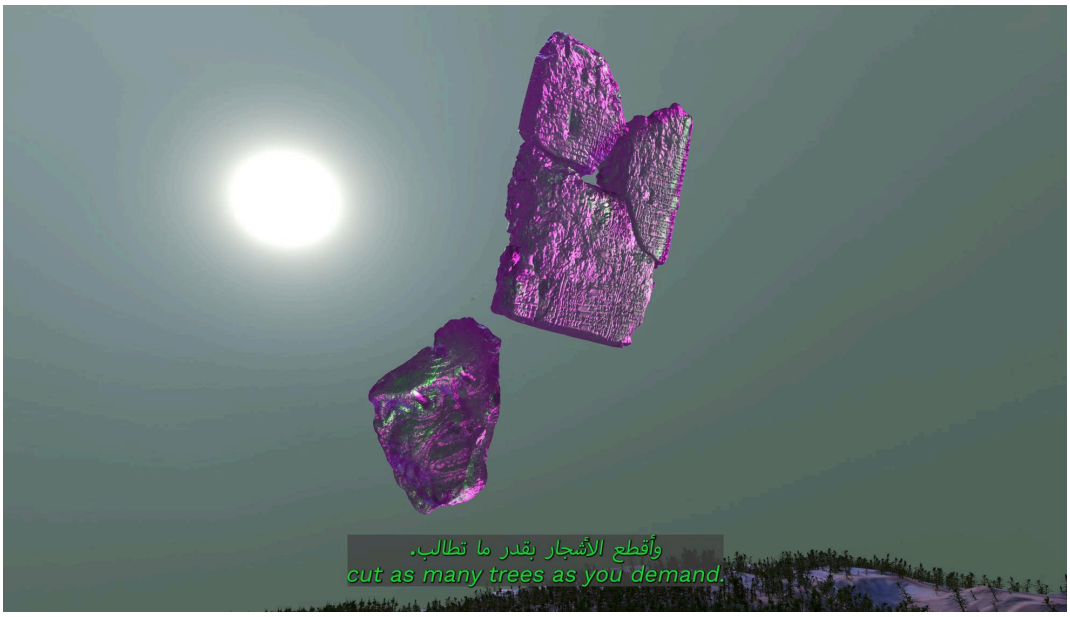
use of the *Cedrus libani's* symbolism is evolving to date, specifically how the Zionist group Uri Tzafon uses a flag depicting a Star of David embedded with a Lebanese Cedar Tree to occupy southern Lebanese territories (Naharnet, 2024). This act of occupation engages visual language that weaponizes *Cedrus libani* for illegal territorial claim. Future chapters will expand to other threatened beings and sites of extraction and resistance across the Levant.

Creative Science Reflection

Scientific inquiry of ecology and climate cannot be separated from political, social, and colonial systems that shape landscapes and their occupants. *Cedar Exodus* refuses the stance of neutrality in conservation science. Instead, it operates at the intersection of ecological research, re-contextual storytelling, and anti-colonial critique to investigate how land, symbolism, and survival are shaped under Western military and economic hegemony. Like the Lebanese Cedar, we are still looking for Humbaba.



Film still from Cedar Exodus: Where Can We Be Found?, 2023.



Film still from Cedar Exodus: Where Can We Be Found?, 2023.

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Animation still from Cedar Exodus: Exploited, 2023.

Additional Information

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Connections references

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