exo-matriz

A fabulative simulation game about land, culture, resources and beetles

Project on GitHub

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Keywords: agroecosystem, serious games, simulation, agent model, agriculture, ecology, traditional, cultural, narrative, education, fabulation

Research question: How can narrative-fabulation design, and game design, contribute to an understanding of agent dynamics within agroecosystem matrices in the context of traditional food production in Mexico?

Hypothesis: The discipline of Narrative Design in games can be expanded to encompass a fabulative world-building approach to soft-fantasy ‘serious games’ with an educational aim. And can aid in the dissemination of scientific knowledge of agro-ecological systems known as ‘matrices’ in a cultural context of traditional farming practices in Mexico.

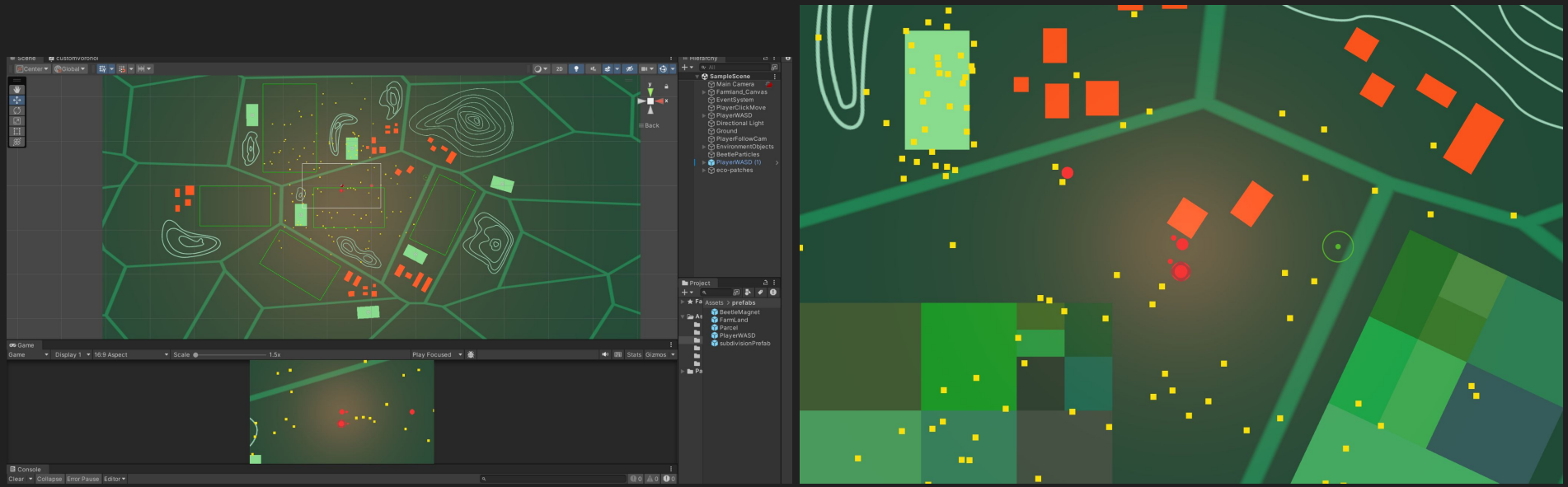
Research / narrative statement: Growing populations and urbanized living encroach on traditional agricultural practices in the municipality of Zaachila (Oaxaca, Mexico). Both the avoidance of food shortages, and the preservation of the biodiversity that we depend on for survival are crucial objectives of our age. Researchers have found that the presence and behavior of beetle populations (Coleoptera) in agroecosystems is a good indicator of ‘matrix health’ across both of those domains of concern.
Exomatriz is a top-down 2D simulation type game with soft-fantasy narrative elements that bridges the gap between science communication of how systems of variables in agroecosystems function, and the socio-cultural implications of human choice and non-human agency in an allegorical fabulative fictional setting.

Research objectives

- How can narrative-fabulation design, and game design, contribute to an understanding of agent dynamics within agroecosystem matrices in the context of traditional food production in Mexico?

- Exo-matriz is a top-down 2D simulation type game with soft-fantasy narrative elements that bridges the gap between science communication of how systems of variables in agroecosystems function, and the socio-cultural implications of human choice and non-human agency in an allegorical fabulative fictional setting.

Agro-ecosystem mode demo

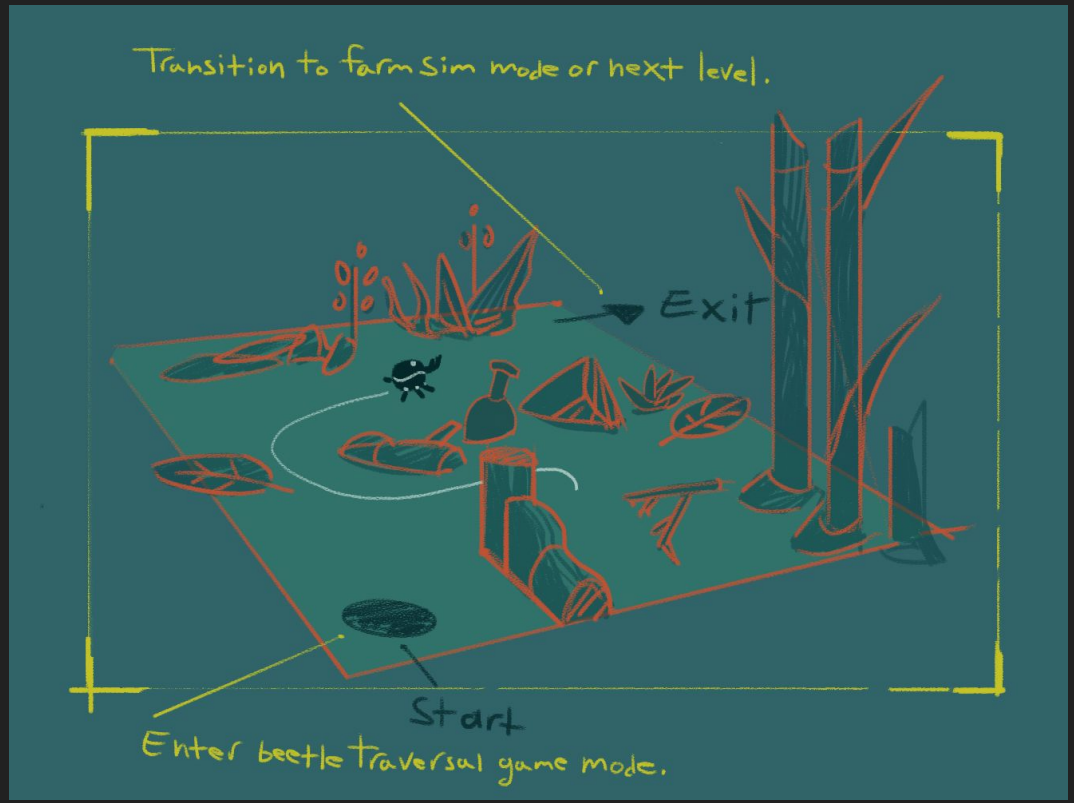


Download from Itch: https://lm-vega.itch.io/exomatriz-im1

Beetle traversal mode

A game mode, where you navigate a tiny patch of terrain as a beetle.

Level design concepting



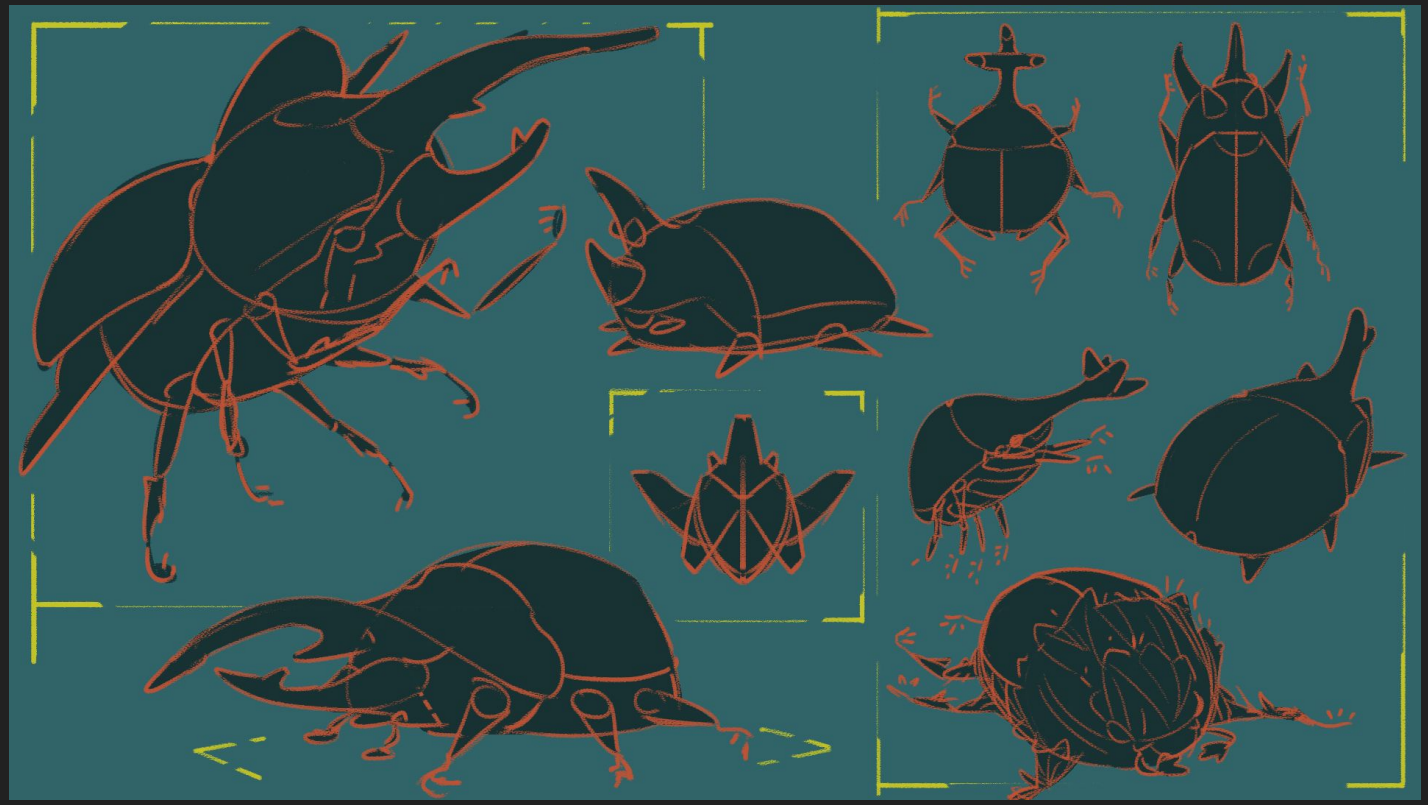
- Poetic, atmospheric, narrative.
- Not meant to be challenging to the player.
- A way to connect the macro scale, systems-view, of the farming sim to the micro perspective of a beetle.

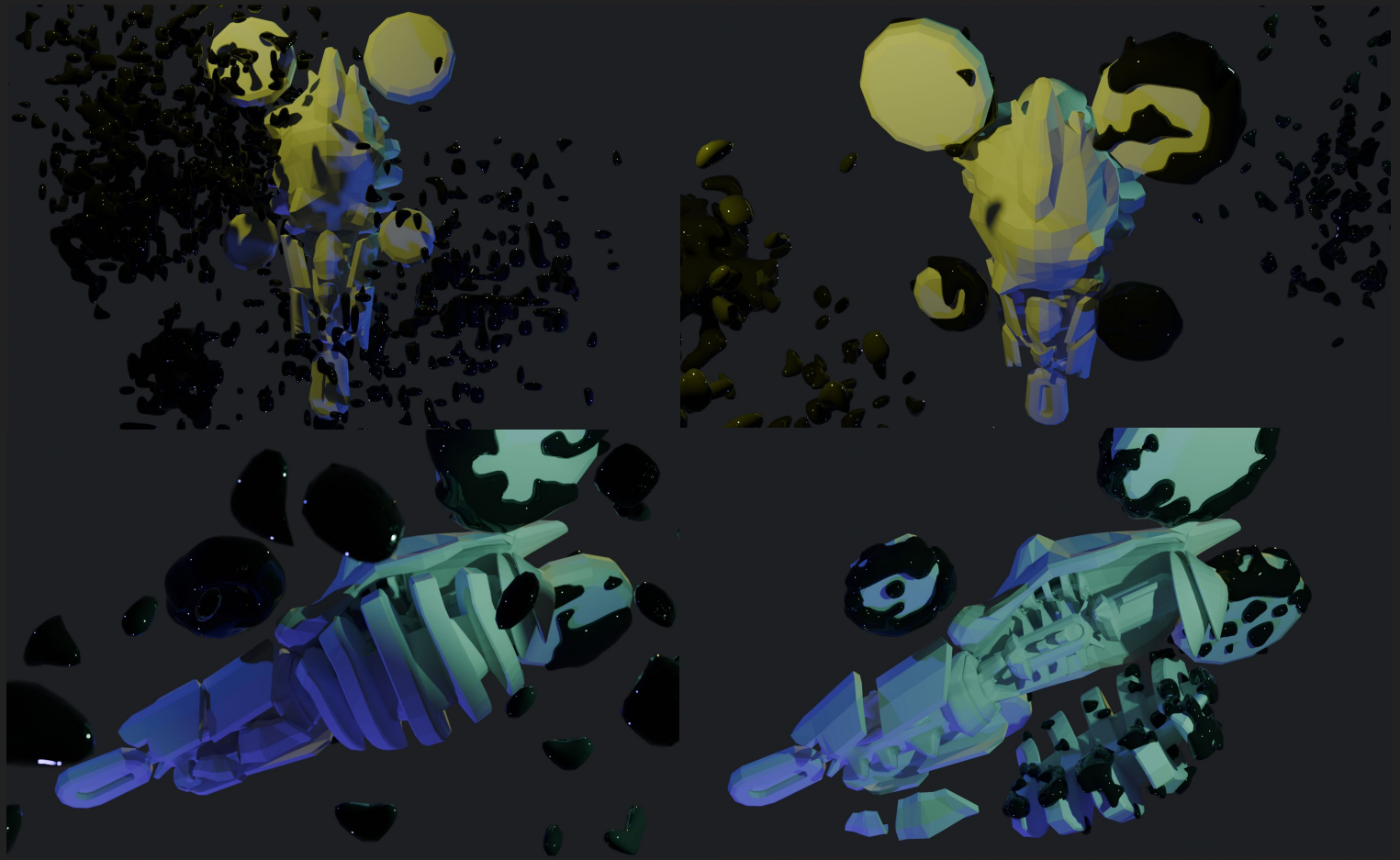
What occludes the nocturnal view
but darkness unbound?
A place for indeterminate light.
I feel like I've been left to die.
Time on this scale is exhilarating,
the circuitry of the universe.
I never thought I'd be an ancestor to tomorrow.
My own perspective vastly insignificant.
I tested the limits of my influence,
far beyond, and from beyond my mortal heart's desires.
Now I am ancient. I am stone.
If it can be said that I take decisions,
it is only through you. All of you.
Precursors of dawn.

SF Narrative framing

- SF = speculative fabulation, after Donna Haraway.
- Imagines the player as a being with the ability to interface with time and ecological systems from a global perspective.
- While playing the game, the player is understood to be using a mystical artifact to access that time scale.
- Beetle traversal mode is meant to explore reflections on the nature of that experience in an abstract narrative tone.

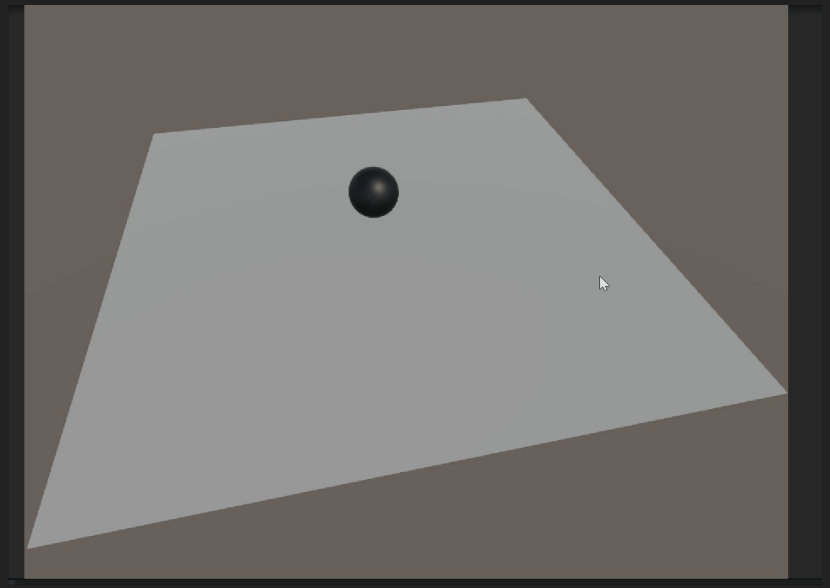
2D visual exploration





3D visual exploration

Movement: technical exploration



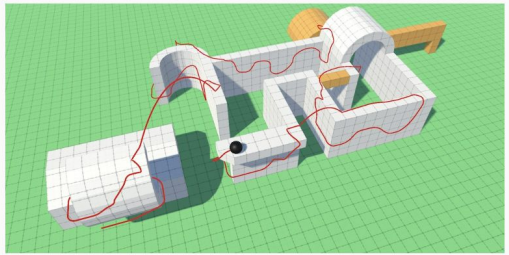
- Sliding a sphere.
- Climbing.
  - Catlike Coding: Movement tutorials.

Climbing Sticking to Walls

Make surfaces climbable and detect them.
Stick to walls, even if they're moving.
Use wall-relative controls for climbing.
Climb around corners and overhangs.
Prevent sliding while standing on a slope.

This is the eighth installment of a tutorial series about controlling the movement of a character. It adds support for climbing vertical surfaces.

This tutorial is made with Unity 2019.2.21f1. It also uses the ProBuilder package.



Sometimes you don't want to touch the ground.