



Game Development Process!

Written, Illustrated, and Developed by
Vibhu Venkatesh





Game Development Process!

Written, Illustrated, and Developed by
Vibhu Venkatesh

Table of Contents

INTRODUCTION

What is CUBURBIA?	11
Game Link	12

IDEATION

Research & Goals	15
Initial Exploration	19

DEVELOPMENT

Story Development	23
Game Development	26
Illustration Process	28
Selected Screenshots	30

WORLDBUILDING

General Setting	37
The Woodland	38
The Suburbs	39
The Meaty Backyard	40
The Garden	41
The Dog's Lawn	42
The Alleyways	43
The Chicken Yard	44
Residential Streets	45



(Continued on Next Page)

Table of Contents

The Foxyard	46
The Feeders' House	47

CHARACTERS

The Parent Fox(You)	51
Appleseed(Cub #1)	52
Sedge(Cub #2)	53
Fog(Cub #3)	54
Plum(Cub #4)	55
Bracken(Cub #5)	56
Primrose(Cub #6)	57
Amber(Cub #7)	58
Mulberry(Cub#8)	59
Other Urban Foxes	60
The Gardener	61
Urban Rats	62
The Hens & Their Keeper	63
The Hound & His Owner	64
The Pest Controller	65
The Driver	66
The Feeder Couple	67

FINAL THOUGHTS

The Future	71
------------	----



Introduction

WHAT IS CUBURBIA?



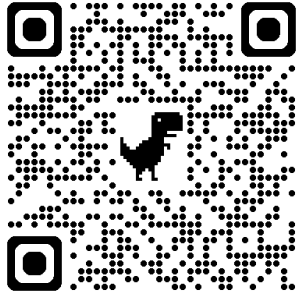
CUBURBIA is a hypertext adventure game in which you, a red fox, must find your eight cubs who have wandered into a human neighborhood. Set off on this urban foxtrot to help your cubs survive through their misadventures!

This book will document the inspirations, development notes, and worldbuilding information that influenced my process of making CUBURBIA.

I hope you, dear reader, enjoy looking at the behind the scenes of this urban fox adventure! And, of course, you can find the link to play CUBURBIA on the next page!

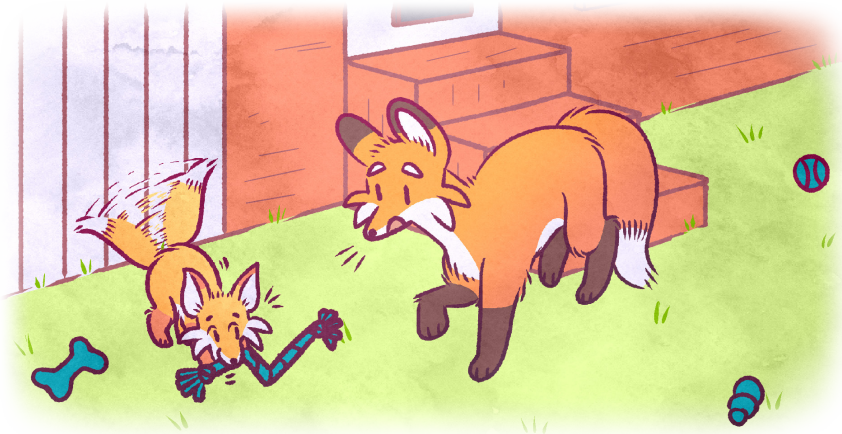
-Vibhu Venkatesh

Game Link



You can play CUBURBIA at the above QR code or at the following link: <https://vibhufox.itch.io/cuburbia>.

CUBURBIA can be played on desktop(recommended) and mobile. If you are on mobile, turn your device horizontally for best viewing experience.



Research & Goals



I am fascinated by the versatility, adaptability, and intelligence of the fox. Ever since I was young, I have incorporated foxes into my artwork and writing.

In recent years, I have been researching the ecological roles and behaviors of foxes in urban settings. I am particularly interested in European red foxes in the UK, which first settled in developing cities and suburbs in the 1930s due to human refuse and rats being abundant food sources.

Of course, the fox's simultaneous existence as an effective pest controller and a destructive pest themselves leads humans to take on a variety of attitudes towards these creatures. Being

a fox lover myself, I have come to understand the reasons why foxes are adored by some(ex: households with backyard vermin problems) and despised by others(ex: livestock keepers). I believe that it is important to advocate for responsible and compassionate wildlife interaction while also being kind to humans who are trying to protect their own interests.



I enjoy the genre of animal xenofiction, especially those in which the animal characters are anthropomorphized to think, communicate, and act in ways that are understood by human readers. I believe that anthropomorphization in animal fiction is a powerful tool to emotionally connect readers to a new experience.

That being said, anthropomorphization also has its issues when applied to real-world ecology. When people project the needs of themselves and their domestic pets upon wildlife, they attempt to feed and touch wild animals with affectionate

intentions. However, getting in close proximity with wildlife can inadvertently provoke animals to attack. Other side effects include animals becoming overcrowded in already-limited urban space, spreading disease, lacking awareness in dangerous urban situations, having poor nutrition, and straying away from their ecological roles in favor of human feeding and interaction.

This is not to say that humans and wildlife should not interact at all. For centuries, there have been symbiotic, meaningful connections between human civilizations and their surrounding wildlife.

We must learn to prevent wildlife from becoming habituated to human feeding and affection out of respect for their natural ecological existence. However, we must also learn to intervene responsibly when an animal has been injured as a result of our shared urban environment.



With my research in mind, I set out to create a project in which the interactor would learn about urban wildlife through the eyes of an urban red fox in an England-inspired suburb. Intended towards both adults and children who enjoy animal fiction, my project would guide this fox character through various urban conflicts and resolutions. Each of these conflicts would educate the interactor on responsible wildlife interaction, the benefits and dangers of an urban environment, and wildlife's best interests for survival in their changing habitats.



With this guiding burst of inspiration, I began developing the first iterations of what would eventually become CUBURBIA.

Initial Exploration

Using my previous research, in late 2023, I wrote a fiction piece called "Wrong Side of the Fence" for my Senior Capstone class. "Wrong Side of the Fence" follows Appleseed, a timid fox cub who must adapt to suburbia after her family's woodland home is destroyed. As the fox cub grows up through the summer, she observes the consequences of irresponsible human interference with wildlife. From the experiences of herself and other foxes, the cub learns to be cautious, self-reliant, and resilient as she navigates her new urban home.



"Wrong Side of the Fence" is told through a fox cub's perspective, so the reader learns about what is best for an urban fox's survival alongside Appleseed herself.

Appleseed displays very few anthropomorphized traits, which only consist of her ability to recall complex memories and reflect on dangerous situations. Otherwise, she communicates and acts like a real-life fox would.

In writing Appleseed's perspective of "Wrong Side of the Fence," I ran into a roadblock due to Appleseed's limited anthropomorphization. Because Appleseed is skittish and wary of humans as any wild-habituated fox is, her attitude towards humans is overwhelmingly distrustful. This prevents her from understanding nuance in her interactions with humans.

Although this way of thinking makes sense for Appleseed's level of anthropomorphization, I did not want to encourage the idea that all humans are destructive and cruel. There are many humans who are kind to animals, from residents who look out for their local wildlife's welfare to rescues that take in injured creatures. Also, many people do not want harm to befall wildlife but often clash with them because they are each looking out for their own interests in their shared space.

I wished to expand on the complexity of human-wildlife relationships explored in "Wrong Side of the Fence" in my senior project, which was based on my Capstone's research. This expanded exploration is what would become CUBURBIA.

It is worth noting that while "Wrong Side of the Fence" and CUBURBIA have similarities in their storylines and key events, they take place in different universes and are not narratively related in any way.

However, some characters in CUBURBIA have default names that reference characters in "Wrong Side of the Fence," such as Appleseed, Sedge, Fog, and Amber!



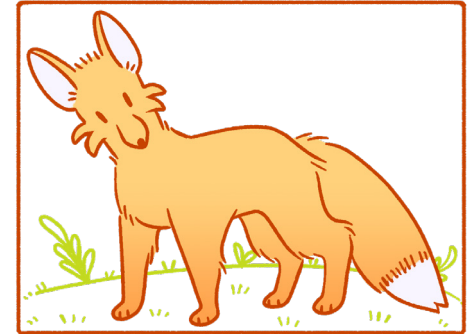
Story Development

My very first idea for my senior project before CUBURBIA was a choose-your-own adventure game in which the player makes narrative decisions as a fox living in either a suburb, woodland, or rural meadow.

The player would be able to choose how the fox character finds food, interacts with other wild animals, and encounters the local human characters.

To the right, there are three concept stills of this fox character as they would appear on the introductory screen. The visual style was to be kept minimal.

I thought that giving the player the narrative agency to make choices would



allow them to learn about what survival decisions benefit wildlife and which ones hurt them. This way, the player understands not only how animals should thrive but also how humans can respect their wildness and help them when they are injured.

However, this initial concept became too broad because I was focused on giving the player as many options as possible for replayability. I decided to simplify my game so that it only focused on urban fox life and how foxes adapt to the close proximity with humans and other urban inhabitants.

My next idea was a game in which the player controls an orphaned fox cub who takes refuge in a lady's vegetable garden in the suburbs. As the fox tears up the garden for food and the lady attempts to safely fox-proof the yard, the two both quarrel and get along in their shared space. The player would make choices that would influence the fox's relationship with the human by the end.



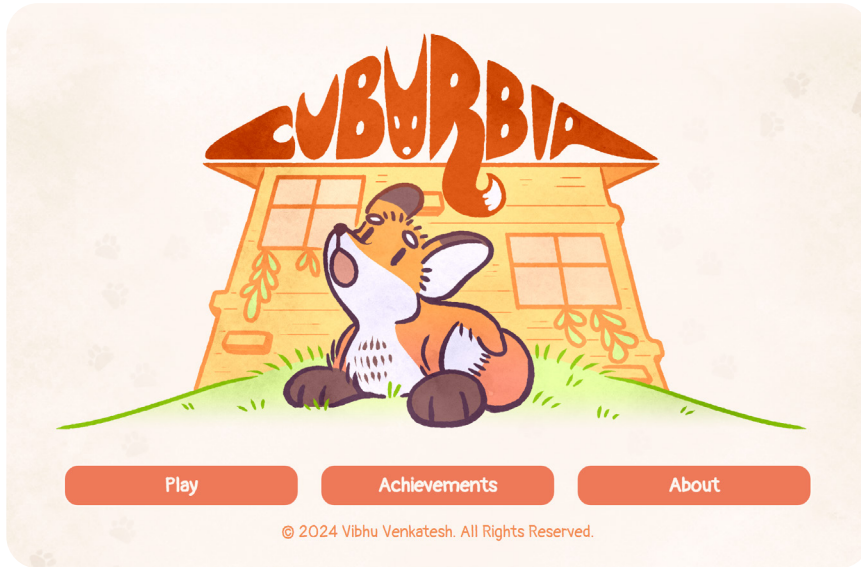
Though this concept was more focused, there were a few different aspects of urban fox life that I wanted to explore beyond the story of the lady and her garden. However, I incorporated part of this storyline into the final CUBURBIA, in which one of the cubs comes across a vegetable garden and can either try to take some raspberries or hunt rats.

In order to explore the different aspects of fox life, I decided to create eight different fox cubs who wander off into suburbia and get themselves into all sorts of trouble. In this final concept for CUBURBIA, the player will make choices as a fox parent who is trying to locate the eight cubs and teach them how to survive in different urban scenarios.

By making these choices, the player can unlock one of two different endings for each cub, as well as three different overall endings depending on how many cubs were successfully rescued. Each of these endings are recording in-game as achievements.

CUBURBIA is about how wildlife is resilient in changing times and environments, as well as the complex relationships between wildlife and the human, domestic, and wild inhabitants of urban environments. Through their playthroughs, the interactor will learn how to responsibly interact with their own local wildlife.

Game Development

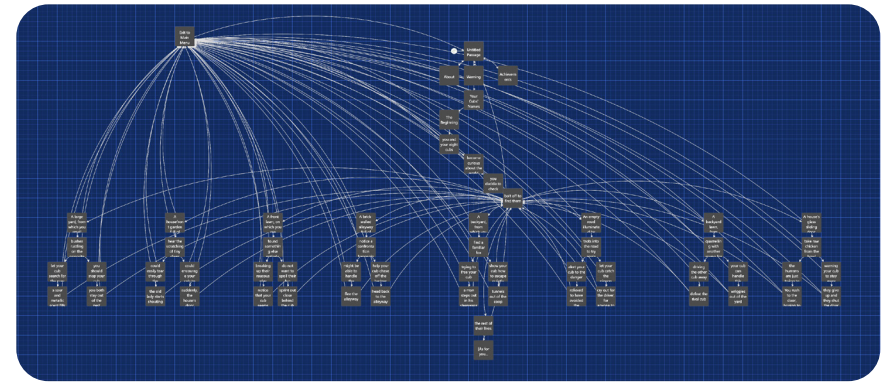


CUBURBIA was created using Twine, a free open-source tool for creating hypertext games. Using HTML, CSS, and various Twine Harlowe 3.8.3 macros, I coded in various game mechanics such as buttons, user input, score, disappearing choices, multiple choice story paths, and conditional events based on the player's choices.

It was my first time using the program, so much of the game's structure changed as I learned more about Twine and how to make my code more efficient. As someone who has limited knowledge of coding, I have learned a lot about how to ensure

that my game runs properly and also know how to make my code cleaner in my future Twine projects. However, CUBURBIA has been beta tested and works properly in its current state.

Here are some screenshots of the story flow map and passage code within the Twine file. Some text in the code is redacted because the redirect passage names contain in-game spoilers.



```
<span id="box">(text-colour:#E48D51)[(button)[Quit Game->Exit to Main Menu]]
</span>

<style> img {
  max-width:80%;
  max-height:80%;
}</style>  </div>
(align:"><=")+(box:"XXXX=")[From his patchy fur and crusty skin, you realize that
this fox has mangel! As he brushes past other foxes, you worry that the disease might
spread in close contact.]
<style> img {
  max-width:80%;
  max-height:80%;
}</style>  </div>
(align:"><=")+(box:"XXXX=")[The infected fox approaches $cub4, ready to chase the
cub away from the garbage bin. Instead of backing away, $cub4 gets ready to fight up
close.

What will you do? \n
(text-colour:#EB5C00)[(button:"XXX=")[Distance your cub from the infected fox->
]]
(text-colour:#EB5C00)[(button:"XXX=")[Allow your cub to fight->
]]
```


Illustration Process

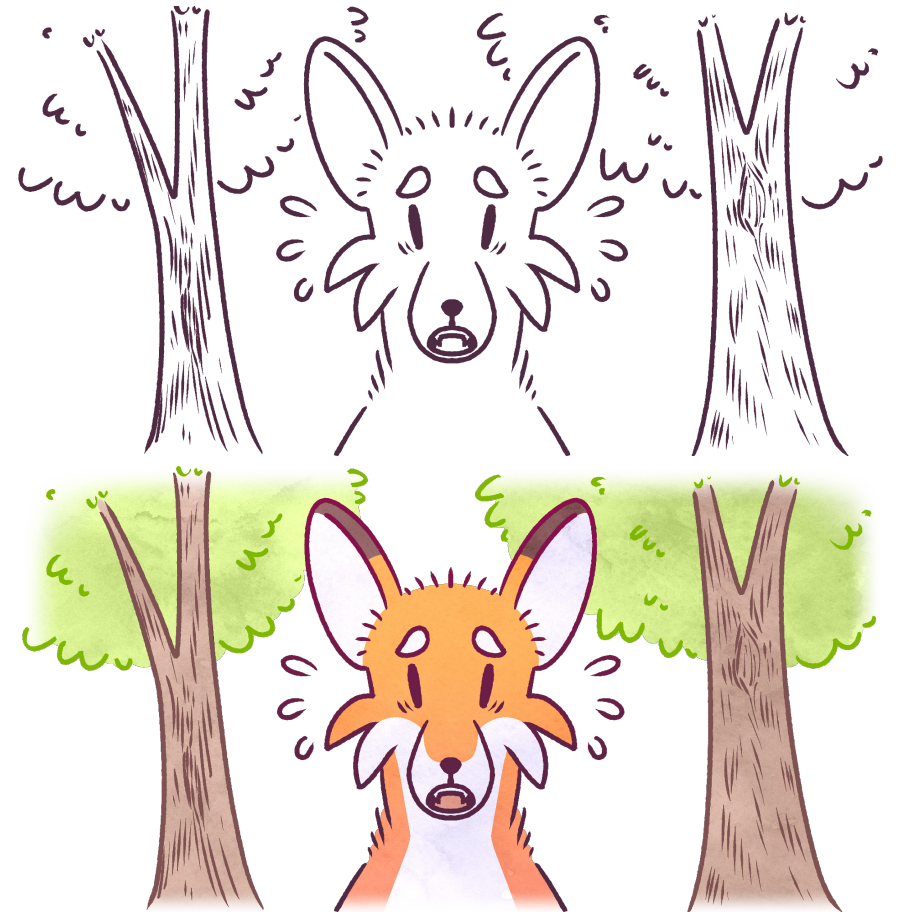
Each textual passage of CUBURBIA is accompanied by my own digital illustrations created in Paint Tool SAI. The art style of CUBURBIA is inspired by Chelsea Cardinal's fox illustrations in George Saunders' [Fox 8](#).

I was also inspired by Beatrix Potter's illustrations in her children's stories, so I emulated a similar watercolor-esque feel using a Shade/Shine layer with a watercolor texture. Each of the images are also contained within a feathered-edge border so that they naturally fade into the background.

Here is some of my process work for CUBURBIA's illustrations, as well as the general color scheme.



28



29

Selected Screenshots



Play

Achievements

About

© 2024 Vibhu Venkatesh. All Rights Reserved.

Quit Game



At the woodland's outskirts, your cubs' scents branch off
into a massive human neighborhood.

You are a red fox raising eight curious cubs.

Please type in your cubs' names below!



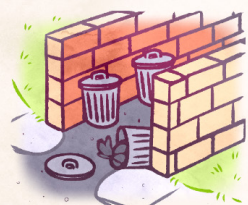
Appleseed



Sedge



Fog



A brick-walled alleyway **full of**
trash bins.



A backyard, from which you
hear **the lively clucking of**
chickens.



The driver pulls over, gets out, and approaches you both.
Their face drops as they notice the injured Primrose. The
driver speaks to both of you in a soft, reassuring voice.



The infected fox approaches Plum, ready to chase the cub
away from the garbage bin. Instead of backing away, Plum
gets ready to fight up close.

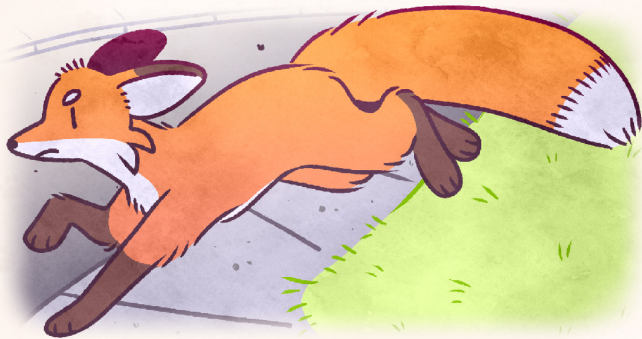
What will you do?

Distance your cub from the infected fox

Allow your cub to fight



You guide Appleseed home to the woodland, relieved that your cub has learned to be more cautious in urban environments.



Then, you set off to **search for your other cubs.**



General Setting



CUBURBIA takes place in the modern day, set in a UK-inspired suburbia during the summer. At the center of these winding neighborhoods, there is a shrinking half-acre of woodland.

You and your cubs have always lived in this woodland, and you have done your best to keep them within this sanctuary. With humans clearing your forest home, however, it is becoming difficult to keep your cubs away from the neighborhoods beyond the trees.

After they finally wander off, you must traverse the suburbs and bring home your cubs! As you search the urban landscape, you will visit a variety of places, as well as friends and foes that reside within them.

The Woodland



The woodland was once lush with dense trees and plentiful vegetation, but humans began clearing the land to make space for new homes within the suburbs.

You and your cubs live in a den away from the noisy human activity, in an undisturbed part of the forest. Although this den will not be a forever home, you will keep your cubs safe there until the humans clear that part of the forest too.

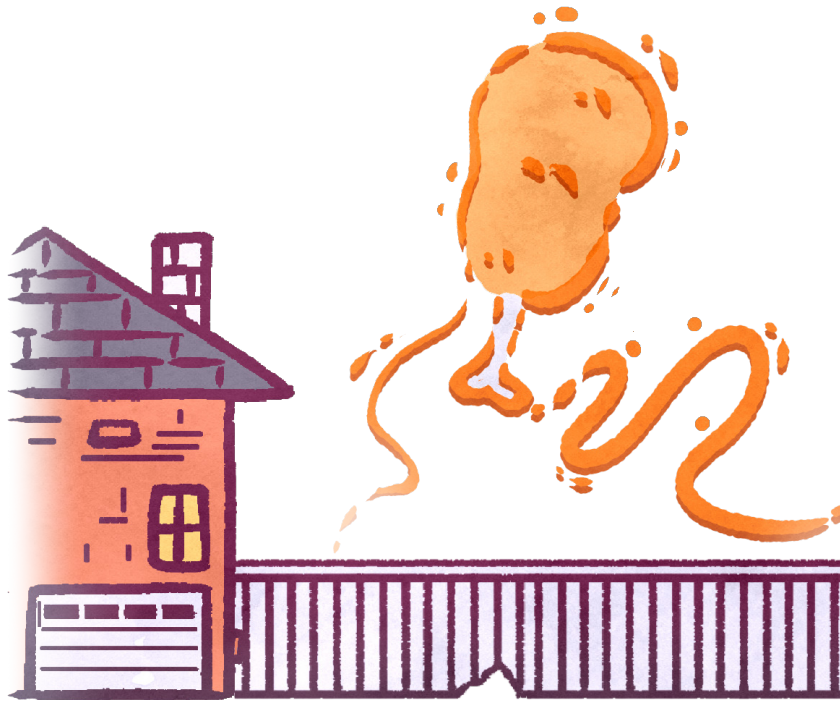
The Suburbs



Down a slope from the woodland's edge lies the landscape of the human neighborhoods. You have ventured into suburbia quite a few times in the past, but you kept away from them after your mate suddenly disappeared after going to find food in the dangerous environment.

Through the expanses of busy roads, yards, alleyways, and human homes, you set out to find your cubs and meet other urban inhabitants along the way.

The Meaty Backyard



This large backyard is a popular location with urban foxes, who already wander too close to humans due to being fed by them. Due to the foxes' destructive digging, pungent scent-marking, and messy rummaging in the yard, the owner of the home wants them gone.

Strangely enough, this yard does not usually smell of meat, but the new scent seems to bait foxes into the yard.

The Garden



This garden is tended to by a woman who has a passion for growing vegetables and fruits and distributing them to the neighbors. She works hard to care for her crops every day.

Lately, rats have infested the garden in large numbers and have started laying waste to her crops. Determined to protect her plants, the gardener protects the garden with protective netting and scatters rat poison in the soil below.

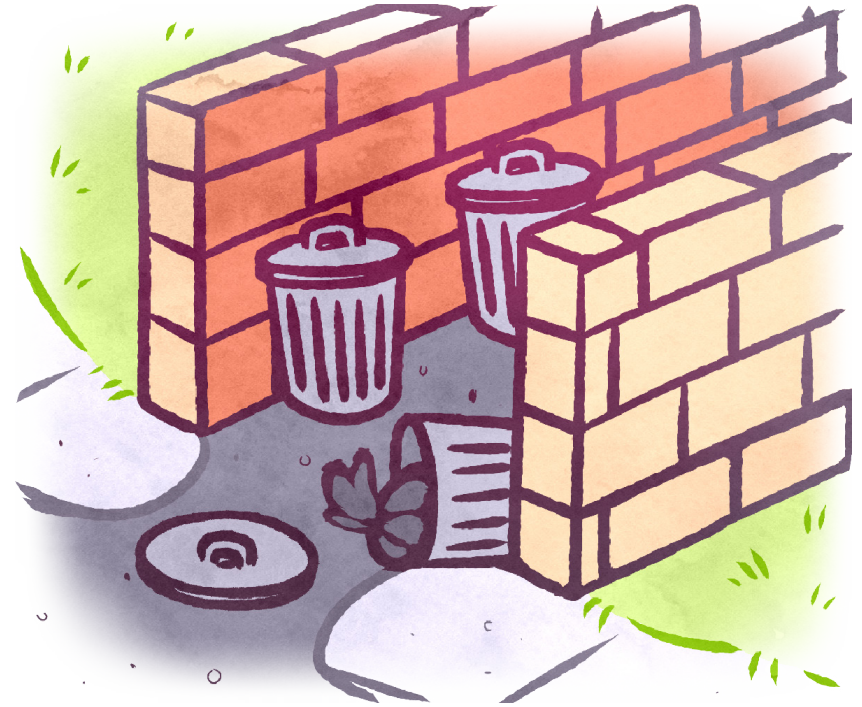
The Dog's Lawn



This front lawn is always scattered with dog toys. The large, lively dog who lives in the house nearby has access to this area through the dog flap at the front door.

Although this dog is playful with his beloved owner and other dogs, he is fiercely protective over his toys and does not like when other animals try to take them.

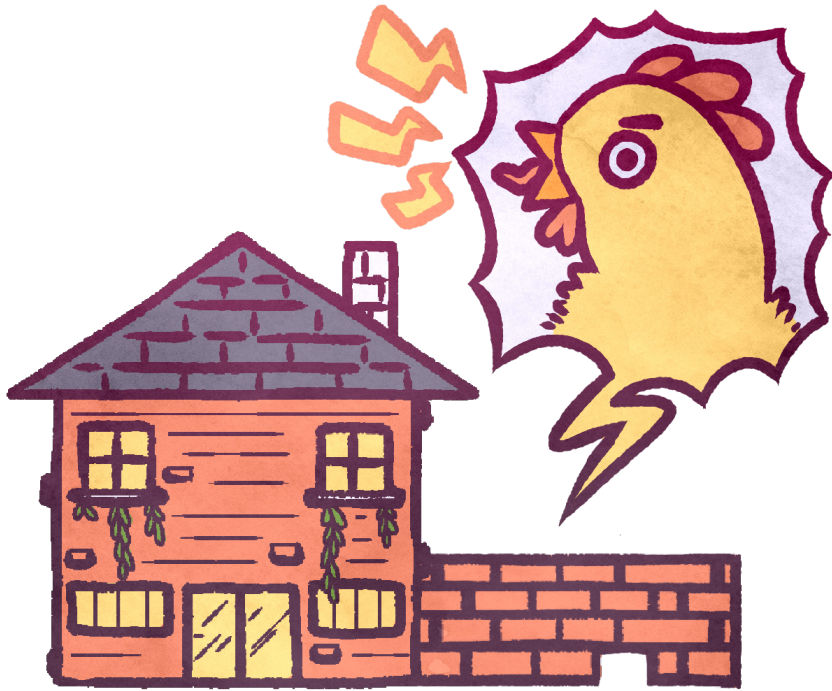
The Alleyways



The alleyways throughout the neighborhood are gathering spots for many different urban animals, especially foxes. With abundant, delicious garbage in the bags and bins, the foxes flock to these alleyways in large numbers.

These large crowds often result in infighting among visiting foxes, as well as the spread of disease from the close contact.

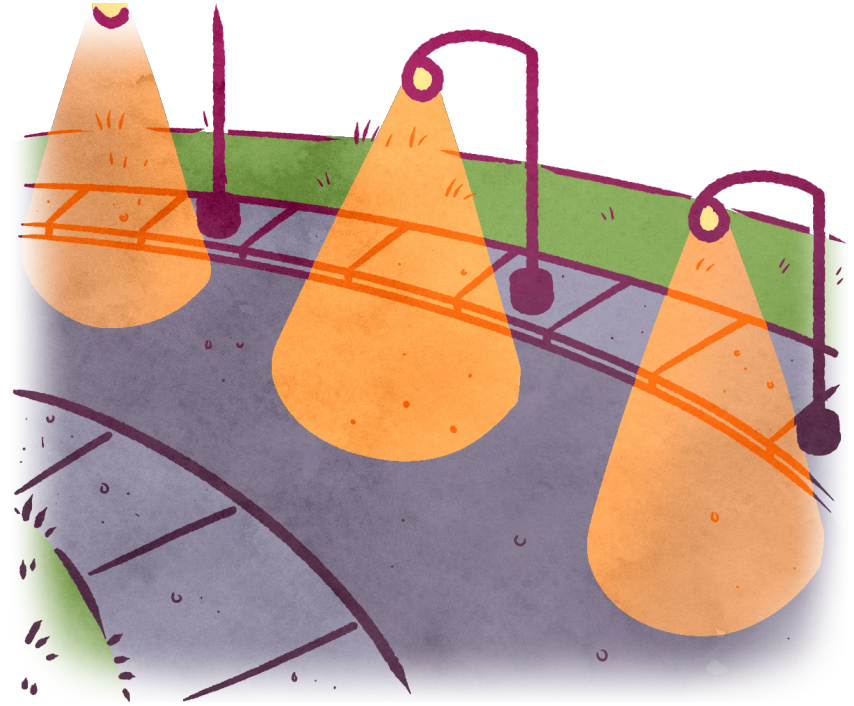
The Chicken Yard



This backyard is always lively with chickens, who run about in the daytime and return to the safety of their coop at night.

These chickens are often the targets of urban foxes looking for a meal, but their keeper is fiercely protective of them and rushes to their aid when they cluck with alarm.

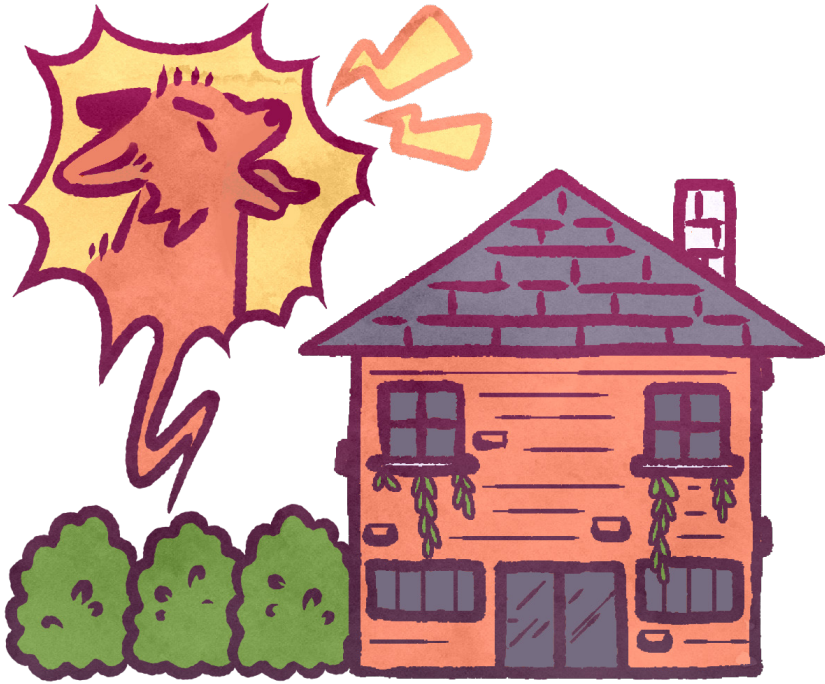
Residential Streets



The streets of this neighborhood are usually well-lit by streetlights after dusk, but some of the older lights tend to flicker unpredictably.

The roads are not usually busy at night, but commuters coming back from a long day at work often struggle to see with the flickering lights.

The Foxyard



No one is currently living in this house, so the backyard and its bordering hedges are quiet places for wildlife to dwell in. In fact, young urban fox cubs have begun investigating this area as a potential territory.

Young foxes frequently quarrel over this territory, and only the most assertive cubs can maintain a presence in this yard.

The Feeders' House



This house is another gathering spot for urban foxes. The couple who lives here frequently leave raw meat in a bowl on the lawn, and nearby foxes eagerly snatch up the easy meal.

Although these people are kind to the foxes, they do not understand that the animals' wild nature and attempt to get in uncomfortably close contact with them.



The Parent Fox(You)



You are an adult red fox caring for your eight cubs in the woodland. You used to frequent the suburbs surrounding the woodland to search for food, along with your mate.

One day, your mate's sudden disappearance after venturing into suburbia left you struggling to look after the cubs alone. Since then, you have become cautious about your children meeting the same fate and keep them safe in the woodland.

Now that your curious cubs have run off into the suburbs, you must re-enter this promising, dangerous environment to help them survive!

Appleseed(Cub #1)



Appleseed is wary around humans, and prefers to stay away from them.

However, when Appleseed spots a delicious meal left out by humans, the cub jumps at the opportunity to take it...even if danger is lurking in the shadows!

Sedge(Cub#2)



Sedge is an excellent forager and especially loves the taste of wild raspberries!

Sedge has the potential to be a strong hunter but usually prefers an easy meal, even if something seems wrong about the vegetables and fruit the cub finds.

Fog(Cub #3)



Fog is always looking for a playmate, whether that is another fox or a different animal!

However, the cub often struggles to distinguish between friendly and hostile animals.

Plum(Cub#4)



Plum lingers around places where food is abundant, and the cub is very protective over each meal. Of course, other urban foxes also flock to these areas.

With a reactive personality, Plum sometimes jumps to fight over resources with opponents who are stronger and dangerous.

Bracken(Cub #5)



Bracken is particularly small and tends to squeeze into tight spaces in search of food.

Though Bracken gets into confined areas easily, the cub sometimes struggles to find a way out!

Primrose(Cub#6)



Primrose is a natural hunter who has sharp eyesight, even in the absolute darkness of night.

However, when Primrose is focused on nearby prey, the cub becomes completely inattentive to the rest of the surroundings!

Amber(Cub #7)



Amber is a cub with a passive, conflict-avoidant nature. Despite having physical strength, Amber has never handled fights alone and often gets pushed around by others.

This cub relies heavily upon you and your other cubs to handle territorial conflicts, but wants to develop more confidence to take on rivals independently.

Mulberry(Cub#8)



Mulberry is trusting of anyone who provides food, and that includes humans.

Although Mulberry is happy to approach trusted individuals, the cub becomes startled at sudden, unpleasant movements and reacts defensively as a result.

Other Urban Foxes



During nighttime, this neighborhood's streets are active with fox life! These urban foxes usually gather around areas where food is readily supplied.



Some of these foxes have contracted diseases such as sarcoptic mange. In food-plentiful areas, overcrowding and infighting causes the other urban foxes to come in contact with infected individuals. Upon close proximity, the sarcoptic mites burrow into other foxes' skin.



Some urban foxes are raising their litters of cubs directly within suburbia. Particularly bold cubs are ready to challenge any unfamiliar cubs who interfere with their territorial claims.

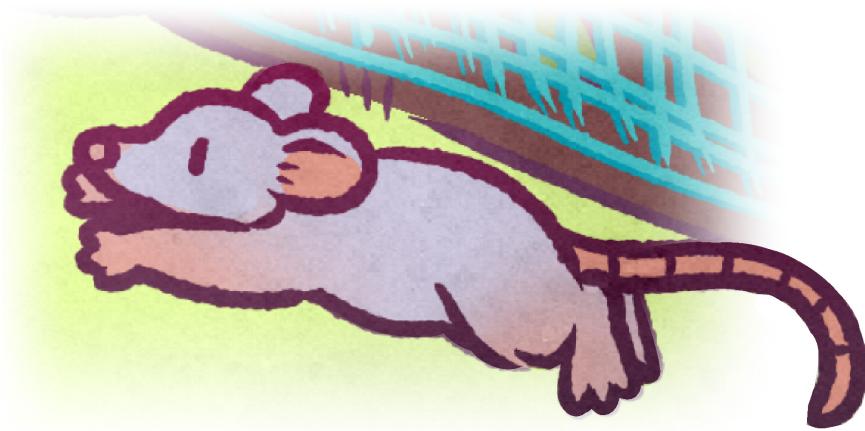
The Gardener



The gardener prides herself in her vegetable and fruit garden, from which she harvests crops to use in her cooking and to give to the neighbors. She tends to her garden every evening.

Lately, she has had problems with rats wreaking havoc upon her crops. With no predators around to catch them, she resorts to using protective netting over her plants, as well as scattering rat poison pellets to keep the rats at bay.

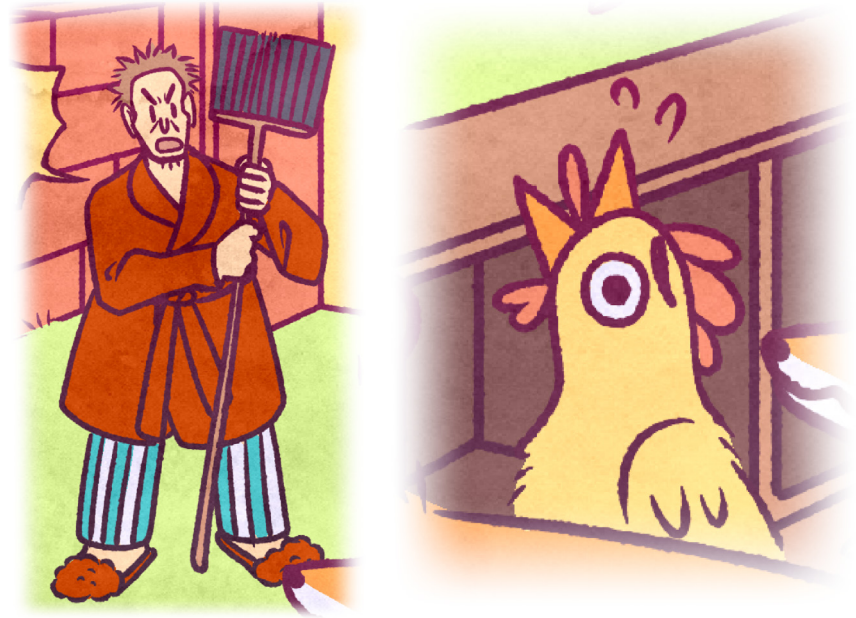
Garden Rats



Rats run about in great numbers through the neighborhood, but they especially linger around the gardener's vegetable and fruit crops because of the food and shelter of the leaves.

With urban foxes and other predators being too busy eating from trash bins and humans' offerings, the rats go unchecked in this neighborhood.

The Hens & Their Keeper



The chicken keeper cares deeply for his hens' welfare, letting them roam the yard during the day and locking them in the safety of the coop at night.

The chickens are not afraid of cubs, but they panic in the presence of adult foxes. The hens have had past encounters with foxes who prey on them, so they know how to alert their keeper to come to their rescue when a threat is present.

The Hound & His Owner



This large, lively foxhound is protective of his owner, his front yard, and his toys. Although he was never raised to be a hunting dog, he instinctively goes after wild animals who happen to intrude within his range.

The human is aware of his dog's tendencies and tries to keep him under control. However, on some nights, his dog manages to bolt outside before he can secure the dog flap on the front door.

The Pest Controller



The pest controller was hired by a homeowner who is sick of foxes laying waste to his backyard.

Perched on the second-floor window of the house, this pest controller keeps an eye out for fox visitors who happen to linger in the yard.

The Driver



This driver works long hours and only returns home at night. Tired from the day's work, they often struggle to see parts of the road that are obscured by darkness beyond their car's headlights.

Their usual route home includes a residential street, upon which the streetlights often flicker on and off randomly.

The Feeder Couple



This couple regularly feeds the urban foxes that come to visit, leaving a bowl of raw meat out on the lawn.

They are kind to the foxes who stop by, but they often forget these animals' wild nature and attempt to get too close to them...which could potentially provoke an aggressive reaction!



The Future



Working on CUBURBIA has introduced me to the potential of interactive hypertext fiction, and I am now thinking about how I can tell my future stories about ecology and responsible wildlife interaction using similar web-based mediums.

Upon finishing CUBURBIA, I plan to leave it up for people to play for free on itch.io with optional donations. I may also update the game eventually with additional illustrations and information should I feel that is necessary. This process book will be available on my website along with the game for those curious to see.

I would also like to reach out to fox enthusiasts and wildlife organizations with this game as an educational, story-driven tool for teaching people about human-wildlife urban relationships.

I also am thinking about reaching out to some animal fiction or children's fiction publishing companies with a choose-your-own-adventure book version of CUBURBIA. I would also reach out to these companies with the original digital game too, but I also want to build my children's book illustration portfolio and reflect that in my own work.

Now that I have comprehensively explored the lives of urban red foxes in the UK, I am thinking about other fox species around the world and how I might be able to approach their own regional issues in my future works.

I always want to reach audiences who are passionate about learning about animal behavior and adaptation, and I will continue to create work that promotes respect and responsible intervention with our backyard wildlife.

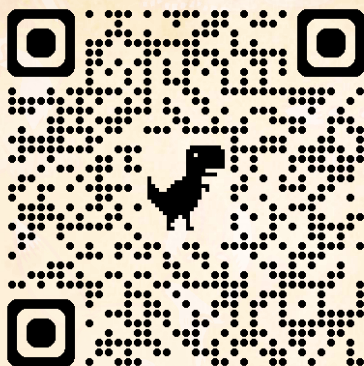
For now, please enjoy playing CUBURBIA!





Play CUBURBIA Now!

<https://vibhufox.itch.io/cuburbia>



CUBURBIA is a hypertext adventure game in which you, a red fox, must find your eight cubs who have wandered into a human neighborhood.

This process book documents the inspirations, development notes, and worldbuilding information that influenced the process of making CUBURBIA!



Vibhu Venkatesh is illustrator, creative writer, bookmaker, and fox enthusiast.

With his passions for ecology and wildlife education, Vibhu aims to teach readers about what they can do to appreciate and help their own backyard wildlife.

For more foxes, visit vibhu-venkatesh.com!