Artwork Title: "BichEden: Paradoxa"
Year of Creation: 2024-2025
Medium: expanded 3D animations, installation, synchronized multichannel 4K video with stereo audio
Duration: looping (variable duration)

-Pat Badani©: Artistic director: research-creation, conceptual design, sculpture, photography, video, audiovisual installation design.
-**Mariel Martinez**, Computer engineer: 3D modeler, technology advisor.
-**Gabrielle Beans** & **Keith Larson,** Evolutionary biologists: scientific advisors.
With thanks to **Jay Reinier** (Sound mixing); **Kim Nucci** (Audiovisual synchronization); and **Ismael Faro** (Postproduction advisor).

Award-winning project / research & production
BichEden: ParaDoxa received two awards in 2024 enabling research and production:
- Canada Council for the Arts, Explore & Create/Concept to Realization.
- Harvestworks Digital Media Centre – New Works Fellowship, Artist-In-Residence Program, New York.

Project Statement (long)

Viewers enter an enclosed, darkened space and encounter a dynamic installation of black-and-white expanded animations that blend visual, auditory, and spatial elements characterizing terrestrial and oceanic organisms. The exhibition layout is designed to guide visitors by installing 9 flatscreens grouped in triptychs. The three distinct groups of flatscreens - each representing oceanic, rainforest, and alpine ecosystems - have nature soundscapes that complement the visual content delivered through speakers on each grouping. Synchronization between the video and audio makes the installation feel unified despite the content being divided across multiple screens. Two displays in each group are placed in 'portrait' orientation -edge to edge at 130 degrees from each other- creating corners where the edges of mirrored videos meet, uncannily unfolding into seemingly emergent entities. The third screen in each group is placed on the floor, the ceiling, and leaning against the wall to guide the visitor's navigation and gaze: looking up, down, to the side. The arrangement of the screens and the coordinated audiovisual content invite viewers to engage the animations from various angles, offering a layered and complex visual and auditory experience.

BichEden, is informed by efforts to regenerate bioecological food chains in three Mexican ecosystems. Wanting to focus attention on healing and reconstruction, *BichEden: Oceanic Banquet* imagines new colonies of delicate organisms in a restored Great Mayan Reef; *BichEden: Rainforest* imagines a reconditioned Mayan Forest informed by Lacandon cosmology and curative herbology; and *BichEden: Alpine* imagines a scenario in the Iztaccíhuatl volcano with adaptable organisms that, like Sleeping Beauty, sleep and come back to life when conditions are favorable. Mexico's terrestrial and oceanic belt zone - stretching from coast to coast - is considered a world example of biodiversity - making the use of Mexican ecosystems a perfect way to punctuate urgency; to entice, entangle, and expand worldwide understanding of the interdependence of the human and the nonhuman.

At the project's base are Red List databases that catalog endangered species facing a decline in flora and fauna, affecting ecological food chains in the ecosystems mentioned above. A selection of these is digitally reorganized, recombined, merged, grafted, operated upon, and re-rooted. This process results in computer-generated 'still life' artifacts' that re-imagine species interactions in restored food chains. They retain enough actuality to make them plausible, evoking alternative worlds that involve counterfactual sequences and fictional formations.

These "science fiction" readings are intended to underscore aspects of exclusion inherent in dominant knowledge structures as well as the contingency and fictional quality of natural history's scientific understanding. Natural history – the study of organisms (plants, animals…) and their habitats - has been the dominant form of science in the Order of Nature for centuries. This science is influenced by 18th-century knowledge systems of classification, for example, those primarily developed by European naturalists Carl Linnaeus and Georges-Louis Buffon, who aimed to identify, describe, and catalog the entirety of the natural world, contributing to what became known as "biology". The legacy of scientific knowledge production from these days, expects scientists to achieve a detachment from their objects of research, letting them appear as fit vessels for natural truth and worldly power. This legacy, based on segregation and categorization rather than 'relationality' constitutes a myopic telescope, driven by an empirical approach that overlooks nuance, contextual information, and the intricacies and interconnectedness of natural and human systems, ultimately leading to an incomplete understanding.

I created *BichEden: ParaDoxa* wanting to intervene in the above order by integrating values, attitudes, methodologies, technologies, cultures, and knowledge that manifest a vision of the world's phenomena as being in constant relation with each other, affecting growth and change. I collect and disorder/rearrange visual and acoustic material on endangered species from online databases such as the aforementioned Red Lists (to re-create marine and terrestrial organisms in three ecosystems), virtual herbaria (to create digital grafts inspired by healing plants of the Lacandon Mayan peoples who develop and preserve ancestral strategies for food production in the tropical forest biome), and eco-acoustic collections (frontrunners in new biodiversity methods for measuring and quantifying soundscape dynamics to gauge an ecosystem's health.) This exercise involves delving into the relationship between database and narrative and questioning the externalization of memory in technology, the relationship to the past and future, and how databases structure our understanding of the world.

Indeed, constructing institutional biodiversity databases such as Red Lists is a scientific and cultural venture defined by tensions between an attempt to create a total knowledge base and the awareness that this idealized fullness of evidence and completeness is subject to reordering

and revision. This implies partiality. Of note is Linnaeus' inclusion of mythical, magical, or otherwise suspect creatures in *Animalia Paradoxa*, the 1748 edition of his binomial system – a category excluded in subsequent editions. This begs the question: will our current Red Lists seem mythical years from now?

My aim with *BichEden: ParaDoxa* is to balance quantitative data (used to research and source audio-visuals) with qualitative insights and imaginative speculations to suggest an interconnected species diversity. I collect, select, re-mix, subvert, and transform Red List documents, re-imagining the organism's relationships to each other and their environment. This results in virtual 3D models merging multiple narratives where fact and fiction intertwine. They are biomorphic creatures that function as future memory objects - uncanny archaeology of artifacts forwarding awareness of the beauty and wonder of ecosystems. They are speculative hybrid assemblages advancing an understanding of the world as inextricably enmeshed in a dense network of relations where material processes intersect with human systems, producing new epistemic configurations of life, new discourses, and new narratives.

Text by Pat Badani

1) **BichEden: Oceanic Banquet**
https://vimeo.com/manage/videos/1005487548/0dc70fa44f

2) **BichEden-Rainforest**
https://vimeo.com/manage/videos/1008943879/5c0e4defda

3) **3D Gallery Installation visualization + Art Studio Prototype**
https://vimeo.com/manage/videos/1008552948/4f77a0f852

4) **Project Page - patbadani.net**
https://patbadani.net/pro_BichEden_ParaDoxa_1.html