QUEEN OF A SUN-DRENCHED LAND

An Undergraduate Research Scholars Thesis

by

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ABSTRACT

Queen of a Sun-Drenched Land

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Queen of a Sun-Drenched Land centers around Ramona Santos Riojas, a graduate student of animal science at the University of Sao Paulo. She enjoys her studies and is eager to discover the newest innovations in the field of agriculture, but she still feels guilty about the life she left behind at her family's farm on the Parana River floodplain, especially considering that her father took her leaving for school as a personal betrayal. When her father's death forces her to return home and exposes the truth, that the farm is failing, in part due to a devastating disease sweeping through their cattle herds. She is forced to go to Tarleton State University in Stephenville, Texas, following a professor she met in the past who may have clues regarding the disease. Once in Texas, she has to contend with a vastly different culture, language barriers, and isolation—in addition to the fact that she can see and interact with entities no one else can see, figures from myth and lore. She will eventually discover that she is more closely linked to the myth of a lua, the moon goddess, than she ever imagined, and this special link could be the key to saving the farm. This creative work examines the way traditional Brazilian culture influences the lives of modern Brazilians, and also how living and studying in a culture different from one's own can affect a person's connection to their home as well as psychological wellbeing.

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SECTION I

RESEARCH QUESTION/MOTIVATION/ARTIFACT

The idea for this research project came to me gradually, after several weeks of interacting with friends who were international students from Brazil. I noticed and really admired their way of viewing the world, which was overwhelmingly positive despite the fact that they were in a situation that I myself would find discouraging, to say the least. As I got to know them better, I learned more about Brazilian culture as compared to American, and began to wonder if these modern cultural differences could be traced back to traditional customs, stories and folklore. This led me to begin conducting research into these traditional stories. I noticed several similarities between figures in Brazilian folklore and my Brazilian friends, for example the way extensive kindness and generosity, particularly toward animals and nature, was considered particularly admirable and worthy of reward. The first scene in Queen of a Sun-Drenched Land is adapted from a folktale that exhibits this pattern; the central character in that story is rewarded for her kindness by the moon's saving her lover. The character of Ramona is inspired in part by my Brazilian friends and in part by various Brazilian folk heroines, because I wanted her to be a living example of the way the old and new mix in Brazilian society, and the way certain qualities like kindness and love of nature have remained the same. In writing the character of Ramona I not only had to research Brazilian myths and folktales but I also had to learn more about modern day Brazil, including the sociological and psychological concepts that are at play there. I wanted to learn more about the culture that my friends and other international students had left behind in Brazil, and create a character who I would place in a similar situation. This was in an effort to

understand what they were experiencing and view the experience of being an international student at a Texas university through a Brazilian cultural lens, to the best of my ability to do so.

In a study for the Journal of Counseling & Development, Sakurako Mori writes "Being faced with a new set of basic values and beliefs, international students are continually challenged to accommodate themselves to a variety of cultural differences." More also establishes that international students in the United States, regardless of their place of origin, have a common identity thanks to their shared experiences, one of the most significant of which being the shared experience of trying to successfully operate in an American society while still being shaped by the traditions, stories, and practices of their home countries. Mori also describes trouble making friends and general difficulty with social relationships as another common thread connecting international students from various countries studying in the United States. According to Mori, "In America's highly mobile, individual-oriented society, the concept of friendship is much less permanent and lasting than it is in most other cultures." This different concept of friendship is something that Ramona struggles with in Queen of a Sun-Drenched Land. Her concept of friendship is more like family, and uncertainty about who to trust and who to count as a friend adds more stress to Ramona's life in Texas, although she eventually is able to make connection despite those cultural differences.

It was necessary to consult previous research into Brazilian culture, folklore, and in particular Brazilian literature, as I was unfamiliar with each of these things at the start of this project. In the words of M. Elizabeth Ginway, "An initial list of the most recurrent cultural myths would include Brazil as a green, tropical paradise; Brazil as a racial democracy; Brazilians as a sensual and non-violent people; and Brazil as a country with potential for national greatness or grandeza, as well for its shadow side, malandragem" (467). This notion of cultural myths,

particularly applied to literature, provided a good basis for my portrayal of Brazil, but I also wanted to challenge this sort of idea by examining the perspective of a young, modern girl. For this reason it was imperative to create a character who was relatable and realistic; since I was worried about being able to authentically manufacture a character with a national identity of a country I had never been to, so it was even more important that she exhibit those characteristics that are common with all young women, particularly students. Lowell Mick White says of writing a successful character, "I also seem to work animals into a lot of stories: many people share their lives with animals of one kind or another, and this can perhaps give an extra level of insight into my characters" (5). The connection between Ramona and her animals features heavily into the story, which hopefully serves the dual purpose of making her more believable as a character, and provides a connection to the cultural myth of Brazilians as being in touch with nature.

I drew inspiration from the novel The Bear and the Nightingale by Katherine Arden, which also deals with the connection to traditional myths and folklore in the midst of a changing world, though it takes place in Siberia rather than Brazil. But a crucial consideration of this project is that I will never be able to really understand my friends' experience in the way that they do, and so this work will always be from an outsider's perspective. However, I found over the course of writing the story that this was helpful in some way, because it is somewhat of a flipped version of the experience of most international students, which gave me a little bit more insight into what their experience must be like, though I do not claim to fully understand the kind of isolation and other difficulties they experience.

This creative work serves as a culmination of my research into traditional folklore of Brazil, modern day Brazilian culture and practices, and the psychology of the experience of international students in the U.S. The story is an exposition of the interaction of all of these things, plus the unique circumstances of being an international student at a Texas university. Ramona's experiences provide a living example of all of those things at work, and she emerges from the story wiser, stronger and even more connected to her cultural heritage than before, proving that cultures can interact successfully without one necessarily overtaking the other, and in accordance with what I observed in my friends from Brazil: although the experience of being an international student is undoubtedly difficult, if done right it can be overwhelmingly positive and enriching.

SECTION II

LITERATURE REVIEW/BACKGROUND/HISTORY/SOURCES

In his beloved book of advice for new or struggling creative writers, *Steal Like an Artist*, Austin Kleon instructs "Don't worry about doing research. Just search." (29) Although I began the process of conducting research for my novella, *Queen of a Sun-Drenched Land*, before I ever read *Steal Like an Artist*, I unknowingly followed Kleon's advice. As I previously explained, the idea for the story came from my experiences and people I encountered in my real life, but without the research I consulted throughout the writing process, the novella would not exist. I drew ideas, inspiration, and information from a variety of different sources, which were representative of different disciplines and mediums. From anthologies to scholarly articles, I have attempted to internalize the themes and data from these pieces of literature and combine them to produce a story that is compelling from an aesthetic standpoint while also informative as a research project.

The bulk of my research has been concerned with Brazilian myths, legends and folktales. The novella opens with Ramona's Aunt Daiane telling her a story about her kind and beautiful ancestor, and the part she played in the creation of the Amazon water lily, a plant that is almost universally associated with Brazil, particularly the Amazon River and the Amazon Rainforest. This story was adapted from "The Story of the Vitoria Regia, the Amazon Water Lily", from Livia de Almeida, et. al.'s *Brazilian Folktales (World Folklore Series)*. I was inspired to borrow from this traditional story because the titular flower conjures feelings of beauty and natural splendor but also of wildness and savagery, and perhaps a little bit of magic. I thought that the water lily would be a striking image with which to begin the story and set the scene. It also is a

little bit representative of Ramona's background, as she has grown up well acquainted with both the wonder of nature and the unpredictability of magic. I adapted the story as told by de Almeida to *Queen of a Sun-Drenched Land* by having it told secondhand, using Aunt Daiane as the storyteller, rather than a firsthand account. In Aunt Daiane's version, the main character, the brave woman who makes a bargain with the moon, is Ramona's ancestor, and she is named Ramona, instead of Caititi, which is her name in the de Almuida story. I did this because when I was young, and I used to stay with my grandfather, he would tell me made-up stories about a princess, and he always gave the princess my name, which helped me to feel a real connectedness to the story he was telling. I imagine Aunt Daiane doing the same thing in every story she has ever told Ramona, leading Ramona to feel a special connectedness with the characters in the story which then morphs into her experiences with entities from folklore in the real world.

I also drew inspiration from another story in the de Almeida anthology, or, rather, from an entire section of that anthology. There is a section titled "Pedro Malasartes, the Trickster". This collection of four stories follows the antics of Pedro Malasartes, an imp with one foot who always wears a red cap, as he perpetrates a series of sometimes harmful, but usually harmless pranks and works of mischief. I was immediately drawn to this character and saw him as a potential foil for Ramona, who tends to navigate the world using logic and discipline.

Malasartes, on the other hand, is an agent of chaos. He seemed fitting as a villain also because much of the action of the story occurs because of a dawning chaos in Ramona's life, first with her father's death, then with the cattle disease that devastates her ranch and her livelihood. I was definitely intrigued, and so I searched for other resources with information on the character of Pedro Malasartes. This research led me to an article on Brazil's national travel website, titled

Brazil – Mythology and Folklore, by Amelia Meyer. The article also contained information about the trickster imp, only he went by the name Saci Perere, rather than Pedro Malasartes. The article had numerous helpful details about Saci Perere's origin and motivations. Meyer postulates that the character of Saci Perere first appeared in Brazilian myth after the European colonization of Brazil. It is believed that Saci Perere was adapted from a story told by African slaves, and he originally was credited with causing mischief on the farms, ranches, and plantations where the slaves worked. He remains a popular figure in Brazilian culture even today. I wanted to include this character in the novella because I've always been drawn to the idea of an entity who creates mischief for the sake of mischief, rather than for any nefarious purposes. That is part of why I allowed Saci in my story to be part of the reason Ramona was able to solve her problems in the end. Although he is a force for chaos, he is not an evil character, and he chooses to help Ramona, perhaps out of selflessness of maybe just for the fun of it. I chose to call him Saci rather than Saci Perere or Pedro Malasartes because it just seemed to roll off the tongue easier.

The overall structure for the story was inspired by Katharine Arden's novel, *The Bear and the Nightingale*. In that story, the main character is also able to see and interact with figures from fairytales and legends, although the story is set in Russia rather than Brazil, and in the early sixteenth century, rather than modern day. However, when I read that novel a few years ago, I was struck by how the main character still faced real-world problems, despite having access to magic and legend. Her supernatural abilities certainly help her, but in the end it is her own intelligence and skill that allows her to triumph. I wanted Ramona to be the same way, which is why in the end she is not saved by magic, which is something I considered doing, but by science, which she has dedicated her life to studying.

I gathered information and ideas from numerous other sources besides these main few; however these were the ones that most influenced the plot. I also tried to tie in elements of psychology, animal science, and language, in order to create situations and characters that resonate with real people, for all that they are fictional products of my own mind.

SECTION III

EXPLANATION OF EXHIBIT/VENUE

I exhibited my research project at the Undergraduate Research Symposium on February 27, 2019, at 9:00 a.m. I presented to a mixed assembly of undergraduate students, fellow Undergraduate Research Scholars, faculty, including my faculty advisor, Dr. White, and other observers. I began the presentation by explaining my involvement in the Aggie Creative Collective program, talking about the application process and the program requirements. I explained what drew me to my research topic in the first place. I explained that, as a double major, I was really interested in doing research that combined my two areas of study into one project. The fact that I was able to do a creative writing piece as my research project was an advantage in this, because it allowed me to use my studies in English. However, I wanted to go beyond just the composition aspects and research how language impacts identity, which I believe I was able to do through this project.

As I explained during the exhibition, I wrote "Queen of a Sun-Drenched Land" because I was interested in exploring the psychological implications of being cut off not only from the language but also from the stories and myths of one's homeland. As an English major, I was interested in how stories, which make up so much of the fabric of a culture, can shape someone's identity, to the extent that stories become living entities. I wondered if someone who was so heavily influenced by the mythology of their specific culture would find it more difficult to define herself once separated from that. As a psychology major I know how important one's social identity is, and how difficult it can be to cope if the idea you have of yourself is challenged. I wanted to and tried to explore both of those concepts through my research and in

my creative artifact. Following this explanation, I read a selection from the beginning of my creative artifact.

The entire exhibition lasted a little over nine minutes. I think my biggest concern with the entire exhibition was the timing. I ended up concluding my reading at an earlier point in the artifact than I was planning on, due to concerns over exceeding the 10 minute time limit. I think I could have shortened my introduction, or just planned on doing a shorter selection for my reading, as I am worried that the stopping point was a bit abrupt.

Following the presentation, the two other presenters and I took a few questions from the audience. I was asked to describe my research process and explain how that research translated into a creative piece, as opposed to an academic essay. I explained that I had at first found it challenging or disconcerting to apply research to creative work, especially considering I was used to writing more rigorous, academic research papers, but that I had done extensive reading not just on the main focuses of my research, which were language and psychology, but on more peripheral aspects as well. I believe that this not only helped with my own enrichment, but makes the story more compelling. I believe that if someone were to read my creative artifact in its entirety, they would be left with a more complete idea not only about Brazil and Brazilian folklore, but about a wide variety of topics mentioned in my work. I explained this to the audience at the exhibition.

I was also asked if I planned to publish the story, to which I replied that it was not in my current plans. I see it as more an exercise for my own knowledge and enrichment, as well as that of anyone who might potentially read it.

I received feedback from two members of the faculty who were assigned to be active listeners. They enjoyed my work, but suggested I do a better job with making eye contact, and

try to speak with more inflection. They also suggested that I speak more to the significance of the research aspect of the project, rather than just the writing aspect. All the feedback and suggestions I received were extremely helpful, and will be taken to heart for future presentations.

SECTION IV

REFLECTION

This has been an interesting process for me, because, although I didn't realize it when I first embarked on the Aggie Creative Collective program, the process of conducting and integrating research for a creative work is different than the process of conducting and integrating research for an expository, persuasive, or analytic paper, all of which were styles of writing I had more experience with at the beginning of the program. I was, as most college students most likely are, extremely familiar with citing sources, using in-text citations, and formatting quotes in accordance with the rules of MLA, APA or other formatting styles, but knew that those same techniques would not be applicable to this project, due to its creative nature. So, as I began the program, I found myself spending a lot of time conducting research into a variety of subjects relating to Brazilian folklore, Brazilian Portuguese as a language, and the psychology of international students, but I also found myself reading about Brazilian public primary school systems, highways, and agricultural practices in Brazil and across South and Central America. I conducted research by utilizing the Texas A&M library resources, including discussing available research options with a librarian specializing in anthropology and humanities, utilizing the library's "Get it for Me" tool to acquire research materials from other universities, and using the library databases to find scholarly articles and other sources. Although I was making progress in terms of conducting research and collecting information, I was still unsure of how I would be able to integrate that research and that information into my creative artifact, since it would be unnatural and would go against the discipline of creative writing to include in-text citations and direct quotes. As I progressed further in the program and began to

work on the first dew drafts of my creative artifact, however, I found that having conducted such extensive research made it easier to write with authority and gave my work a sense of authenticity, particularly in later drafts. I felt like I was more easily able to slip into the persona of the character I was trying to write, and I found that her voice came more and more easily to me the more research I did. By the time I reached the final draft, I had not only done more research for this artifact than for any research paper I had previously written, but I also felt that, if one were to read my entire artifact from start to finish, they would have a much more complete mental picture of the subjects discussed in my creative artifact, namely Brazil and its traditions, folklore, language, and people, as well as the psychological difficulties, such as loneliness and threatened sense of self, that accompany being an international student in the United States and particularly Texas, from Brazil or otherwise. I integrated the information I learned through research into all aspects of the story, but in my opinion, the most tangible way I used research in my artifact was in the dialogue, particularly between Ramona and her aunt Daiane and between Ramona and her brother, Alex. The story opens with Ramona's aunt telling her a story about how the water lilies came to be. I adapted that story directly from a real folk tale that I came across during the research process. Similarly, all the mythological creatures in the story, particularly the character of Saci, are directly adapted from Brazilian folklore. I attempted to not only use the names of these characters, but also to expound upon their backstories, not necessarily by telling these stories outright but by placing them in settings and matching their behavior to the Brazilian mythological origins of these creatures and figures.

The aspect of research that is evident when Ramona speaks with her brother, Alec, is the research I did into the Brazil and Brazilian culture of the present day. When she and Alec discuss school, for example, both the secondary, or high school equivalent that they attended in

Ivinhema as well as university, the reader gets a relatively small glimpse at the extensive amount of research I did into not only where Ramona and Alex might have gone to school but also the structure of the school system in Brazil, what students typically pay, and many other seemingly insignificant details that I had to know in order to write a character who had been through these things and had the experiences I was describing. I also had to research Brazilian nicknames and terms of endearment, as these terms are used by Ramona in reference to Alex and by Daiane in reference to Ramona throughout the story.

There is also evidence of the research I did at the end of the story, when Ramona discovers the solution to the disease that is preying on her family's cattle and threatening to destroy their ranch and their livelihood. As an English and psychology major, I was largely unfamiliar with the pathology of livestock diseases and ailments, and so writing this portion of the story necessitated some research. While the description of disease pathology in the story is barebones to say the least, it is an accurate description of how a disease of the type discussed (which was made up for the purposes of the story) progresses, and how such a disease could be cured or at least immunized against.

The celebration of my creative artifact was a particularly helpful experience, not only because it gave me the opportunity to read my creative out loud and, in that way, identify some bad writing habits that I would not have otherwise noticed (although this was extremely helpful, and led me to make some important stylistic changes to my artifact), but also because it gave me the opportunity to really examine my research process. I was forced to explain my research process and give an explanation in my own words of creative research and what it means, which allowed me to fully realize many of the aspects of my research process that I discussed above. I was asked during the Q&A portion of my presentation at the URS Research Symposium to

describe what creative research was and how I applied it to my project, and the answer I gave then was largely the same as discussed in the above paragraphs.

If I were to do this project again, I think the biggest thing I would do differently is that I would have more faith in my artifact and my writing ability. I spent a lot of time worrying over small details in my writing, losing sight of the bigger picture, which was that I had created a complete novella, and it was the longest piece I had ever written. I have learned many new techniques through my participation in this program, but perhaps the most important thing I've learned is that I am a better writer than even I realized.

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CREATIVE ARTIFACT

QUEEN OF A SUN-DRENCHED LAND

My bags are finally packed. It's strange, that after so many hours and checklists and too-close-to-call decisions, for example, "Should I pack my blue skirt that my father bought from me and I wore when I kissed our second-closest neighbor's third-oldest son during *Carnivale* when I was fifteen? Surely it will be out of style by now, especially in America. Do they even wear skirts in America?" After so much work and so much worry, all I have to show are two pieces of luggage: the worn-out backpack that I carried to class throughout the entirety of my university career, straps that were once baby blue stained yellow with old sweat, and an ancient suitcase of cracked brown leather. The leather, I'm told, was once shiny and supple, and the suitcase once belonged to my aunt Daiane.

A breeze ruffles the hair at the back of my neck. It is almost enough to be refreshing, almost dispels the humidity for a moment, and it smells like the river: lush, green, and alive. The river smells like new tadpoles, freshly hatched, and like flowers in bloom. It's heady, and it makes me feel drunk on the overabundance of growing things. It also reminds me of my aunt Daiane, though to my knowledge she has never owned the river, like she did my suitcase. And in reminding me of my aunt, the river also reminds me that I have one last goodbye to say, the one I have put off the longest and dreaded the most.

For all that she doesn't own it, My aunt Daiane seems to have some claim on the river, or perhaps it has some claim on her; if anyone is ever in doubt as to her whereabouts at any given time, she can usually be located by following the river. She may sleep in our guest room, but she

lives on the riverbank. I leave my bags on the front porch, and set off along the well worn and grassy path toward the banks of the Parana River.

I follow the river according to its natural course, walking on a gently sloping hill that borders the steeper bank. Long blades of soft grass cushion my feet as I walk, and reaching up to tickle my calves. I am enjoying the sun on my face and listening to the splashes and gurgles of creatures in the river, and the rustling and cooing of creatures in the forest on my other side. I walk until I begin to feel prickles of sweat on my neck, and then I round a gentle bend, and I see my aunt.

The name Daiane is from the Portuguese for beauty; and to me the sound of my aunt's name conjures up images of early European explorers setting foot for the first time in our wild and beautiful homeland, and feeling both awed and afraid. My aunt is kind of like that. She is beautiful, almost painfully so, with luminous red hair that harkens back to some European ancestor, but with the liquid brown eyes and coffee skin of a native Brazilian. Her beauty is nearly matched, however, by the air of wildness, almost ferality, that she possesses. My aunt Daiane is less a native princess and more a pagan goddess, a force of nature neither cruel nor kind, but wild and free. She is gathering *vitoria regia*, water lilies, from the river's surface, crouched on the bank and leaning dangerously far to reach. As I draw close to her, I see that she is smiling, like she knows I'm there, though my approach was nearly soundless and she never turned from her task to look at me.

"Have I ever told you the story of how the water lilies came to be?" she asks me, though she still has yet to turn around. She has told me, at least a thousand times, but my aunt is unrivalled as a storyteller, and to turn down a chance to hear her would be beyond foolish.

"I think you might've, but it'd probably be best to tell me now, just to be sure," I am grinning as I say it, and thoughts of saying goodbye are momentarily forgotten. She turns, setting her basket of flowers aside and gracefully settling cross legged on the grass. Finally, her brown eyes meet mine, and though her face doesn't change, I know I've given the correct answer.

She begins, as she always does: "It was a long time ago, when the sun was new and Lady Moon walked among us. My ancestor and yours, the daughter of the village shaman, was gathering smooth rocks at the banks of the river, to make into lovely beads and ornaments, for the betterment of her village. For our ancestor was a rare beauty, one who did not wish to hoard her gifts all to herself, but through gifts and smiles and kind words, she shared her beauty with everyone she met, so that everyone she met took a little bit of her light with them, wherever they went."

"What was her name?" I ask, smiling because I already know the answer.

"Ramona," my aunt says, just like she always does. Again, she doesn't quite smile, but the gleam in her eyes lets me know that she knows I'm humoring her. "Her name was Ramona, and she was the daughter of a wise mystic, the most powerful man in the village, and she was very beautiful, but also kind. Are you with me, child?"

"I'm with you."

"Very good. Now, take care not to interrupt, as it's very important you catch every detail. Remember, Ramona was gathering smooth stones, to make into beads to give to the other young women of her village, at the banks of the river. Not this river, mind, but the River—Sea, the Amazon, which is where all great stories take place. As Ramona was walking along the river, she rounded a gentle bend, and she came upon a small clearing in the trees that she couldn't see before. And she was walking, but suddenly she stopped, and she covered her mouth with her

hand, to stop her gasp, for it would not do for the shaman's daughter to seem afraid. But Ramona was afraid, because standing in that clearing was something she had never seen before."

"What was it?" I ask immediately, entranced not by the story itself, which I've heard many times before, but but by my aunt's voice, far away and dreamy.

"It was a man," she says. "A man like Ramona had never seen before. He was pale, such that he seemed to glow, with yellow hair like the sun, and his eyes were greener than the river. He was so strange that Ramona almost recoiled, but then he smiled, and it was such a kind smile that he instantly became beautiful. He took two steps toward Ramona and fell on his knees before her, like her father the shaman did before *a lua*, Lady Moon. And the man spoke to her, in a language that was not like her own, but she was surprised to find that she understood."

Here, Daiane paused for a long moment, considering the lilies in her basket. I waited, trying to be patient, remembering she had told me not to interrupt. But I didn't last long; I never did, caught up in the magic of the story. I impatiently demanded, "What did he say?"

She glared at me, but I knew it had no real heat. This story and its teller were as familiar to me as the music that is the rushing river behind us, and she knew I'd interrupt, let the question burst out as I always did.

"He told her that he loved her, the way the trees love the sun and the tide loves the moon, and asked if she might think about loving him too. And he asked so nicely, this strange man, that she agreed to give it some thought. And they continued to meet, there by the river, and he saw how kind she was and how every living thing was beautiful to her, and he loved her more even when he thought that he couldn't. And Ramona saw how this man listened when she told him of her land, her people, and all the things she cherished, and saw how he came to cherish them too, and slowly Ramona grew to love him as well."

My aunt paused again. I have never been patient by nature, and sometimes I get frustrated with Daiane's habit of taking everything at such a leisurely pace. But as I wait for her to pick up the thread of the story once more, I have to acknowledge that there might be some virtue to doing things slowly, as the weight of all that she's said sinks into me, settling on my skin like dew on the grass.

"But it couldn't last, child, you must know that. Ramona tried her best to share her gifts with everyone she met, tried to make the world as beautiful for them as it was for her, but here was one beautiful thing she couldn't share, and so of course, they tried to take it from her. The warriors of her village attacked her love at midnight one night. By the time Ramona reached his side, he was fatally wounded, bleeding on the ground. She gathered him close to her as his last breaths left him, and she wept, there on the banks of the mighty river."

Daiane's gaze swept over to the river, over a cluster of floating lily pads with perfect white flowers. I have never seen the River—Sea, the Amazon, but I have heard stories about it that make our littler river seem like a brief and inconsequential trickle. I can see an echo of the magic that I know is there on our river—lilies, of course I can, but I can imagine the flowers that grow near the banks of the Amazon are choked with it, bursting with magic and myth.

"As you know, your ancestor Ramona was the daughter of the village shaman, and as such had heard the stories of *a lua*, the moon, though Ramona had never seen her in person. She wasn't sure why she did it, but in the depths of her grief, ramona bowed her head to the soft dirt of the riverbank and called out for *a lua* to save the man she loved, and to Ramona's shock and awe, the moon goddess appeared.

"'Don't cry,' she said to Ramona. 'Your love has saved him.' With that, the moon goddess laid her hands on the broken body of Ramona's love, lifted him as though he weighed

no more than a child, then walked into the river, deeper than anyone had ever gone before.

Ramona fell asleep there on the bank, and when she woke, the Great River was awash with beautiful white flowers."

"The first river—lilies," I said, interrupting again, but Daiane wasn't angry.

"Just so," she said. "And Ramona spent her days much as she always had, on the banks of that river, and knew her love was never far from her."

I sigh contentedly, like I always do when I hear this story. It's a beautiful story and resonates with me today more than usual. *Her love was never far from her*. It's a nice thought, that something could be gone and not. I send a silent prayer, or maybe just a wish, to *a lua* or whoever to keep my family close to me and vice versa when I have to go to America, to Texas.

Something about the story bothers me in a way it hasn't before.

"What about a lua?" I ask my aunt. "What happened to her?"

Daiane frowns at me. "What do you mean, what happened to her? What a stupid thing to ask, child. She continued. She continues still, just as the moon rises at night and sleeps during the day. She walks the forest paths, and she watches over her children."

"Her children?"

"Yes, stupid Ramona. We are all her children, but you and your mother, and all her kin especially. Even I have seen her, down by this river at night."

Now it's my turn to frown. My aunt Daiane is a free spirit, certainly, and I learned at a young age to take everything she says with a grain of salt. But the way she spoke, it didn't sound like her usual mumbo—jumbo, and she certainly isn't one to bring up my mother lightly. *I* have never seen *a lua* by the river, but then I don't spend as much time here as my aunt, and I of all

people should know better than to take someone's lack of seeing something as sufficient proof that it doesn't exist.

Daiane is staring at the opposite bank with a dreamy look in her eyes, as though *a lua* is there even now. I look, but can barely see past the glare of the late afternoon sun on the water. Perhaps.

"Aunt Daiane, I came to say goodbye. I'm leaving for the states tomorrow, to find a cure for the cattle."

She looks up at this. "Your papa's cattle? They're sick?" she asks, proving definitively just how much of what goes on flies right past her, though she picks up on gossip and other secrets with no problem.

"Yes, Aunt Daiane. But I'm going to help them."

She looks at me for a long moment. "Bless you, child," she says finally. "Goodbye."

And with that, she turns back toward the river, and I turn back to the house, where my brother is waiting with our father's old pickup to drive me to the airport.

Our father's pickup truck is the setting for some of the most memorable moments of my formative years. It is where I first sat in the front seat with my father, helping him patrol the land for lame cattle, hog wallows, and coyote tracks. It's the first vehicle I drove, making runs to the store in Ivinhema for bandages, candy, or cachaça, if we had run out. It's also the first vehicle I crashed, as Alex loves to remind me.

"Hey, 'Mona, remember when you took that turn too sharp and rolled this thing into the middle of the horse pasture?" My brother smiles at me from the driver's seat, and it's warm, because Alex knows no other way, but strained. We are both of us trying to put a brave face on.

We ought to be better at it than we are, with all these months of practice we've had since our father died.

"Really, maninho, again? Is there nothing more interesting for us to talk about?"

"Mona, you know nothing interesting happens to me, hanging out with livestock all day.

If it's up to anyone to carry the conversation, it's you! Tell me about Sao Paulo, your classes,
your eight boyfriends..."

I roll my eyes and whack him on the shoulder.

"Hey, hey! I'm driving, here."

"You should've thought about that before you opened your big mouth, *bobo*. You know I have to maintain a relationship with *at least* twelve suitors at any given time."

"Ay, don't let Victor from across the river hear you talking like that! I *know* he still has his heart set on being Mr. Ramona Riojas," Alex says, nudging me with his elbow. I have to duck away from him, embarrassed, which is stupid because it's been years and might as well have been lifetimes since I kissed our neighbor Victor in the horse barn when I was 15. I don't think I would even recognize that girl, today.

"Victor will survive," I say breezily. "But what about you, little brother? Have you been driving dates around in this dirty old pickup? No wonder they won't stick around!"

Alex laughs brightly. "What dates? Victor's only sister is twenty—eight and married, and you won't see me driving to Ivinhema just to talk to a girl. Plus, most of the girls I know are getting ready to move away for university, anyway."

Alex doesn't seem sad or resentful when he says this, and I realize I'm a horrible sister because I was looking for those things, hoping for them.

"And you?" I say carefully. "What are your plans, y'know, when it comes to university?"

"Oh, no, 'Mona, that's you, not me. Could you see me in Sao Paulo? I'd be hopeless. I'd wear the wrong shoes and they'd tell me I talk funny..." He smiles and waits for me to join in, but I can't see any humor in it. My brother is brilliant, kind, funny—he's never met a stranger. It seems a waste for him to be stuck here, especially with Papa gone. It's just Alex and a few ranch hands now, some of them close to his age and with whom he's friendly enough, but too rough and crude for my sweet brother to really connect with. There's also Aunt Daiane, of course, but she was always closer to me then Alex, and she never could be counted on to stick around for extended periods of time, and lately she's been more distant than ever.

No, it's wrong for Alex to be stuck on the ranch all alone, in our big stone house with no one around. He's finished with his fundamentals, and made decent grades. If he just got out, just made it to uni, he'd find himself really enjoying it.

"It wouldn't have to be Sao Paulo," I say. "There are excellent schools in Campo Grande, and it's only a couple hours from here. You could check in on things whenever you wanted."

Assuming there's still a ranch left to check on, I think, and I'm sure Alex does too, but we don't say it. He's frowning now, and this isn't what I wanted.

"I can't just up and leave," he says. *Like you did*, I hear. "Not with the cattle sick, not with the ranch in the state it's in. Papa wouldn't stand for it. I have a responsibility here, and he'd want me to honor it."

I take a deep breath. "I know, Alex, but don't you think you have a responsibility to yourself, to get an education, meet new people... get out of this place? I just think you could do so much more..."

I know it's a mistake as soon as it comes out. Alex won't see it that way. Papa and Alex were so much alike. It hit them both hard when I left, all those years ago, but it was harder to see

with Alex, because he doesn't get mad and scream and yell like Papa did. He has so much of Papa, but not that anger. So when I left, he felt all of the betrayal, but couldn't scream it out at me, like our father did. He just hurt.

"You made your choice, Ramona," Alex says, not looking at me. "And I had to deal with it, I understand that. But you don't get to make mine."

We ride in silence, till Alex drops me off at the one-terminal airport in Ivinhema. He helps me with my bags, mumbles, "Good luck," and drives away, in a cloud of dust. I'm beginning to get used to these kinds of goodbyes.

The flight from Ivinhema to Campo Grande is short and bumpy, but otherwise uneventful. The flight from Campo Grande to the international airport in Sao Paulo is less short, marginally less bumpy, and no more eventful. The huge airport is bustling, people speaking all different languages running to and from their gates. They have the AC blasting, even though it's March.

I have some time before I have to board the plane which will carry me from Sao Paulo to Dallas, Texas, and I should spend it working on revisions to my thesis, but I find I am unable to focus on formatting. I find myself instead pulling a crisp, white business card out of my purse, a card that looks like it was printed just this morning, though I know it's several years old. It reads:

Matthew P. Ripoli

Associate Professor of Animal Science and Nutrition

Tarleton State University, Stephenville, TX

(254) 867—5309

For years, this card rested untouched in a filing cabinet in my father's closet at home.

Untouched because Papa cared very little for the man whose name was inscribed on the card, but

saved because Papa wasn't the type to just throw away information of any sort, and I suppose it was lucky he didn't— or potentially lucky, it remained to be seen.

I was only sixteen when the stranger came to my father's farm. The visitor was

American, and told us he was a professor. My father offered up his own bedroom for the stranger
to sleep in, and he slept in Alex's while Alex bunked in the stable on a horse blanket. He was
only eight or so then, and slept in the stable many nights anyway.

For two weeks, the stranger examined our crops and pulled bits of hair from the livestock's coats. *Samples*, he called them, *for research*. I was in fundamentals then, and Alex in primary and so I had to commandeer the pickup most days to drive us to Ivinhema for class, necessitating that the stranger use a horse to get around for all his snooping. Somehow, he had never ridden horseback before, yet he claimed the horse that I considered mine, a beautiful dark roan mare, who I swear must've been of Arabian stock. I called her Cachaça.

That first morning after he arrived, my father was already out feeding on his own horse, and I was attempting to herd Alex away from petting the stabled horses and into the pickup, also stabled.

"Ah, you must be here to saddle my horse," the stranger—Ripoli—said indulgently, as though he was talking to an infant.

"Desculpas, senhor... We have no... saddles here, only a bridle," I tried to explain, gesturing to the hook where it hung. My father had taken the other. I had never even seen a saddle, except in American westerns. Ripoli looked at the bridle, at Cachaça in her stall, then at me.

"Right," he said uncertainly. "Well, *senorita*, your father promised me he would be willing to accommodate. Is there a neighbor who could loan me one, perhaps—— *por favor*?"

I shook my head. "No one uses them here, *senhor*. The shop in Ivinhema has them—"
"Perfect!" said Ripoli. "And that's where you're going, isn't it? Here."

He thrust several bills into my hand— American money, something else I'd never seen, and I doubted the store in Ivinhema had either.

"I don't need anything fancy, whatever they've got. In the meantime, I can take samples on the horses, and whatever's close to the house."

And with that, he turned away. I stared a moment, then grabbed Alex by the arm and tugged him into the pickup. We were already late.

I did end up buying a saddle with the American money. The teenage clerk at the store in Ivinhema didn't even seem to notice the difference, shoving the bills in the cash drawer and turning her attention back to her phone. The next morning, my father got up even earlier than usual, finished his rounds of feeding, and had Cachaça saddled before Ripoli had even trudged out to the barn.

The next two weeks proceeded in the same fashion. Anything Ripoli wants, my father fetches. He changes the pasture rotation, confusing all the hands and overgrazing the pastures, just so Ripoli has better access to the weaned calves, the heifers, the older cows. When we aren't at school, he has Alex and I bring Ripoli food and water and even trail behind him to carry his books. Alex and I were never told what the stranger was there for, so I wasn't sure if my father was just practicing hospitality, or if he believed that fervently in whatever the stranger's mission was.

After fourteen full days of keeping my father from his usual duties and annoying my brother and I, the stranger approached us in the kitchen as we were clearing up after dinner. He stood there, holding his books and his notes and his briefcase that I knew contained his research

samples. He looked at us, hummed and tutted and chewed the end of pencil, leaving a dangling strand of saliva as he pulled the mangled wood and bits of eraser from his lips. He asks my father if he has noticed any sign of sickness in the herd. If my father was anywhere near as surprised by the question as I was, he showed no sign of it, simply shaking his head, demeanor serious as always. The stranger hummed and hawed some more, packed up his bits of hair (and blood and dung) and left. I could smell the lingering hints of his aftershave and the insect repellant he copiously applied for days after, and if the way the cattle snort and flick their ears is any indication, so could they.

This is the man I am traveling to America to meet. When he came to visit us, all the cattle in his university's research herd were dying, as were the cattle in ranches across Texas, across the Southern United States, and down into Mexico. Even some cattle in Brazil were afflicted, though it was only a few isolated cases. But not ours; ours were perfectly healthy, and they remained that way for eight years. Then, a few months after my father died, we noticed cows starting to sicken, and soon we were finding their bones, sun—bleached and carrion picked, as we made our patrols across the land. At first it was only the very old or very young, deaths that we could have explained away, but as the months progressed, our best market calves and strongest heifers began to wither away, weaken, and die. The ranch was all we had left of our father, and our only real source of income, besides. But a ranch without livestock is nothing, an empty shell that cannot be sustained. If this Ripoli was able to find a cure in the long years since I last saw him, then I will travel to Stephenville, Texas and learn it.

I slept most of the way to Texas, and was only jarred awake by the plane landing.

Disabling my phone's airplane mode, I notice I have several texts from Alex. They are pictures he's taken of a pen of steers that we were preparing to load up for an auction in Ivinhema. When

I left, they were perfect specimens, healthy and well muscled and active. Alex has sent me several pictures and one video. I watch the video first. In it, a hand warily approaches a steer in the corner of the pen. These are range animals, and although we have had them penned for a night or two, their whole lives have been mostly devoid of human contact. This steer's natural instinct would be to escape the hand's approach to the best of his ability, yet he stands listlessly, eyes dull, breathing labored. He is twitching and shivering, though the sun is shining in the video and the hand is sweating in his short—sleeved shirt.

The photos are all similar; each member of that same group either standing and listing to the side, or laying in the sawdust, which the animal's instincts would compel it never to do in such close quarters, when the danger of being trampled was so clearly present. The final picture is of a steer who is obviously dead, his tongue lolling out and eyes unfocused.

The only written message my brother sends are the words, "Please hurry."

Somehow, I find my way to baggage claim, using the tiny Spanish print under the English words on the signs to navigate. My Spanish is far from excellent, but evidently it's enough to distinguish "Baggage claim" from "Ladies' room". As I wait in line at baggage claim, a small dark shape in the corner of my vision catches my eye, causes me to turn my head. It is Saci.

I have to look twice, to make sure it's really him, though I know what I saw. Sure enough, he is hopping around on his one leg, red cap firmly in place on his head. He ducks between the legs of a woman trying to herd four little girls and twice as many bags through customs, obviously in a hurry. As I watch, she runs off, carrying one child, holding on to two by the wrists, and with the last toddling along behind them, and somehow the suitcases go with them. Yet, I look back to baggage claim, and notice she's left her purse behind.

I could chase after her with it, but ultimately it would do no good. Saci is mischief and chaos. When small things go wrong it is his work, and even if you manage to avoid him, he'll catch up to you in the end. The woman will reclaim her purse eventually, and to try and foil Saci here would be to invite some other misfortune, likely more serious.

No, I'm less concerned with the woman's misfortune and more shaken by the fact that he's here at all, in this airport in Dallas, Texas, so far from home. I haven't seen him in years, not since the first time the professor visited us, in fact. I never saw him in Sao Paulo, or at the ranch during the few, brief visits home I made in the years before my father died. I don't know what it means, seeing him here.

When I first began to see them, Saci and the others, I didn't realize it was anything out of the ordinary, let alone impossible. I was very young, Alex an infant, and my mother was gone. My father, his grief still fresh, tried to hide his pain from his impressionable daughter by throwing himself into his work with more fervor than ever before. My only real companion was Aunt Daiane and her stories, as enchanting then as ever. When she tells a story, she breathes life into the characters, taking myths making them as real as the nose on your face. So, when we strolled by the river and she told me of the iemanja, a beautiful fish—woman who makes her home in rivers and the ocean, ("But of course, her favorite home is the River—Sea, which is where most magical things spend their time.") and I saw a pair of luminous brown eyes and glistening dark hair peeking at me from behind a log floating along the opposite bank, it only seemed natural.

"Aunt Daiane, look, she's there!" I shouted, forgetting in my childish exuberance how my aunt dislikes being interrupted.

Daiane looked in the direction I was pointing and frowned. I knew she couldn't see her, yet as I watched, the iemanja smiled slyly and waved, before sinking beneath the surface of the river.

My hand fell to my side, and I hung my head. I worshipped my aunt, and I knew Daiane would think I was just being silly, like all the times I thought I saw monsters in my closet at bedtime, that turned out to be only sweaters.

"I promise I saw her, Aunt Daiane," I said quietly.

Daiane looks at me for a long time.

"I believe you, *Leãozinha*," she said after awhile. "But you should know that other people, your father— they might not. I have told you, you are very special, yes?"

"Yes, Aunt Daiane," I said brightly, earlier distress forgotten in light of my aunt's affection.

"And I was right, of course I was. I want you to remember that, whatever people may tell you. You are so special, Ramona, and I believe you."

And that was pretty much that. For awhile, I would tell her every single time I saw them. I drop what I was doing and run to her, babbling excitedly about curupira, who I had seen at the edge of the brush when I was supposed to be collecting eggs and who had gently steered a few lost hens back toward the chicken yard, or teiniaguá, whose cave of treasures I had stumbled upon while wandering the rocky hills on the edge of our land, treasures I had been delighted to examine but would never think of taking, even if their watchful guardian had not been right there.

Each time, Daiane would say "How wonderful, my girl," or "Amazing, 'Monazinha," and always, always, "I believe you." And for a while, this was enough for me. For years, it was

enough. But, like most babies do, my little brother eventually grew old enough to toddle around, old enough to become at least a semi—interesting playmate, and I wanted to include him in some of the magic that I saw every time I wandered the property.

"Look, amiguinho, it is curupira, see! He says hello." I pointed in the relevant direction and waved. Sure enough, curupira stood at the edge of the brush, bouncing on the balls of his backwards feet, smiling indulgently and waving at me. I might've run to him, said a breathless hello and followed him into the brush that for me, all of ten years old, might as well have been one of the great jungles, the Mata Atlantica or even the mighty Amazon rainforest. Many times I had run to play with curupira and and spent whole afternoons wandering that brushy patch, being shown all types of wildflowers, fungus, and even quails' nests and fieldmouse dens that I would otherwise never have noticed. Of all my friends, curupira was one of my favorites. But I knew I had to be cautious of Alex's baby legs; he would not be able to move nearly as fast as me and I could just see him tripping on a protruding branch, tumbling down and maybe even scratching himself on some brush. I wanted to prevent this both because Alex was far less tolerable as a playmate when he was screaming and crying, but also because I was learning more and more every day that Alex was more than that, more than just a more interactive doll to play with: he was my responsibility, one which I took extremely seriously. He was my baby brother, and he trusted me endlessly. It was important that I be worthy of that trust, even if doing so meant sometimes saying no to my other favorite playmate.

All this to say, I knew that I had to be content with just a smile and a wave to curupira, but it was okay because I could point him out to Alex. We were isolated as children, me especially since Alex had always had me, but I had to go several years without another child

around for company. Introducing Alex and my friend, the mythical guardian of the forest, was like introducing my two best friends to each other.

I was still pointing at curupira, encouraging, waiting for my baby brother to follow along. Even at ten, I understood that it sometimes took him a little while to catch on to things. He looked first at my finger, then followed the line of where I was pointing, till he was facing right where curupira was standing. He squinted, as if trying to make out something that wasn't there. As if he could sense my growing disappointment, he waved enthusiastically and smiled brightly— in entirely the wrong direction. He always aimed to please, my sweet brother. I forced a smile at him to let him know I wasn't upset, but it was a weak attempt.

I understood that not everyone could see my friends; Aunt Daiane couldn't, though I know she wished otherwise, and father certainly couldn't. I had never gotten around to asking any of the ranch hands, but I was reasonably sure that if they shared my special vision, we would've heard about it by now. I understood all this, and wasn't terribly upset by it. They were all *grown—ups*, even Aunt Daiane with her magical stories and penchant for playing dress—up. They were still adults, supervisors rather than comrades. We were practically different species in every other respect, so it made sense that I was different from them in this way, too. But Alex——Alex was *mine*, he was the blood of my blood, my closest ally and my best companion. We shared everything else, spent all our time together. To be so distinctly set apart from him, to have him unable to share in this part of my life that was so dear to me... it stung. When I eventually moved out, sent myself to University of Sao Paulo against the wishes of my father and brother, I regretted it all the more because I knew how much it would have hurt Alex, my willing separation from him when for the entirety of his life, we had been partners in crime, constant

companions. Although I know it wasn't Alex's fault, I felt a little bit of that betrayal that day by the brush, when I tried to show him magic and he couldn't see.

But that, of course, was years ago and has nothing to do with Saci, here in this airport. For a moment, I worry that I'm hallucinating, which is foolish, because if I am, I've been hallucinating my entire life. It's not that I'm so certain this isn't the case, it's just that, if it is, it would be foolish of me to start worrying about it now. So, hallucination theory tabled for later, I watch as Saci hops about, milling amongst the airport patrons, causing little episodes of mischief like shoelaces coming untied or hot coffee being sipped too quickly. Eventually, I lose track of him. I wonder why he never approaches me. When I really consider it, it does seem noteworthy: out of all the magical beings and creatures of myth I've met throughout the years, Saci is far from rarest, yet we've never spoken. And now, he's followed me to America, when before today the only place I'd ever seen any of them was at home on my father's ranch. Never in Sao Paulo, nor even in the tiny school Alex and I attended in Ivinhema, only a few dozen kilometers from home. Out of all of them, it seems particularly unlucky that it's Saci who followed me here. I don't know that any of them could help me with the task I have come here to accomplish, but I worry that Saci will actually be a hindrance. My work is cut out for me as it is, and I don't need an endless series of paper cuts, traffic jams, and the rest of Saci's repertoire in addition to the obstacles I'm already up against.

From Fort Worth, I am forced to rent a car and drive to Stephenville. When I was planning this trip back home, I had desperately hoped the two cities would be connected by train or bus route or some form of public transit, because the furthest I've ever driven a vehicle before was from the ranch to school in Ivinhema, and that was a route that consisted mostly of country roads where we seldom saw another vehicle. But as I'd struggled through travel websites and

both the Fort Worth and Stephenville city council pages, all of which were written in English with a few Spanish translations available if I was lucky, but nothing in Portuguese, it had become apparent that *nothing* was connected to Stephenville, by bus route or otherwise. It was an island of a city in an ocean of dusty prairie land, miles of lonely highway stretching past the horizon before they met civilization. A rental car would be my only option. Perfect.

Fortunately, the car rental service is attached to the airport. Unfortunately, the line to speak with an attendant stretches interminably, with each waiting customer looking more harried than the last. It would appear that this is the place a precisely—timed schedule goes to die. I assume a position at the end of the line, and pull out my phone. Before leaving home, I downloaded an app with games that are supposed to help me learn English. I've only opened it once before today, but I'm beginning to regret not taking the time to practice. I've just realized that I don't know the phrase "I'd like to rent a car" in Spanish, much less in English, and I calculate the odds of there being a translator who speaks Portuguese as slim to none.

It's nearly an hour before I'm able to get to the front of the line, and a glance out the window tells me that the sun is low in the sky, which is not ideal. My phone tells me it'll take an hour and a half to get to Stephenville, and that's assuming I don't stop and there's no traffic. Not that I imagine there will be much traffic, it doesn't seem like Stephenville is the kind of place that hordes of people will be trying to get to, but still. An hour and a half is the best case scenario, and I'm not eager for my first time driving in over a year to be on an unfamiliar highway, in an unfamiliar car, at speeds much higher than I've ever driven before, *and* in the dark. I'm already nervous before I even get to the car rental desk, where a painfully thin woman with graying blonde hair that has been pulled back harshly into a tight bun is sitting, looking somehow bored and impatient at the same time.

"Hello," she says, but doesn't smile. There are several more syllables that come after "hello", grating over hard consonants with little to no inflection, and they run together before I can make sense of them.

"Hello," I answer. I know that one. I try for a polite smile. *I am going to Stephenville, Texas. I would like to rent a car.* But I stood there, smile faltering, and couldn't remember the words.

"Você fala português?" I said instead, which I knew was foolish. The woman's eyes narrowed.

"Ma'am," She said, slowly and *much* more loudly than before, which was annoying. I wasn't deaf, I just didn't understand. She said some more stuff, still far too loud, words I didn't know. I caught the word "American", repeated several times, and I got the gist of what she was trying to say. She looked me over deliberately, eyes traveling slowly up and then down my body, taking in my sneakers, jeans, white t-shirt and cardigan. Did I look like an illegal alien? I didn't know there was a "look", and if there is, I don't think this woman would be able to distinguish it from any of the other tired, ragged travelers.

"Sou uma cidadão do Brazil," I say, a little pointedly. The woman stares blankly, and that feels good for a moment, the shoe on the other foot, but I know it ultimately won't help me if we can't somehow communicate.

"Sou brasileira," I say emphatically. Still nothing. With a sigh, I rummage into my purse, before pulling out my Brazilian driver's license and my international driving permit, with text in both English and Portuguese. She looks at it suspiciously, like she just knows it's fake despite the fact that she obviously can't actually tell the difference. She then sighs, sounding extremely put upon. She glances very deliberately at the line behind me, which is still miles long, and

gestures to her coworker, a red-headed man who is currently talking animatedly to another customer. He holds up one hand, speaking in a universal language: *Wait a minute*.

The woman holds up the same hand to me, and, rather than address the next person in line as we wait, she simply glares at me stonily, and I have to restrain myself from glaring back. It's not the way I was raised. Finally, the redhead makes his way over to where we're standing.

"Adonde vayas?" he asks, pronunciation terrible but not unkind. It's close enough though, that I can make it out, plus it's a question I've been waiting, trying to answer this whole time.

"Stephenville, muchas gracias," I say on a sigh of relief.

"Bien," he says, and then seems unsure of how to go on. "Por favor, su ... su I.D., please."

I hand over the requested documents. We stumble through a few more questions, I write a check for the security deposit on the car, and finally, finally, I am handed the keys to something the man calls an SUV, and I am out the door, on my way, that much closer to saving my ranch and my family.

It's been years since I've driven a car at all, and even longer since I've driven by myself, without Alex there, chattering away on the way to school, or my father's cool, clinical observations as we survey the ranch, the livestock, or even Victor from the next ranch over, back before I left, holding my hand. I turn on the radio, now, in my rented SUV, but there's still too much room to think.

I have been fortunate, I know this. The government has taken care of most of my university education, and the extra, the doctorate I'm pursuing in animal nutrition— the ranch paid for that. Studying at USP was everything I'd ever wanted. It was a new, big, exciting city,

new friends, always learning new things. I was grateful for and more than fond of my home, the people and the scenery that raised me. But the entire time I'd been at the ranch, I'd been Ramona, the little girl who was always underfoot. Ramona, the owner's daughter. Ramona, who kissed the neighbor boy, Victor. But at USP, I could be Ramona, whose research was going to make life better for farmers and ranchers, who would alleviate hunger in the country I love, who would help make sure livestock were treated and raised as humanely as possible. I was working so hard, because I believed my work would make a difference. I had always appreciated the irony that my father had been so incensed by my decision to leave, because he saw it as abandoning my duty, when it reality, it was simply an extension of my duty, the way I defined the word, the way he'd explained it to me. My father worked every single day of his life, giving everything he had, first to make his family's life better, and then the lives of every person he possibly could. By going to university, the research I was doing... I only ever wanted to do the same thing. If only he would've understood that, we could've parted on better terms.

Although, that wasn't quite true. When I left, I was eighteen and hot-headed and so angry, all the time. Even arguments that started off minor dissolved into screaming and crying, on my end, and silent, maddening calm on my father's. He had asked me why, why I felt that I needed to go.

"I want to make a difference," I'd said, through tears and snot and anger and shame. He looked at me for awhile, long and considering.

"You will," he said calmly. "I am sure, in whatever you choose to do, you will do extraordinarily well; you are my daughter. But as to making a difference... you should know, Ramona, your leaving will make an extraordinary difference, to the ranch, the animals, to your brother, your aunt, and to me."

He had a way of saying things like that, thing that would've been sentimental if they didn't make me feel lower than the dust on his boots. I had wanted to retort, wanted to say *I* know, or really? Because it seems like you'd both be better off with me gone, or it will make a difference to me, too, and I don't know how I'll cope. But I'm choking on bitter tears, and I say nothing, and I leave.

We don't have a similar discussion again, not once in the handful of times I come home over the next six years, not the one time my father comes to Sao Paolo, to see my graduation. And then he was gone, and I never got a chance to explain, to say that I was pursuing my path because it was what he'd inspired me to do. To say I planned to come back to the ranch someday. To say I'm not sure I ever left.

It probably wouldn't have mattered, even if I had gotten the chance to explain. My father and I were cursed, I believe, never to see eye-to-eye. We were alike in all our negative qualities, and so we tended to but heads rather than work things out peaceably. I felt closer to him, ironically enough, when I was at school. For all that it wasn't his world, I think I felt my father's presence the most when I was in the lab. The first lab I took as an undergraduate was for a basic biology course, focusing on mammalian nutrition. I fell in love with the work at first sight. I stayed after class every day asking questions, and was always the first hand in the air when our professor asked for a volunteer to feed the bison that we used for research. Feeding the animals was work I knew, but taking samples of their stomach acid, measuring the growth rates of calves, and calculating the macronutrients of different types of feed were all new to em, yet they built on the experience that I had spent my entire life earning. It was like the sum of everything I had learned from my father; I had the opportunity to care for the specific animals we used for our lab,

but the research we were doing would help farmers and ranchers care for their herds, and by extension, their families, all over the world. That was Emilio Riojas, to a T.

It was a foregone conclusion that I would continue conducting research in animal nutrition as a graduate student, and I was in the middle of teaching a lab of first year students when I got the call that my father was dead. Alex couldn't bring himself to speak, he was already trying so hard not to cry. I stood in the hallway outside the lab and listened to his labored breaths, as he tried and failed to get himself under control, to be brave for me. I suppose I could have said something, interrupted, saved him from his suffering—I knew what must have happened moments after I picked up the phone. I knew Papa had cancer; it was fairly new but he hadn't seemed worried, the one time we'd spoken about it on the phone, a few months prior. I was planning to go home to visit soon, just hadn't gotten around to it. I don't know why I didn't say anything to Alex, that day on the phone.

Eventually, Aunt Daiane must've taken the phone from my brother, because I heard her voice, solemn and soft.

"Ramona," she said, "I think it's time you came home."

That was a little less than a year ago, now. What was supposed to be a week or two of grieving with the family I had left became an application for indefinite leave from the university. If the ranch was to stay afloat in my father's absence, it needed someone who wasn't constantly disappearing to who-knows-where, and someone who was familiar with not just the day-to-day chores that kept the ranch running but with the business side of things as well, so that ruled out Daiane and Alex. Plus, I was still holding onto hope that Alex would decide to go to school, which I knew he absolutely would not do with the ranch in jeopardy. I knew that it couldn't be them, but I also hadn't intended for it to be me, not for the long term.

I had just finished getting my father's affairs settled, and was in the process of finding a new ranch manager when the first cows began to sicken. It was horrible to watch, and I was just as chilled by the pictures Alex sent me at the airport, of maybe the two-hundredth animal to succumb, as I was when I witnessed the very first deaths on the ranch. While my memories of this Professor Ripoli might be less than pleasant, if he had anything close to a solution to my problem, then it was more than worth the trip out here.

I pull the car into a Motel 6 parking lot. Even in the middle of the night, the heat is dry and stifling, seeming much more oppressive than I ever remember it being at home. But that's not why I'm sweating as I approach the bored-looking clerk at the front desk.

"Hello," I say. I've got that one down.

Luckily the clerk saves me from having to come up with anything more complex. "Room for one?" she asks, without looking up from her computer screen. I nod although she doesn't see it, but that's alright because she's already handing me a key. I pay quickly, and head to a room down the hall that's seen many a resident since it was last refurbished, but is at least clean.

Tomorrow I face Ripoli, a meeting which could potentially determine my future, my brother and aunt's, and the future of the ranch that has been in our family for generations. It's a long time before I can sleep.

Morning dawns hazy, not really cloudy or overcast but it's as though I'm looking through a dirty lens. It's a new and unpleasant experience. The motel is about fifteen minutes away from the heart of Tarleton State University's campus, which means it's back to the SUV for me.

Google tells me that Professor Ripoli's office is located on the third floor of the Joe W. Autry Agriculture Building. I somehow manage to maneuver the SUV so it's parked against the street.

My feet feel like lead as I get out, cross the street, enter the building and climb the stairs. People pass me on the way, and I try not to look suspicious. I pause outside Ripoli's door.

It isn't as though this is the first time I've considered all the ways in which my plan is potentially flawed. I've been scouring journals of agriculture online, looking for mentions of the disease, but there haven't been many. All the information I've found that seems to fit the disease afflicting the ranch are footnotes in larger articles. I've managed to learn that while there have been scattered cases on larger cattle operations across Brazil and a few more in Colombia and Venezuela, but it hasn't caused enough of a problem to warrant much research into a cure. The articles all indicate that the ranchers whose cattle were afflicted simply culled the diseased individuals, and moved on. That had been my strategy at first, but the disease moved too fast for it to be a feasible solution. Within weeks, the afflicted or those who had been in close proximity to the afflicted accounted for nearly 50 percent of our herd. Perhaps, if I had been more observant in the days following my father's funeral, I would have noticed something off, would have been able to pinpoint the one individual who brought the sickness to the rest of the herd. We still tried to slow the spread of the disease, tried to quarantine the sick animals, but the symptoms tended not to reveal themselves until it was too late.

As far as American research, I had searched those articles too, but there were so many more of them, infinitely many. And while my English was enough that I could muddle through basic writing, the technical language used in the scientific articles gives me migraines. I did a few searches using Ripoli's name as a search term, and came up with a multitude of articles the man had written. From what I could tell, none of them concerned mysterious cattle disease, but it was very possible that he had done research on the subject that was yet to be published. What was less likely was that somewhere in that unpublished research was a cure, and even more

unlikely that such a cure would be financially viable to me, as draining as the last few months had been on the ranch. Hell, he might not be willing to share the cure at all. And all these were only a few of the glaring flaws in my plan; there was also the possibility and maybe even probability that I wouldn't be able to effectively communicate what I needed to say in English, and it was surely too much to hope that Ripoli's Spanish or Portuguese had improved since I last saw him, and I didn't even know if he was actually in the office at all. I had a plane ticket back at the end of the week, and I wouldn't be able to stay much longer than that anyway without some sort of income; I couldn't draw much more from the ranch or I wouldn't be able to pay the remaining hands. I had called the university before I left Brazil, paying an exorbitant amount for the international call.

"Hello, thank you for calling Tarleton University's Department of Agricultural and Consumer Sciences. If you know your party's extension, please dial it now. If you are calling to inquire about the opening for animal science research field assistant, please email Ms. Henrietta Kennedy or Dr. Matthew Ripoli directly with your question. All other queries, please remain on the line."

I had waited for several minutes, listening to scratchy, in-and-out hold music. I glanced anxiously at my watch, mentally calculating the price of each of these extra minutes. After an eternity, a pleasant female voice came over the line, making me jump after becoming used to the monotonous hold music.

"Department of Agricultural and Consumer Sciences, this is Sharon. How may I help you?"

It had taken me a while to respond, to first determine what exactly I was being asked and then come up with the words and hopefully the correct tenses and pronunciations to answer.

"Hello," I said carefully. Again, I was good at that one. "Please, I could talk with Dr. Ripoli?" A little shakier, but surely she could piece it together.

"I'm sorry, but Dr. Ripoli is on annual leave for the rest of this month. If you're calling about the research assistant job, I can get you in touch with Carol, the supervisor for the Ag labs-

"Oh! No, I-"

"It's really no trouble, sweetheart. Transferring you now."

Abruptly there was a click, and then more of the hold music from before. I felt a migraine coming on. I wasn't really sure what I had gotten into and I was less sure how I would get out of it. What had she said? Something about a job, I'm pretty sure; if that's the case, then talking to carol is most likely not at all relevant to my mission.

"Name, please." It was brisk but I was too busy feeling relieved at the simplicity of the sentence and the ease with which I grasped Carol's meaning to be offended.

"Ramona Santos Riojas." Easy.

"Perfect, and your email address?"

"Riojas.ramona@usp.br." That, too, had been easy. I was getting good at this English business.

"Excellent. You can expect to receive an email from me before the week is up, with the information you'll need to complete your application for the position."

Wait a second.

"Oh, no, *senhora*—"

"If there aren't any questions—"

"Please... Dr. Ripoli?"

"Dr. Ripoli is out of the office currently, but if selected for the research position you will report to him as your immediate supervisor." *Click*.

I sat dumbly for a minute or two. I still wasn't sure exactly what had happened. I thought about calling again, but a piece of information I definitely had absorbed from the whole exchange was that Dr. Ripoli was definitely not there, and I couldn't imagine a second phone conversation going any better than the first. I knew they had taken my email address, and so I figured that I could count on receiving further communication that way.

The email, when it came, contained instructions for submitting my resume, a short personal statement, and my transcript for relevant coursework. When I replied asking when Dr. Ripoli would be in and if I might be able to make an appointment to speak with him, I received an email saying I had been accepted for the research assistant position and asking what date I would like to start. Since it had become apparent that phone calls and email wouldn't be sufficient to reach Ripoli, I decided to take the opportunity to speak with him in person.

Which led me here, standing outside a shiny wooden door emblazoned with "Matthew Ripoli, Ph.D", one shaking hand raised to eye level, with the moment between not knocking and knocking stretching into infinity. After having come so far, and with so much still at stake, it was suddenly impossible for me to act.

I was spared from having to by the door swinging open, revealing Dr. Matthew Ripoli. He looks almost exactly the same as he had sitting in my father's pickup all those years ago, except his hair, which had been thinning then, is now completely gone. The whites of his eyes are yellowish and dingy, and his shirt and tie are rumpled. He seems just a bit out of breath, which is also in keeping with what I remember from his stay on the ranch years ago.

He blinks owlishly at me a few times, opens his mouth, closes it. He narrows his eyes, as if trying to work out where I fit, trying to reconcile what he's seeing with what he expected. Finally, his face lights up with recognition.

"Rebecca!" He exclaims brightly. "I'd been wondering when you'd arrive. It is Rebecca, isn't it?"

Am I supposed to be Rebecca? Is he greeting me as his new lab assistant, as the daughter of the rancher he once imposed upon in the name of research, or as someone else entirely? Is that how you pronounce my name in English? (no, stupid.)

"Erm... Ramona?"

"Ramona! Of course, that's what I meant. My new lab tech! Are you excited to get started?"

I nod. "Dr Ripoli..."

"Please, call me Matt! If you'll come with me, right this way, I'll show you to the lab and you can get started!"

And with that, he's off, down the hall. I remain where I am, in front of his office door, my hand still raised.

He's still talking, only turning back when he's about halfway down the hall on the way to the stairwell, evidently realizing that there's no one listening to his overly-chipper monologue.

"Roberta? This way please. Unless... Could I perhaps get you something? Ice water?

Coffee? Soda? Ice tea? Hot tea? I maybe have some orange juice on the shelf, it's not cold but I could get some ice..."

"Dr. Ripoli," I interrupt. He was like this before, too. Extremely solicitous, but a terrible listener. So nice, it makes you uneasy. "Dr. Ripoli, I come from a ranch in Campo Grande,

Brazil. We raise sheep and goats, and grow corn and sugarcane. But most of all, our business is cattle."

"- Oh, how fascinating! What a coincidence, I spent some time in Brazil, myself-"

"Most of all, our business is cattle," I interrupt, and Aunt Daiane would just die. But I have rehearsed this speech, and I cannot afford to be distracted. I will not be turned aside again, not when I am so close to reaching my goal. "Our herd has been ill, they are dying. It is a disease, I do not know, a ... virus or ... a expressão? A germ of some sort, but they eat and do not grow, they waste away and they die. I know that you have been to Brazil, you have studied our herd, and I must know, can you cure them? My father gave you hospitality years ago, he trusted you, and if you still have some respect for his memory, please. You will tell me."

I didn't plan to beg, but I'm not surprised it came to that. It suddenly seems ridiculous, me being in America at all. The odds of this man providing the solution that will save the animals, my brother, our father's legacy, and myself all at once are laughably poor, but it is still, has always been, my only option.

I stand there, looking at Ripoli, and it feels like I'm looking down from a dizzying height, poised to fall, and Ripoli is all I have to clutch at to keep my balance, and as his silence stretches longer, my hold becomes shakier. Suddenly, he laughs.

"Ramona Santos, of course! Emilio! Of course I remember, of course. A lovely operation your father has up there. How is he, by the way? Good, good. I *am* sorry to hear about the disease, Emilio was worried this would happen. No matter, I'm sure we can get it all worked out! Just follow me to the lab, and you'll see for yourself."

And he's off again, and I am once again confused, but more than that, I'm hopeful. He talks a lot, and not slowly, but from what I could follow, Ripoli seemed not only to know what I

was talking about, but to believe a solution is within reach! As I feel the tension coiled deep inside me release just a bit, I realize that this is better news than I had even dared to hope for. I turn to follow, enthusiastic, when a blur of motion in the corner of my eye stops me dead in my tracks.

I turn and look, though I already know what I'll see. Saci winks at me cheekily, and hops away on his one leg.

Well, that can't be good, but there's nothing I can do about it now. I follow Ripoli, jogging to catch up.

He talks, and talks all the way to the lab, and I tune most of it out when I realize it has no immediate bearing on the ranch or the cattle sickness. He swipes his identification card through a complicated-looking lock on a set of double doors and pushes them both open with a flourish.

"And here is where the magic happens, my dear," he says, and winks at me. I give a half smile in response, unsure of what the correct response is in this situation.

The lab is impressive, miles of gleaming steel, bright white counters, glass beakers, Petri dishes, microscopes and centrifuge machines.

"This is the primary location for our nutrition research, as well as some of our genetics.

As the grad tech, your job is mainly to oversee the undergrad labs and help with the senior capstone projects, but since you seem so interested in our research into the cattle disease, you can head up our team working on that as well!"

He grins at me, obviously expecting me to be pleased. I'm not sure how to respond, as usual, so I fall back on politeness.

"Thank you," I say with a small smile.

"Of course!" Ripoli booms. "You'll meet the rest of the team tomorrow. For now, my secretary, Carol, will help you find your dorm."

"... My what?" I say, frowning.

"What? Oh, I'm sorry, your DORM. Dorm? You know dorm. Like a house, but smaller, and with roommates, although I think you're by yourself, with it being summer and all. Not a ton of students around... but don't worry! You'll still have a great time. Living on campus was the best part of college for me, the stuff we would get up to... You know, kids being kids." He smiles conspiratorially.

I must still look confused, because he goes on.

"Your... casa? I'm not sure of the word, but Carol will show you. Here she is now."

I'm whisked away by an older blonde woman wearing a bright pink power suit.

"See you tomorrow, Regina!" Ripoli calls cheerfully after me.

At the front desk, Carol equips me with a key and a map.

"So, you'll be in Centennial Hall, congratulations, that's one of our newer ones. Room 1432. If you have any questions, just consult the map. Hope you have a great evening!" And with that, Carol's exiting through a door that reads "Staff Only". I look at the map, trying to find something that looks like "Centennial Hall". None of the words on the little folded paper she gave me seem to match. I resolve to just head back to the motel for tonight, and try again to find it tomorrow. I didn't bring luggage or anything with me anyway, and still have the room for another night. I retrace my steps and head out the front door, intending to get back into my rented car and drive back to the motel.

I pull out my keys, point them in the direction of the parked car, click unlock, and... nothing happens. Nothing happens because the car is simply not there.

"Perdão!" I call out to a police officer across the street. "I mean, um, help, please?"

To my surprise, he answers "Si, senorita, que es la problema?" in perfect, if accented, Spanish. I could collapse from relief. Spanish is a breeze compared to the struggle I've become used to.

"Mi coche," I reply. "It... was here?"

"Ah, *lo siento*," he says, with a sympathetic grimace. He gestures to a "No Parking" sign, partially obscured behind a bush. "You'll be able to pick it up in the morning."

"Gracias," I say miserably, and trudge off, hopefully in the direction of "Centennial Hall".

The dorm, which I eventually stumble upon by sheer luck, looks impressive from the outside, or maybe formidable is a better word. It looks more like a museum or a bank than a place where people live, a huge square structure made of tan bricks. My room is the size of my closet back in my father's house, and the bed is a bare foam mattress on a metal frame. The bathroom is down the hall.

I am lacking sheets or any sort of blanket, as well as a change of clothes, but there's nothing I can do about that until morning, when I go get my car. Using my purse as a pillow, I sleep, and dream of cattle falling down, wasting away to bones and then getting back up again, of Saci dancing amongst the gleaming counters in Ripoli's nutrition lab, and of Alex's disappointed face when he dropped me at the airport.

The next morning, after running into and securing a ride from the same nice policeman from before, I'm able to reclaim my SUV free of charge (evidently there's normally a charge to reclaim your own property) because the chief is convinced that I can't read English and therefore didn't realize that I was parked illegally. It's more than a little insulting and not the truth, and I

try to persuade him otherwise but am unable to communicate effectively enough to do so, which sort of makes his point. Besides, I can tell that he believes he's being kind, and it is true that I didn't know I couldn't park there, so a let it slide. Next on the agenda is to report back to the animal nutrition lab, and, as my employer said earlier, "meet the team".

After a shower and a change of clothes, I'm once again knocking on the office door of Matthew Ripoli, Ph.D. He helps me get a picture taken down in the basement office of the Department of Agricultural and Consumer Sciences, which will go into my identification badge and will permit to open all sorts of doors, most importantly the ones to the lab. I barely recognize the girl in the photo, when I see it. It's maybe the first picture of myself I've seen that was taken after my father died, and I might as well be a completely different person than the one pictured in every photo before.

The team, I find out when I return to the shiny lab, consists of three other people, all of them men. Two are Ph.D. students, like I am, or was before I left school, and one is an undergrad. When I ask them what they've managed to accomplish so far in terms of research, he's the only one who speaks up.

"We believe the disease is genetic, caused by the activation of a certain gene that in turn causes an overproduction of lectin, which, as I'm sure you know, is the hormone that signals to the brain that the body is full." I nod. My English may not be great, but I recognize the word "lectin" and it acts as a familiar landmark that helps me navigate the rest of his words. Besides, science is and has always been a language I know well.

"So basically, the animals are starving themselves, but feel like they're full. We also think activating the gene leads to a decrease in the efficiency of the rumination process, so roughage like grass or hay takes longer to digest, *and* they aren't getting the nutrients out of it that they normally would, so that of course only makes things worse."

I nod again, thoughtful. I had assumed all along that the cause was viral or bacterial, so learning that it was genetic was a little discouraging, since it wasn't going to be something that could be fixed with an injection or a feed supplement. But still, it was something to build off of.

"Are we able to isolate the gene?"

"That's what we're working on," a grumble, this time from one of the Ph.D. students. He gestures to a tray of maybe 50 petri dishes sitting in a fridge. "We're observing the lectin production of these tissue samples after interacting with 53 different sections of genetic material."

"Do you know what causes it to activate?" Why hasn't this been a problem until now? And it isn't breed specific, isn't isolated to a particular sire or lineage. It has to be a part of the genetic code that's been around long enough to be almost universally present, but that has for some reason remained inert in previous generations. "It must be something environmental."

"We can't know, not until we've isolated the gene," this from the same grad student, and he's sneering now. "We can't just toss different environmental factors at the whole section of code, it would cause all kinds of unrelated effects."

"But you wouldn't have to, you could just observe in live animals! Find out what feeds, plants, insects, *whatever* the infected herds might've been exposed to, and then test it in a controlled environment. We would be able to feed the sick animal intravenously, or through a cannula, so it would be alright in the end."

This is met with blank stares. I know I have an accent, but did they really not understand?

Did I mix something up? I didn't think about that little speech, didn't plan it out carefully like I

usually do when speaking in English. I just got caught up in the heat of the moment, and it came out.

"We don't have access to live animals," the brave undergrad says.

I am agog. "The university doesn't have a herd for research?"

The undergrad laughs. "Of course they *have* one, Dr. Ripoli works with them all the time. But *we* don't have access to them, this is a student led research team."

For a moment, I'm not sure I've understood. At USP, where the Agricultural Science department is maybe half the size as here, judging by the state of this lab and the whole building, any graduate student is free to conduct research on the university's animals, provided they fill out the requisite paperwork and comply with standards for ethical treatment, and even undergrads can if they are supervised by faculty. I pursued this field of study because I believed it was in keeping with the values in still in me by my father; the importance of knowing the land and respecting the animals we use for food, of gaining practical knowledge and using that knowledge to help others. Here in this sterile lab, hearing theories that have never been applied to actual animals, I have never felt farther from him.

They show me the work they've done so far, attempts to isolate the gene responsible for the disease. The students themselves seem a little apathetic but their work is solid, meticulous and uses up-to-date techniques. It's good research, and if it weren't for the personal stake that I have in these findings, I would be honored to have been chosen to lead such a team. Given my situation, however, I'm impatient. The research is slow, we're maybe years away from implementing a cure, and my animals and my father's legacy are dying as we huddle over petri dishes and painstakingly examine individual sections of the genetic code. When we finally head home, my neck hurts and I feel the beginnings of a migraine. I don't remember the last time I

spent an entire day indoors. Certainly not at the ranch, and even when I was studying in Sao Paulo I would get to go to the research barns, to visit with the animals and do chores. It grounded me. As I trudge back in the direction of my dorm, I feel adrift, which might have something to do with me ending up hopelessly lost.

I end up in front of what looks like an enormous garage made of steel and poured concrete. I wouldn't have recognized it for what it was had it not been for the familiar sounds and smells coming from inside. I opened the door to reveal a huge, state of the art livestock barn, populated by goats, sheep, hogs, and at least 30 Charolais heifers. I walk up to one with a beautiful, creamy brown coat.

She is young, I can tell by her bright eyes and her teeth; she only has two permanent incisors. I decide to call her Lua, after the moon in my favorite story. She looks at me and slowly blinks, and her liquid brown gaze is steady, calming. I stroke her neck and her skin is like velvet, and it reminds me of home, though our hardy, rangy herd has never produced such a pretty animal, at least not in my memory. I feel more grounded than I have all day.

I visit Lua almost every time I get a break in the following week, which is often, as the stage of research that we're in involves a lot of setting up the experiments, then waiting hours just to make a tiny adjustment, and then waiting hours again. I'm there on several occasions at feeding time, and I happen to notice that while the cattle do get a nicely varied diet of roughage, like hay or alfalfa, processed feed products, and oats, they never eat corn. It's an odd choice from a management choice; corn is inexpensive, provides fat and sugars that it's hard to get just from feed, and animals almost universally enjoy it. It's a puzzle, and I find myself going back to it during the endless hours babysitting petri dishes in Ripoli's lab. I broach the subject hesitantly

with the rest of the team, but they're skittish at any mention of going out to the livestock barn, even as careful as I am.

"I was in the barn, with the animals," I say, and Chad, the undergrad, drops the pipette he's holding into the solution he's trying to titrate. Cursing, he fishes it out again. Roger, one of the Ph.D. candidates, gapes at me.

"How did you get Ripoli to give you permission to go in there?" he asks, breathless with jealousy.

"What was it like?" this from Paul, the other grad student. I shrug.

"Lots of cows, smells like hay," I reply. This is longest conversation we've had that's not about work. At least, not directly. Turning to Roger I say, "I didn't."

He looks blank. "Didn't what?" he says.

"I didn't... ask him." For permission, right? Permissão? It's a cognate.

"You... didn't?" Am I the one who doesn't speak English? Because it's beginning to feel differently.

"Certo," I say, and nod so he gets it.

"But you have to ask him! If he knew that a student was in there, unsupervised..."

It's all I can do not to roll my eyes. He makes it sound like we're children, or like Ripoli is some kind of dictator. The whole thing is ridiculous, but maybe Roger is exaggerating. His personality does tend to gravitate toward the hysterical.

"The door was not locked," I point out. Roger blusters. "Anyway, I was wondering... why do they not feed corn? I do not understand."

"And you expect us to know?" Roger retorts. He's worked up, despite my intentions to the contrary. See? Hysterical. "We couldn't even tell you what animals are in there, never mind what they eat, or why."

"Ask Ripoli," Chad pipes up, then chuckles. "I'm sure he'd be happy to enlighten you."

I frown. I can tell when I'm being made fun of, even if I don't quite grasp the intricacies of how. I put my head down, lean over my work. They all quiet down, but I'm thinking maybe Chad might be onto something.

I haven't been to Ripoli's office since I first arrived, and I'm not really looking forward to visiting now. But I can't help but feel that there must be some connection between the cattle's diet here at Tarleton and the disease back home, though I'm not sure where the feeling comes from. The door is shut as I approach the office at the end of the hall, but as I approach it slowly, ominously swings open, as if blown by a draft, though the air in Stephenville in the summertime is as still as death. As I draw closer, I see Saci standing just inside, and I have to force myself not to jump, as Ripoli is at the desk, marking up papers. Saci sketches a sarcastic bow, raising an arm to invite me into the room.

"Rachel!" says Ripoli jovially. "What can I help you with, my dear?"
"I_"

"How are you finding the research team? I know it's kind of a boys' club, but I figured you'd be a good influence on them." At this he winks, awkwardly, using an entire half of his face.

"Well, I-"

"And I've heard your making excellent progress! Roger tells me you've managed to analyze 38% of the genome in question, excellent work! Do you find the lab to your liking? I can always have Carol—"

"Dr. Ripoli!" I say firmly. "The lab is good, only missing one thing: why do we not work with any animals? We are researching for animal sciences department, are we not? The work would go much quicker if we could see the genes interact with the environment in a realistic way."

Ripoli is frowning, but for possibly the first time in his life and certainly the first in our acquaintance, he says nothing, so I press on. "I went to your barn, and it is good, but I see no experimenters, no students. Why have animals if you do not use them? And why," I'm on a roll now, "why do you not feed corn? We fed corn always at home, it is more economical, at least until the animals got sick..."

Even as I'm speaking, my mind is racing. It almost seems like too much of a coincidence. Ripoli, meanwhile, has allowed his expression to shift gradually from his usual slightly condescending smile to something darker and angrier. He is visibly fuming by the time I let me words trail off.

Ripoli chuckles darkly. "Yes, that would make sense, Emilio always was all about getting bang for his buck. Some of us are concerned with more than just saving a dime. And as for letting you work with the animals, I would sooner surrender them to a pack of wolves than to the daughter of Emilio Riojas. I learned my lesson with your father, thank you very much. Now if you'll excuse me, I have a class to teach." He storms out, seeming not to care that he's left his office door wide open, with me still inside.

For a moment I'm so angry that I'm shaking, and I'm not even entirely sure why. I don't understand what Ripoli implied about my father, and not just because of the language barrier. He learned his lesson with my father? It was my understanding that their acquaintance with each other began and ended with that trip Ripoli made to Campo Grande when I was young. He won't let me near the animals because of something my father did then? The way he treated our animals? It doesn't seem likely; while I may not be the most impartial judge, everything I know about caring for livestock I learned from my father, and according to my peers and professors at USP, I am capable, if not more than. And besides, Ripoli implied that his issues with my father had to do with research, and while Emilio was many things, he wasn't a researcher.

At least, not as far as I know.

I'm startled out of my thoughts by a loud *thump*, and this time I do jump, practically out of my skin. A huge binder is splayed open on the floor. On the dark wood cabinet above it is Saci, perched on the shelf. I open my mouth, perhaps to ask him a question, but before I can he's turned around and disappeared, ostensibly right into the wall.

I crouch next to the binder, flipping back to the front cover. It's covered in a stubborn layer of dust that even the fall from the shelf was unable to dislodge. The cover reads: "Implementation of *Milho Lua* Feed Corn in Campo Grande, Brazil", then a subheading, telling me the contents were written in 1989, by Matthew Ripoli and Emilio Santos Riojas. For a second it doesn't sink in, and when it does, my whole body goes cold. My father and Ripoli knew each other for years before I was even born.

I flip through the binder. It's mostly pictures; Ripoli wearing a white coat and goggles in the same lab that I've spent most of my last weekend, though obviously without the modern updates it has now. Pictures of barren fields in what is apparently Campo Grande, judging by the caption, though I've never seen it look so desolate. Some kind of crop disease, perhaps a fungus? Whatever it is, it must have been eradicated soon after, as I've never seen anything resembling this wasteland in any of the cornfields in Campo Grande. Pictures of cattle auctions, with anemic crowds and animals for sale that are little more than skin and bones. Pictures of research plots, and growth charts that must be for their strain of corn, their *milho lua*.

My father and Dr. Ripoli, with their arms around each other's shoulders.

I continue flipping through the binder, till I come to a list of scientific names, genus and species pairs, each followed by number, and then a percentage. I know immediately what I'm looking at, having seen countless similar lists in my work at USP: it's a list of the different plants and animals that they borrowed DNA from, complete with the chromosome number that they used, and then the percentage of the end product that is made of that substance. The first entry in the list is *Victoria amazonica*, the Amazon River Lily.

I continue flipping through, looking at their data. The purpose of the new strain was to be disease resistant, and evidently it worked; while the rest of Campo Grande suffered, my father was able to plant *Milho Lua* in our modest cornfields, and allowing him to continue to feed the cattle during a time when our neighbors' herds were decimated. They predicted that it would be resistant to more than the Campo Grande plague; Ripoli and my father believed they had stumbled upon a super crop, one of the first. Ripoli evidently was very enthusiastic, and replaced all the corn grown in Tarleton's research plots with *Milho Lua*, without the approval of his supervisors. The binder also included pieces of correspondence between the two inventors, written in a mix of English and Portuguese. My father urged Ripoli to be more cautious, but Ripoli wanted to sell, wanted the fame that would come with being the inventor of the hardiest

feed grain in the world. But Emilio cautioned him to wait, saying they couldn't be sure that the genetically engineered corn wouldn't have unintended effects.

Ripoli threatened to take the corn to market without my father's consent, and my father blocked him, saying that he had to do more tests, and that if Ripoli sold, Emilio would reveal to his thesis advisors that he had commandeered the university's fields without their permission.

"About that time, Emilio happened upon the correct combination of antifungals that would solve the Campo Grande corn crisis, meaning selling our strain would no longer mean the same payout that it would've," Ripoli is standing above me. He must've been reading over my shoulder, but I never even heard him come in, I was so engrossed in what I was reading. He's now looking straight ahead, at something only he can see. "He never had any intention of selling that, he was in such a rush to hand it out to the other ranchers in the area. I was able to pass it off to my thesis advisors as my own finding, which pretty much ensured not only that I received my doctorate, but also that I was looked on pretty favorably by the administration. When I expressed an interest in working here, they were falling over themselves to give me the job. The prestige was enough to get me pretty much unchecked control of the research barn, in particular the cattle's feeding regimen."

"And they never eat corn..." I whisper, beginning to understand. "Because you would be expected to feed the corn grown here, and you replaced all the seed stock."

"With *Milho Lua*, yes," he says, and his face twists into a sneer when he pronounces the Portuguese name. "I fed it to them at first, of course; I was still so sure that it was the future. But after several years, the first animals started to sicken, and die. That was when I visited your father, for the first time since I stole his discovery. You were a child."

I nod. I remember.

"I knew it had to be the grain, it couldn't be a germ or virus. Even the animals we keep in a sterile environment were getting sick. And it was only Tarleton's cattle, only mine. The only difference between what we feed and what the rest of the country feeds is a certain strain of corn, a strain that only grows here. Well, here and one other place."

"Our ranch," I say, although it's pointless, I'm only stating the obvious. Ripoli nods.

"I wrote to Emilio, telling him the problem. He insisted it couldn't be true, he'd been feeding the stuff to his own animals for as long as I had, and none of them were sick. He told me I was welcome to come and see for myself, probably thinking I'd never do it. He looked like he' seen a ghost when I showed up on your doorstep. But he let me run my tests, true to his word. He was a man of conviction, your dad."

I nod tightly. I had thought that I was past being hurt by these casual mentions of him. Stupid.

"I took all kinds of DNA samples, as well as environmentals. I'm sure you remember. I ran tests, but found no evidence of disease. I had to go home empty handed. I was able to convince my superiors that it was a strain of bovine flu that caused us to lose so many animals that year, rather than a genetic mutation causing an overproduction of leptin. I rebuilt the herd and changed the feeding regimen. I just cut out corn entirely, rather than having to explain to my superiors why I was buying it, when for all they knew we had a perfectly good supply growing right here. I had been trying to breed a different strain of corn into ours, with no real luck, when I got a letter out of nowhere from your father, about a year ago. His cattle had started to sicken and there was nothing he could do. He was under an enormous strain, that much was evident from his letter. That was when I started the research team. I owed him that much. But the work was slow going, as you know, and before I had anything helpful to show him, a mutual friend informed me

that Emilio was dead. And then you showed up. I'm sorry, Ramona, really. I can't help you, not like I know you'd hoped. I know what's causing the disease, but I don't have a cure. The only thing I could suggest would be for you to cull the herd, start over, but I'm sure you've already thought about it."

I nod again. "We can't afford it," I say numbly, feeling despair wash over me, heavy and cold. "Not after the funeral expenses, and my tuition bills. The cattle are our main source of income, and we've lost so much already."

Ripoli nods miserably. I don't like the man, and it's obvious that he and my father had a complicated relationship, but this is the most genuine emotion I've ever seen from him, and I feel myself thawing toward him, just a little. "Emilio didn't have any savings? He was a frugal man, at least when I knew him."

"He was," I agree. "He only ever took one big risk, while I was at USP. We had grown our herd naturally up until that point, only buying new animals when it was absolutely necessary. We had a purebred herd, all descended from the same couple ancestors. But he bought big that year, 300 head and they were crossbred, from America, from Texas actually. It was the year my aunt Daiane moved in with us, and I guess he was anticipating the expenses she would bring, wanted to supplement his income. That pretty much wiped out his savings. He would've earned it all back, of course, but that was right before the cattle started getting sick."

We're both silent for a moment, both looking down. When it hits us, our heads both snap up at precisely the same moment, just like in the movies.

"The samples you took, when you came to visit-"

"I still have the data," Ripoli says excitedly. "The crosses, they interbred with the main herd?"

I nod again. Pedigree doesn't mean as much on Brazilian markets as it does in America, our purebreds were more an inside joke than anything. My father wouldn't have gone to the effort and expense to keep the new animals separate from the old.

Hybrid cattle are valued for being examples of the best qualities of each of their two parent breeds, without the downsides, and this is generally the truth. But as with any hybrid, there is also a greater chance of mutation, and sometimes these mutations have unintended consequences.

For example, hybrid cattle can develop a genetic mutation that, when exposed to specific environmental factors such as genetically engineered corn, could lead to an inability to regulate leptin production.

"If we could compare the samples I took form your ranch, from the cows that didn't get sick, to the samples I have from my own herd that did get sick, we can spot the difference in the genetic code," Ripoli is saying excitedly.

"And we could find out what allowed the healthy cows to block the effects of the corn," I finish. I can't quite believe that it's that simple, and it isn't really. Spotting the difference should be easy, now that we know what to look for, but there's no guarantee that we'll be able to artificially recreate whatever it was that was keeping the healthy cows healthy. Still, it's closer to a solution than I've felt in a long time, possibly ever.

I wait anxiously while Ripoli pfinds the data from both sets of DNA samples. For all his faults, a lack of organization is not one. It takes him less than ten minutes to find the correct papers in his office, though they're years old. He lays them out on the desk, and we both huddle over them, comparing data entries line by line.

It's me who finds it, almost by accident.

"The sick cows had an incomplete copy of the fifth chromosome," I say breathlessly. "So they would've had a hard time building certain proteins, possibly including ones that signal to stop leptin production."

"We just have to find what protein it is, and we can administer an artificial copy," Ripoli says. "It's only a temporary solution, but it could be enough to save the herd you have left. You could stop feeding *Milho Lua*, burn the fields, replant. You'd be able to recover."

It could be. I can hardly bring myself to believe it, but it could be enough. "Do you have blood samples? We need to compare the protein content, to make sure we're replacing the right one."

Ripoli flips through the pages with manic intent.

"Here's the protein counts for the sick cows," he says, setting aside a sheet of paper. He moves on to shuffle through the second stack, reaches the bottom, frowns, and flips through again. He looks at me, face contrite.

"I'm sorry," he says. "I could've sworn I ran protein analysis on the animals at your ranch when I was there, but I can't seem to find it." He shakes his head. "I'm sorry, truly... I don't know what else we can do."

I can't speak. I look down at my hands and I'm distantly aware they're trembling, but it doesn't feel real, nothing does. I'm not angry, nor particularly sad. I feel nothing, which is odd considering all my hopes, recently so high, have been dashed to nothing. Without a word to Ripoli, I turn and leave.

It's dark as I exit the building. I guess I was in Ripoli's office for a long time, though it all seemed to happen so fast. I look down at my feet as I walk, but I'm not really seeing them.

I'm too lost in my thoughts to pay any attention to my surroundings. I'm planning to pack up

when I get back to the dorm, make arrangements to return to Brazil. We'll have to sell the ranch, there's no way we can continue to run it without the income from the cattle. I can't imagine facing Alex and Aunt Daiane, can't imagine what I'll say.

I look up at the sound of a loud *bang*. Somehow, my feet have carried me back to the barn, and the metal door is swinging on its hinges, the bang the result of it swinging into the wall. I rush to close the door; it's breezy tonight, and I would hate for the animals to catch cold. Out of the corner of my eye, I catch a glimpse of Saci, which answers the question of how the door came to be left open.

Since I'm already here, I may as well visit Lua. Looking into her sweet eyes never fails to soothe me. Neither does stroking her soft coat, the perfect example of rich, Charolais brown...

Purebred Charolais. I turn and sprint back to Ripoli's office.

He's sitting at his desk, head in his hands when I arrive. There's a glass of something suspiciously like bourbon at his elbow. He is the picture of regret, and again, I feel myself disliking him a little less.

"The animals in the barn," I pant, holding onto the door frame on legs wobbly from my mad dash. "They're pure Charolais, yes?"

He looks at me like I'm crazy for a moment, then nods slowly. "Yes, why...?" he begins to ask, then stops himself in the middle of the question and leaps up. "I have their protein counts on file."

Again he sets the two sets of data side by side on the desk, again we lean over them together, playing a desperate game of "Spot the Difference". He sees it first.

"There," he points, and I see it too. The Charolais cows have a significantly higher count of a certain protein that I immediately recognize as one that can be synthesized in a lab. That had to be it.

I look at Ripoli, elated, when suddenly my phone rings. It's Alex. I frown. It's the middle of the night at home, he should definitely be asleep by now.

"What's wrong?" I ask, in Portuguese, without even saying hello.

"Ramona," says Alex, and I've never heard him so distraught. "I'm sorry, I'm so sorry, this never would've happened if you were here... I should've done better. I'm so sorry."

"Whoa, slow down. What happened?"

"The hands were having a party, a bonfire. But they didn't put it out all the way... I'm sorry, I should've known better, I should've checked."

"Alex," I say urgently. "Tell me what happened."

"The fire spread all through the fields, into the pasture... Ramona, the cattle are scattered, I don't know where. They're all weak to begin with... and the corn fields are gone, completely.

Ramona... I don't think we'll be able to recover."

I don't say anything, I can't. But I can hear Alex on the other end, his breathing so harsh it sounds like sobs, and I can't let that go on.

"Alex, it's alright. It isn't your fault, maninho. The fire's out now?"

"Yes," he answers miserably. "The hands and I were able to put it out. No one was hurt, but Ramona-"

"Hush. You're alright, Daiane and the hands are alright. That's all I need to know. It's alright, Alex. Go back to bed, if you can. I'll call you in the morning, and I'll be home soon."

"Goodnight," Alex says, and he still sounds crushed, but at least not like he's on the brink of tears.

I tell him goodnight, then hang up and turn back to Ripoli. While I know he didn't understand what was being said, it can't have been difficult to tell something was wrong just from watching my face.

"What is it? What did he say?"

"It's too late," I reply, grim. "The ranch is lost. A fire."

"You could rebuild..." he starts, but I'm already shaking my head. I'm not sure if I want to cry, or scream, or just go to bed. Mostly I just want to go home, and see my brother.

Ripoli looks at me, and nods. He turns back to the desk, and gathers up the data that we used, along with the binder of his and my father's work.

"I'm sorry about your ranch. I know how much it meant to Emilio and I can tell how much it meant to you, since you were willing to come all the way here to try and save it. I couldn't help your father— not only was I unable to help him, but I destroyed our friendship, and he did nothing to deserve that. I should've done this a long time ago, but I can at least do it now."

He hands me the binder. I look at it, then look at him, not really sure what he wants me to do with it.

He sighs, impatient. "Build on our work. If you fortify the corn with the building blocks for the deficient protein, it should be safe for consumption in the future. Or, you could expand the research on the hybrid cattle for commercial uses; maybe if you can engineer the genome to be complete, hybrids will be able to use nutrients even more efficiently than they do now. You've done a lot of the work anyway; if you can get it in shape to be published, you could

finish your degree. Probably would even get enough in award money to help get your brother through school. It could help you start your new life. Emilio would like that."

I'm not sure that he would, but I don't say so. It's generous of Dr. Ripoli, and I can see how hard it is for him to give up on the the work he's clung to for so long, since 1989. And there *are* practical applications, and they should be shared with the world, but Ripoli can't do it without revealing the mistakes he's made along the way. When I publish, *if* I publish, he'll only be a footnote, a researcher whose work I've built on, and it won't be enough to actually incriminate him. I smile, and shake his hand.

"Good luck, Ramona," he says. "Maybe, when you've finished your education, I'll see you back here, maybe as a professor. I think you'd be good."

Out of the corner of my eye, I notice Saci watching. He holds my gaze for a few seconds, then waves goodbye, and is gone. He doesn't turn and hop away, or even gradually fade. One moment, he is there, and the next he isn't, and somehow I know that I won't see him again. I turn to go, binder in hand, and despite everything that's happened, I find myself smiling. Perhaps Dr. Ripoli will see me again, but not in the Agricultural Sciences Department.

. . .

Clayton is late to his first class of the day, which is also his first class of freshman year, his first in what is looking to be a long, *long* career as a Tarleton State Texan, which is a dumbass name for a mascot if he's ever heard one. It's an English class, he thinks, or art, or social studies, or some other bullshit. His degree is in Ag Education; he wants to teach animal science and welding and maybe also coach football some back at his high school alma mater, just like his dad. Evidently the "education" part of Ag Education means that you have to take other subjects typically taught in schools, so that blows.

He slides into a seat just as the time on his phone switches from 7:59 to 8:00. There is a printed syllabus already waiting for him on his desk, and on every desk, which seems like a waste of paper to Clayton, but hey, he's not about to tell her how to do her job. Her being... he squints at the syllabus. Ah, so the class is "Folklore of Brazil" and the professor is—

"Hello, class, my name is Ramona Santos Riojas, but you may call me Dr. Riojas."

There's a weak chuckle at that, and the professor *beams*, as if her whole year has been made.

"Now, to start us off, I'm going to tell you a story from my home country."

Huh. Clayton hadn't thought she actually Brazilian, like *from Brazil*. She doesn't have an accent at all.

She hits a button on her computer, and a picture of a river dotted with white flowers comes up on the the whiteboard. The Amazon, Clayton guesses.

"This is the story of how the water lilies came to be."

END