

Paper Minds: Revisiting the Icon of the Robot in Science Fiction

By

Ryan Morrison

BA(ProfCreatComm) *UniSA*, MCreatArts *Flin*

Thesis

*Submitted to Flinders University
for the degree of*

Doctor of Philosophy

College of Humanities, Arts and Social Sciences

18th February 2022

Table of Contents

Thesis summary	iv
Declaration	vi
Acknowledgements	vii
<i>Paper Minds</i> (creative component)	1
Revisiting the Icon of the Robot in Science Fiction	
1. Introduction	264
1.1 Statement of intent	268
1.2 Key terms	271
1.3 Structure of this thesis	273
1.4 My research	279
2. The icon of the robot	281
2.1 Suvin's zero worlds	283
2.2 The mega-text	287
2.3 Wolfe's icons	288
2.4 Wolfe's icon of the robot	291
2.4.1 From machinic, to anthropomorphic, to deific	295
2.4.2 Organism versus mechanism	297
2.4.3 The mechanistic zero world of the icon of the robot	302
3. Close study of <i>Ancillary Justice</i>	308
3.1 Summary of <i>Ancillary Justice</i>	310
3.2 Systemic individuality in <i>Ancillary Justice</i>	316
3.2.1 Bodies as othered machines: Breq's embodiment	318

3.2.2 Machines as othered people: Breq's personhood	322
4. The golemic mega-text	328
4.1 Before Rosenberg: Golem personhood and embodiment	332
4.2 The task-based golem: Golem labour and logic	336
4.3 Rosenberg's Maharalian Golem.....	340
5. Close study of <i>Paper Minds</i>	349
5.1 Writing <i>Paper Minds</i>	350
5.2 Machinic: Golem labour and logic in <i>Paper Minds</i>	353
5.2.1 The likho.....	356
5.2.2 Nadler-carts	359
5.2.3 Clay fusiliers	362
5.3 Anthropomorphic: Golem people and bodies in <i>Paper Minds</i>	365
5.3.1 Bodies as disposable machines.....	367
5.3.2 Machines as othered people	370
6. Conclusion	376
Bibliography	383

Thesis summary

From golem folklore to modern robots, anthropoidal automata exist across centuries of intertextual history. In 1979, Gary K Wolfe's iconography of science fiction provided a definition for the science fiction (SF) incarnation of this figure, the 'icon of the robot', a compelling entity representing the barrier between a known figure and its unknown implications. Wolfe's icon of the robot draws its evocative power from both fact and fiction — enmeshed within the SF mega-text, each new robot echoes its predecessors, real or imagined, intertwining scientific fact with science-fictional possibility. The robot has many guises, from the machinic, to the anthropomorphic, to the godlike. This progression, considered inevitable in the Golden Age SF analysed by Wolfe, is echoed in contemporary visions of the Singularity, the predicted moment where artificial intelligence (AI) will accelerate in complexity beyond human capability and understanding.

But while the implications presented by the rise of the robot in 1979 are not the same as those in 2021, familiar tropes about the robot endure, along with the outdated values echoing in its past. Without due interrogation, the icon of the robot can reinforce the values of a mechanistic universe — a universe in which mechanism is superior to organism — inviting dehumanisation by relying upon exclusive definitions of humanity and devaluing the organic in favour of the machinic. Reflecting the liberal humanism of Golden Age SF, these values are easily visible in the known elements of the icon of the robot, as the icon draws power from its preceding works. But these values also shape the unknown futures that the text explores through the icon's presence, implicitly reinforcing liberal humanist values by considering logic superior to illogic, and by discarding the messy variability of flesh for the abstract perfection of information.

I argue that it is possible for SF that evokes the icon of the robot to critique the mechanistic universe that accompanies this icon. To demonstrate this, I conduct a close study of two works of SF — Ann Leckie's *Ancillary Justice* (2013), an award-winning space opera that explores the consequences of systemic individuality; and *Paper Minds*, my creative artefact for this thesis, which interrogates the political issues surrounding how we depict and implement intelligent technology through my allegorical reimagining of golems. Through the machinic and anthropomorphic aspects of the icon of the robot, these works

both evoke and subvert the icon of the robot, valuing organic difference and embodiment over machinic replication and prescriptive definitions of personhood.

This thesis begins with my manuscript, *Paper Minds*. A novel-length genre-bending adaptation of Yudel Rosenberg's seminal Jewish folkloric work *The Golem and the Wondrous Deeds of the Maharal of Prague* (1909), my novel recontextualises golem technology into familiar machinic and anthropomorphic forms. By evoking the icon of the robot within the rich history of golem depictions — the golemic mega-text — *Paper Minds* recontextualises our longstanding relationship between technology and discrimination, and draws attention to the conditional nature of personhood and the role of the body in the creation of mind.

Declaration

I certify that this thesis:

1. does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any university
2. and the research within will not be submitted for any other future degree or diploma without the permission of Flinders University; and
3. to the best of my knowledge and belief, does not contain any material previously published or written by another person except where due reference is made in the text.

A handwritten signature in black ink, appearing to be 'Ryan Morrison', written over a horizontal line.

Ryan Morrison

10th December, 2021

Acknowledgements

This research project was undertaken on the lands of the Kurna people. Always was, always will be. I would like to pay my respect to Traditional Custodians of country throughout Australia, and to elders past, present, and emerging.

This research was made possible through the support of an Australian Government Research Training Program Scholarship, as well as the Sir Charles Bright Scholarship.

These years have been some of the most tumultuous years of my life. I doubt this is an uncommon sentiment right now, and I'm very aware that I live in better circumstances than most. But since beginning this thesis in 2016, I have grown, been brought low, and ultimately been transformed. I'm not who I was when I began; nor should I be.

I would never have reached the end of this PhD without the support I've received from the following people.

On campus, my most heartfelt thanks go out to my incredible supervisors, Dr Lisa Bennett and Dr Tully Barnett. They've always had my back, and I can't thank them enough for guiding me to new schools of thought, for teaching me to hone my work, and for making me a better thinker and a better writer. Thank you both, so much, for everything.

I'd also like to thank those in the GT writing group over the years, as well as my fellow WHIP 2017 committee members. Special thanks of course go out to Dr Grace Chipperfield, Dr Carolina Castro Huercano, Dr Ellen Whitton, and Cole Larsen, may he rest in peace. I've always felt awkward at Flinders, and spending time with each of you has helped balm that. I have cherished your most excellent company.

Off campus, I'd like to thank my friends and my family. I'm very fortunate to have too large a support network to name here in full, but bless you all for being there for me, and for giving me space when I needed it.

That being said, special thanks must of course be extended to my dearest friend Shannon Ryan, and to my intellectual sparring partner Justin McArthur. My love goes out to my siblings Adrian, Jess, Jarrod, and Cassy, as well as my mother Karen. I'd also like to thank those of you who gave me feedback on my ideas over the course of this project.

Most of all, I couldn't have done any of this without my wife Gemma. Your understanding, your support, and your encouragement has carried me through these years. Without your belief in me, and your reminders that I need to take care of myself, I never would have made it this far. Thank you. So much.

This thesis is dedicated to the memory of my Uncle David. I wouldn't be who I am if it weren't for him.

And no, for the last time, I'm not a robot.

Or a golem.

Paper Minds

(Creative component)



'Because their art and mastery is very different from other handicrafts ... it shall, from the date of this letter ... no longer be regarded or described as a craft by anybody, but rather shall be termed altogether the art of golemsmithing.'

Letter of Majesty issued by Rudolf II, Holy Roman Emperor, in 1595

Every kind of rumour brings force to bear on a sad disaster, and a spiteful story is stronger than the truth.

'Disaster is vulnerable to shame' by Elizabeth Jane Weston [II.45]

How the Maharal Created the Golem

This is not a story about golems.

Came they, to the banks of the river. The Vltava. The arterial blood of Prague.

Long beyond the fall of midnight. Came they, this holy man and two. Leading them, Rabbi Loew — known to many as the Maharal. Walking behind him, the Maharal's finest student, the young Rabbi Yaakov Sasson. A powerful alchemist in his own right. Creator of that which burns, bearing vials of that which etches as it warms. The power of fire. And behind Rabbi Yaakov Sasson, the Maharal's son-in-law, Rabbi Yitzchok Katz. A sofer, one who dotted ink to page like the hammer of rain. The power of water.

But it was Rabbi David Gans, the Tzemach David, who penned this tale. At least for human eyes. I am sure you have seen his words before, and certainly heard his telling of this story. Perhaps it would interest you to know that he was not there when it happened? That Gans only transcribed Rabbi Katz's account of what happened beside the Vltava that night, placing the story you know another step away from the truth?

No matter. Gans is dead, and thus beyond any enquiry. In any telling, there is one thing of which we can be certain — the presence of the Maharal.

Rabbi Loew, a speaker of ancient wisdom. Protector of the old ways, esteemed teacher to the new. It is he who believed that the teacher should shape the lesson to fit the student. The voice of all downtrodden Jews, his oratory kind yet commanding. The power of air. Chief Rabbi of Prague. And the sworn enemy of the hateful anti-Semite Thaddeus.

Came they to the Vltava. This holy man and two. And from the clay, the flesh of Bohemia, they built him. The reason for which this story is still told, to this day. Sung on every holy day by all the paper minds of Prague.

Scraping and digging from the riverbank, sculpting and moulding, the Maharal and Yaakov and Yitzchok fashioned the shape of a man.

As they worked, hair and teeth appeared. Can you imagine it? Yaakov and Yitzchok were taken aback, shocked. The Maharal had spoken to the clay, and thus it was so. Hair and teeth and fingernails. The clay itself brought them all forward at the Maharal's insistent request. Speaking the clay into life.

But what, I ask you, is life? Is it hair, teeth, and fingernails?

'From dust, we all once came. Now from dust and earth — in fire, water and air — we bring this creature forth.'

The clay before them began to glow, the liquid fire that had been placed within it spreading heat and light throughout. The three men walked seven circuits around this radiant shape, steam rising from it, the flesh of the earth fashioned familiar. A man, tall and broad. Their creation.

'We build you now, to guard the Jews of Prague. To protect them. From Thaddeus. From the blood libel. We bring you life to protect us all.'

And live it did. He did.

But what is life? Is it liquid fire? Is it heat and light?

The ritual complete, the man of clay was ordered to stand. The Maharal built a man, and so a man it was.

'You will live in my court, with me. With mortal men. We will conceal you in our number, and you will serve as a shamesh of the court. A warden.'

Shamesh. Servant.

The golem offered no objection, as not one of them — not one of this holy man and two — had fashioned him a tongue. But he knew language. Language was at the heart of his nature.

Perhaps you would like to know something interesting about language, hm? About nature?

No. No, I thought not.

'You will obey every one of my commands, no matter the cost. You will find nothing to fear in the brightest fire, the deepest water. The longest fall through air to earth. Nothing will halt you in the execution of your duty to me. To the Jews of Prague.'

And the Maharal was right. There was little to fear in such simple things. Skin that could not be burned. Lungs that knew no air, and thus could not be drowned in the denying of it. No essential flesh to pierce with knife or sword.

But what is fear? Does it come from fire, water, air?

The Maharal named his creation Yossele. The name of a deceased relative, perhaps? It is the way of Ashkenazic Jews. It was not known then, and even I do not know it now. It hardly matters — Yossele he was, because Yossele is what they called him.

Blank of face, with no known tongue. Listening often, but offering not. Nought but a raw lump. Nought but a golem.

Yossele. A legend now, across all Bohemia.

Yossele the first Golem of Prague.

But this is not a story about golems.

Chapter 1

Kozilek stared. He had been staring for some time.

He tapped the dusty floor with his black wooden cane. Shivered. Looked about. Definitely the first one here.

Nobody had taken the young boy down yet.

Strung up by his ankles, against the wall. Throat cut. Where blood hadn't dried on his face, bruising could be seen, rich purple. Blood matted the dark hair, clumping it.

Filthy feet, ragged trousers. No other clothes. Pauper? Maybe the son of a rural serf. One of a hundred faceless souls, flocking to Prague to escape indentured servitude on a burgher's farm.

Koz stared. Held his breath. Let it out.

He kneeled down. Lifted up one of the boy's cold hands. Turned it with his awkward, leather-gloved fingers. Porcelain skin caught the dim early morning light. No ingrained dirt. Too clean for the street.

Koz stepped back. Noted splatters of blood on the floor below the boy. Not much blood. Not enough.

A chair, beside the boy. Hidden by a sheet. Koz unveiled it with his cane.

Rows of flasks stood tidy on the chair. Regimented. A name painted on each. Hebrew. Koz recognised the names. Prominent Jews. Front and centre: Mordecai Maisel. Primas of the Jews of Prague.

Trembling, Koz uncorked the flasks. Blood. Blood in all of them, carefully collected. Neat. Wiped clean.

A blood libel. Now, in 1610.

It had been so long. Twenty-five years since the Maharal, armed with his golem Yossele, had defeated Thaddeus. Debunked his blood libel in '85. Since Thaddeus, there had only been one blood libel, four years later. The last blood libel of Prague.

Koz stepped back, olive skin flushing. Stumbling under the weight of memory.

53. 49.

That frail body. A ragged throat, ripped wide

Koz blinked it away. Cast his eye about the abandoned Maisel Synagogue. At the bimah, thick with dust. At where the Torah Ark used to sit. Maisel said that his velvet Torah mantle had been particularly fine, embroidered with river pearls, freshwater treasures from the Vltava itself. Gone now. Twelve columns, four ornate walls. All naked. Bare save the one upon which the boy had been hung. Motionless at the end of a rope. In the diffuse dawn glow from the front door, Kozilek's eyes chased shadows.

People didn't believe anymore that the Jews needed Christian blood to bake into their bread for Passover. To drink in their wine on holy days throughout the year. People didn't believe that Jews drained the blood from kidnapped children.

The dead boy stared, seeing nothing. Dried blood caked around dull jade eyes. What he believed, nobody could say.

Holding his cane in his gloved hand, Koz raked ungloved fingers through his black peppered beard. The Maisel Synagogue was a good place to stage a set-up. A contested space. Seized by the Holy Roman Emperor Rudolf II nine years ago when Maisel spoke out against him. Rudolf, head of the affluent House of Habsburg, confiscated Maisel's entire fortune. Every last tolar. Now Maisel's synagogue sat empty on the southern border of Jewish Town, abutting the roiling mass of Old Town. Its horseshoe-shaped street closed off behind wooden gates. Who would want to enter anyway, apart from the Jews?

Front and centre among the flasks, Maisel's name. The name of the Primas. In his own stolen synagogue. Maisel had been framed like an Arcimboldo painting.

Koz flicked his cloak, raking a boot across the floor. Tracks in the dust. Multiple people walked here, or one person trod enough for many. Too chaotic to read.

A glint. A taunting glimmer in the dust at his feet. Koz frowned.

He passed his cane from his ungloved left hand to his leather-gloved right hand. His right hand gripped the cane handle, fourth and fifth fingers sticking out. Unbending.

Koz crouched. Naked fingertips stroked the dust. Finding it. Pinching it. Bringing it up into the light.

A pin. Tip sticky with dried blood.

A scraping noise. Someone was approaching. Koz rose shakily. Slipped the pin into his money pouch. Turned to the opening synagogue door.

A young man entered. Heavysset. Muscular. More than a cubit taller than Koz's hunched frame. Maybe twenty years old. Half Koz's age. The young man's skin had the reddish cast of hard work. Rounded face. Neat brown hair. Pear green tunic, cheap fabric. Long, tight sleeves. Rope belt. Stepping silent in huge dark ochre boots. Some kind of soft hide.

Gripping a rolled-up parchment in one broad hand, the man gave Koz an earnest smile. Wider than Koz's had ever been. Koz squinted into the man's placid eyes.

They stood and watched each other. Motes of dust wandered back and forth between them like the tide.

The stranger didn't appear to be Jewish. Perhaps a Gentile like Koz. His breast lacked the yellow circle, that circular badge of yellow fabric used to mark the Jews of Bohemia. It wasn't a law that the Jews of Prague were keen to break. Irenka Vorel, head burgher of Old Town, had a special pillory in the shape of a sow.

Koz straightened up. Gnarled body protesting the attempt to match the elegant posture of the younger, healthier man. He adjusted his crimson mandilion, puffing out the loose ends of the military cloak. Tapped the ground hard with his cane. Opened his mouth to speak.

The young man interrupted him. 'Kozilek.' Did he have a Polish accent?

Koz closed his mouth. Smoothed his moustache. Ran the ungloved fingers of his left hand through his scrappy beard. 'What do you want with Kozilek?'

The rolled-up parchment was offered. Koz took it, unfurling it. The handwriting looked blotted. Hasty.

Kozilek the Collector.

He who outwitted Edward Kelley. He who works for the Jews of Prague.

Your time has come again.

His name is Pesach. It is your task to take him into dark places.

It is his task to bring them into the light.

MA

MA. Did Maisel send this man? Koz had been dragged here by one of Maisel's burly, mute nephews, Samuel the Elder. Normally Samuel the Younger was with his brother, but not this time. Did Maisel send this young man also?

The note didn't look like Maisel's handwriting. And the A looked different again to the M.

Koz looked up. Pesach had walked over to the dead child. Kneeled in front of the boy's face. He was peering into the ruined red mess of the child's neck.

'Don't touch him!' Kozilek moved to Pesach's side.

Pesach's face was blank. Eyes rolling back and forth across the boy's neck, as if reading the wound. Looking at the side of the the boy's head. Before Koz could stop him, Pesach rested two fingers on the boy's matted hair. Tapped the skull, once. Twice. And then Koz gripped Pesach's wrist and pulled up. Pesach rose to his feet, smooth and compliant.

Koz huffed. 'I said not to touch him!' But Pesach said nothing. Eyes still locked on the boy. Gaze wandering the pallid chest. Reading the mottled skin. The living taking in the lessons of the dead.

'Pesach, is it?' Still no response. 'Where did you come from?'

Pesach reached for the flasks, picked up the one marked 'Maisel'. Pulled out the stopper. Koz jabbed Pesach's shoulder with his cane. It was like prodding a wall.

'Put that down.'

Pesach turned. In the low light, the relaxed drift of Pesach's silent gaze seemed far too confident.

Koz thumbed the safety catch on the wooden handle of his cane. 'If you're a guard, you're missing something. Like a uniform. I guess you haven't been working for the *Castle* very long?'

Not a flicker. Pinpricks of dust continued their slow dance through the stale air.

'Okay.' Koz eyed the flask in Pesach's hand. 'Okay. Look. Suppose I believe that note. That you're here to help me.'

Pesach gave Koz the same earnest smile.

‘But who is MA?’ No response. Koz reached into his frayed grey doublet and produced the note that Maisel’s nephew had given him this morning. ‘See this? This note was from Maisel. I’ve collected debts for Maisel for eight years. I recognise Maisel’s handwriting. I don’t recognise the handwriting on your note.’

Pesach didn’t even blink.

‘Who do you work for? Who *are* you?’

‘Pesach.’ That Polish lilt.

Koz smacked the ground between them with his cane. ‘I need more than that!’

Pesach continued to regard Koz. The moment lay thick between them. Koz breathed heavy air, staring up at the taller man.

And then Pesach moved. Koz flinched as Pesach put the flask marked ‘Maisel’ back on the chair. Pesach walked away, quiet and confident. Pausing near the door a moment. Looking down at the alms box secured to the wall. Then Pesach strolled out of the Maisel Synagogue and was gone.

Kozilek breathed out. His legs buckled as he stepped backwards. Slumped hard against a pillar. Slid to the ground. Sat.

Eyes shut tight. Listening to his own ragged breathing. Letting it slow.

When Kozilek felt well enough to open his eyes, the dead boy was still there.

He shook the tremor out of his hands. Took both notes he had been given today and laid them on the dusty floor. Re-reading the note from Maisel which had been thrust into his hands this morning by a solitary Samuel.

Kozilek. My dear friend.

Hurry to my synagogue. I fear the worst has happened.

I fear it has returned.

M

Signed with an **M**. The note from Pesach, **MA**. Both notes looked rushed. Maisel was over eighty, his handwriting terrible. Maisel didn’t have a shamesh anymore. Didn’t have anyone, save his nephews. They did a lot for him. Maybe, in the desperate hours of the morning, the Samuels even wrote notes.

Koz stuffed both notes back in his doublet. Used the pillar as support as he rose to his feet. Pesach had been inquisitive, and looked fit enough to run to Vyšehrad and back without sweating. But so did the Samuels. If Maisel thought Koz needed help dealing with a sensitive matter, why not them?

Koz made for the door. Fought against the stiffness pulling his skin tight across his body. There hadn't been time this morning to ask Roder to apply the balm to his scars. Today he would be a tight lattice of regret. He scratched at his neck where glossy white branches of dead tissue infiltrated his patchy sable beard from below.

Koz stopped. The alms box by the door. Where charitable Jews had once dropped coins for the needy. Now it collected dust.

The dust was disturbed. But Pesach hadn't touched the alms box.

Koz opened it. A crumpled yellow circle lay atop the dust. He picked it up. Turned it around in his hands.

A spot of blood on the fabric. Not old enough to have turned brown.

Kozilek looked back at the child. That pale and empty thing. His eyes searched the frail body one last time. A ragged throat, ripped wide.

He turned away. Adjusted his black capotain on his wispy scalp. Stepped outside. Trading the stale air of interdicted memories for the crisp morning gloom of the streets of Prague.

Two uniformed men were approaching the synagogue.

Guards, armed and armoured. The old guard had hair like manure, runny locks poking out from beneath his dented helmet. Doležal. The younger, Nedbálek, a rounded blonde man without a helmet, readied his pike.

'Hey!'

Koz smiled. 'Good morning!' Leaning into his Italian accent. Tucking the bloody yellow circle into his doublet.

Nedbálek pointed his pike at the Synagogue. 'You're not supposed to go in there.'

'I'm just leaving.'

Doležal grunted. 'Castle land. Jewish Town's got no business here.'

Nedbálek looked at Doležal. 'Jewish Town? Then where's his circle?'

‘Ha! Haven’t you heard of this one?’ Doležal winked at the young guard in mock conspiracy. ‘He’s as good as yellow! This is Kozilek the Collector. A three-legged Italian mongrel, playing fetch for that moneylending Jewish rat.’

Incredulous. ‘*This* is Kozilek?’

Doležal reached out and grabbed Kozilek’s gloved hand. ‘What’s in the glove, eh? I’ve seen the way you move that hand.’ Squeezing as Koz pulled his hand away. ‘The last two fingers feel rock hard.’

Nedbálek bawled with laughter at Koz’s embarrassment. Doležal leered. Koz stared into that leer. Kept smiling. And then he walked away, making for the gate at the end of the street.

Koz felt the head of a pike slap against his shoulder.

‘Hey! We’re not done with you!’

‘But I’m done with you.’ Koz turned back. Smiling away the stinging in his shoulder. Thumb on his cane’s safety catch.

Doležal was sneering. ‘You trespassed on Castle land.’

‘And you’re not from the Castle.’ Koz pointed at the livery on their breastplates. Silver towers on a red shield. Old Town. ‘I’m guessing Vorel sent you. But why today? Why send you to a gated street nobody lives on, to guard a Synagogue nobody goes to?’

They scowled in confusion. Koz tapped his cane on the cobblestones. Sizing them up. He’d played it too confident. If he’d shown more frailty, he could have surprised them. And he didn’t know if he had enough toalars for a bribe.

So Koz looked up, behind the two guards. At the Maisel Synagogue. His eyes focused on something, and his smile dropped. Shocked.

Nedbálek and Doležal turned around and looked up at the synagogue.

Koz lunged forward, a minor grand jeté. Adjacent to Nedbálek. Slapping his cane hard against the front of Nedbálek’s throat. Nedbálek gagged, falling back. As Doležal stepped forward, Koz box stepped around him. Mandilion fluttering like a moth’s wing. He hooked the crook of his cane around Doležal’s neck and yanked. Doležal yelped, going down. Helmet flying from the top of his head like a popped boil.

Koz reached into his money pouch. Tossed silver coins on the gasping men. 'Couple tolars for your trouble. Soothe your throats with beer in a quiet tavern. Or, you can let everyone know that a three-legged mongrel got the better of you.'

Doležal glared up at him. Nedbálek flailed at his neck, gasping.

Kozilek strolled down the street. Opened the gate. Trilling with energetic fear.

'Tell Vorel I'll see her in church tonight.'

Chapter 2

The morning bustle of Prague swallowed Kozilek whole.

Late August sun made short work of the morning chill. Light found its way into the street, glancing off dormant lanternposts. Thickening the air with the spectre of last night's rain. Koz readjusted his cloak, bridling at the sweat.

No sign of Samuel the Elder, who had brought him here. Koz knew he should report to the Primas. Even now, Vorel's guards would be inside the synagogue. It wouldn't be long before the news spread.

The blood libel had returned.

Koz reached into the empty money pouch Maisel had given him. Pulled out a folded note. Work order for the Hebrew month of Av. Tomorrow, Av would become Elul. Four uncollected debts on the list, all local, all Old Town. None seemed large enough to justify framing your creditor for murder. But large was relative. Those without work struggled to repay their debts, and the jobless increased by the day.

Worth calling to collect. Just to see.

Koz slung his red cloak over one shoulder. It used to be that he would spend each month running all over Prague. From Old Town across to Lesser Town, from Hradčany down to New Town. Bouncing around the Hunger Wall surrounding Prague like a leaf on the Vltava, trapped in the eddies around Stone Bridge. Dodging the imperial shadow of the Castle in the north and the industrious shadow of Vyšehrad in the south.

Koz hobbled, cane-first, down the street. It was all so exhausting. Maybe it was just as well that only Old Town borrowed money from Maisel now. Besides, Koz's flimsy Italian accent had never gone down well in Lesser Town. Too many Italians.

A circuitous route to the first house on the list. The warmth of the coming day summoned comfortable scents. The rounded aroma of porridge. Sharper tangs, of beer, or pickled cabbage. Suggestion of spices from high, gilded windows. Each delight mingling outside with the musky stench of human movement. An acerbic gruel of sweat and urine. Koz blended right in. Traders and travellers, traitors and beggars. Everyone came to Prague eventually. Shit in the streets, both horse and human. Though horseshit had all but disappeared.

Who needed horses when you had golems.

Hearing the insistent clatter of hooves, Koz ducked aside into an archway. They'd bothered to shod this one. Metal hammered into clay, just for show. It's not as if golemflesh needed protecting. The more forcefully you struck it, the harder it became.

Like most nadler-carts, this one had been sculpted to look like a horse, or at least the front portion of one. Immaculately painted chestnut brown. From the midsection back, its torso tapered and sloped, clay flowing into a broad shovel shape. Kept above ground by wheel and axle. Usually nadler-carts ferried people, like open carriages of old, with a bench for passengers suspended behind wooden slat walls. This one ferried cargo, its lumpy payload covered in sacking. A crowned 'R' embossed on its equine chest. Not a Guild nadler-cart. An official Rudolfine golem. Perhaps even the work of the first Royal Golemsmith, before his retirement. Arcimboldo, the inventor of the nadler-cart. Or perhaps the work of Tycho Brahe, the second Royal Golemsmith. The last.

Decades ago, 'nadler' had been a Jewish slur for an illegitimate Jew. Levelled at those forced to apostatise by other faiths. One whose lineage, or blood, was considered impure. The Maharal forbade the use of the word. Yossele enforced the ban. Yossele, the first true golem of Prague. Everyone knew the stories. Either you read the personal account of the late Rabbi David Gans, or you heard stories of Yossele at the hearthside. Saviour. Monster. There was a Yossele parable for every occasion. The first and last golem guard.

But Yossele had been gone for twenty years. Laid to rest by the Maharal in the Old New Synagogue in 1590. Two years after that, the Maharal and his family moved to Poland. Then, in '95, the first Rudolfine golems emerged from the Castle and out into Prague. Arcimboldo had stolen the secrets of the sofrim — Jewish scribes, whose task it is to create the mezuzot, tiny scrolls in small cases blessing Jewish doorways with their holy words.

With the knowledge of the sofrim, Arcimboldo taught the Gentiles of the Rudolfine Court how to make scrolls that would control Vltava clay. None had replicated the Maharal's finesse, however. No golem since Yossele had ever passed for human, no matter how they were painted. They were too lumpy, or too smooth. Too obvious. Even the finely sculpted golems in the Castle were too beautiful to be real.

With the blessing of Rudolf's Letter of Majesty in 1595, Arcimboldo founded the Golemsmith Guild at Vyšehrad. Methods kept fervently secret from the world. Only Prague would have its golems. Then the following year, amidst fervent calls for him to return to Prague from his solitude in Poland, the Maharal disappeared completely. Now, the Jews of Prague had spent fifteen years living in a world where their holy defender had been bastardised. Mass produced. Illegitimate, impure. Tongueless slaves for the rich. For the Jews of Prague, 'nadler' was synonymous with golem. For greater Prague, for nadler-carts, the slave-cart hybrid that was the most common golem on the street, this nickname had stuck. Arcimboldo's pilfered legacy.

Koz watched the Rudolfine nadler-cart canter by, its face a mockery of pride. Rudolfine golems weren't for common people. Other nadler-carts, Guild models, could be paid for transport. If you had enough silver for the coin slot, a nadler-cart could take you all the way across Prague. Unless it was the Shabbat. From Friday to Saturday evening, no golems worked, or even moved. The last remnant of their Jewish origins.

Up ahead was Sladký House, new to Kozilek. A modest sum owed. Koz paused at the broad stone archway. Rested a bare palm on it, hot olive skin drinking the last of the cold night from the stone. Blinking away the sweat in his eyes. The death of the morning.

Koz rapped on the wooden door. He was greeted by a dark-skinned man in leggings and a vest. Grateful smile. Anxious eyes. Sladký. Koz's first time meeting the man. Within the house, the sounds of family at table. The smell of breakfast. Of blood sausage. Fresh fruit. They had done well from the loan. Sladký looked prosperous. Nervous — anyone who borrowed money from Maisel met Kozilek the Collector sooner or later — but prosperous.

Sladký invited Kozilek inside with a smile. Inside, two young brothers bickered, and a woman made soothing noises. Mother protecting her children from each other.

Koz shook his head. Nothing for him here but the debt. Sladký slipped back inside. Returned with what was owed. Grateful. Koz gave Sladký his receipt so he could pick up his collateral from Maisel. The door closed. Familial sounds dull, now. Muffled.

Koz loitered, counting his own tolar. Rubbing his legs. Not enough for a nadler-cart today.

Hiding in the crowd, Koz walked south. Looking up under his capotain. Hunting for eyes above street level. He frowned. To his right, a moist breeze from the river gave its gentle caress. An alley. When the crowd thinned, Koz chased the Vltava's cool breath into the alley mouth. People milled here, drunks and vagrants. But he didn't mind being seen by people.

Koz glanced up again. It didn't matter. The eyes and ears of the Castle hid in plain sight.

Wherever buildings were made of stone, mock-human architectural sculptures had always jutted from their sides. Holding up archways and balconies, staring down at street corners. But when the golems came, powerful and tireless, stone buildings had become easier to erect. Each with their own mock-human figures. Since '02, if you knew what to look for—a glinting eye, an incongruity in stone—you could see which of these sculptures had been secretly replaced with golems.

They were Tycho Brahe's last invention. Unleashed upon Prague the year after his death. His last gift as the last Royal Golemsmith of Prague. Immobile, elaborate things. Glinting painted garnet eyes. Stealthy simulacra. Not passing as human, but passing as stone. Street people nicknamed them 'likho'. Eyes of misfortune, an old legend. Like all golems, the minds of the likho were the scrolls in their head. Thoughts transposed into recorded words. But likho thought only one thing: *Watch*. Not guardians, like Yossele. Informants. Fingering illegitimate golems for the Guild, at first. Now they also sought traitors on behalf of the Castle. Rudolf's covetous brother Matthias had clawed at the throne, ravenous, for a decade. Anyone who spoke Matthias' name before the likho would likely find the Castle knocking on their door. The likho didn't always get it right. But they got it right enough. And there was no way of knowing what the Castle would bid the likho to look for next.

Koz skittered down the alleyway's sparse cobblestones. Downcast. Capotain hiding his face. Between the buildings, human flotsam collected, scavenging, scraping. Koz weaved around two vomiting drunkards. Feet skidding on exposed dirt and ancient filth. Chiding himself. He wouldn't be running himself ragged like this if he had gone straight to Jewish Town. No likho there. No nadler-carts. Jewish Town forbade all golems from passing through their gates.

Patterns emerged in the alley. The mud nearest the walls was marked with fresh boot prints, and deep, regular scrapes. Below the likho. The nachtkrapps had worked here recently, those black-clad servants of the Castle. Carrying padded ladders, they plucked full scrolls from the heads of the likho by night. Slotting in new ones. Carrying the collected moments of the populace in bulging sacks back up to Prague Castle. You never quite knew what the likho had seen. What the Castle knew.

Koz paused in a doorway to catch his breath. An old man lay at the threshold. Mottled dog camped on his chest. They both leered at Koz. Koz leered back. The mud was scraped here as well. Koz sneaked a glance up the face of the building. Eerie clay faces watched the alley with indecipherable gemstone eyes.

Koz counted the ladder scrapes in the alley. They went all the way down. The nachtkrapps had been thorough last night.

In a distant archway, three angry men wielding clubs stood around something. A lithe humanoid golem, hunched on all fours. A missive golem. A messenger. This year's Guild model. Smooth clay, slender. Cheap. It flailed a chiselled terracotta hand, palm split down to the wrist, as the men circled around it. Three porters. Not messengers themselves, but labourers. Labourers had been the first to lose their jobs to golems.

The missive golem couldn't stand. They had smashed its mock-sandalled feet. When it tried to crawl away, two of the porters beat at the golem's neck. Their clubs were lengths of Vltava driftwood. Cracked planks from a Vyšehrad dredging house. The third climbed atop the golem's back, jeering. 'Hominem Mundi!' The other two men took up the call. 'Hominem Mundi!' The people of the world. The will of the mob. In these last few years, the name of their anger.

All at once, the top of the missive golem's head came unstuck. Peeling open at the clay hairline. Its dense scroll unfurled into the alley, sparkling with inlaid silver. In one last

mockery of life, the dead golem spasmed hard. The porter straddling it was flung forward. Koz winced at the wet crack as he hit the cobblestones, arms first. The golem crumpled. Coming apart. The porter screamed. Bone had pierced the skin of his forearm. His friends dropped their driftwood, agape. The porter was lucky to be flung clear. Golems had a chamber of green vitriol and brimstone in their chest. Corrosive blood in a breakable heart. But that was the last of the porter's luck. The likho in this alley had surely seen everything.

The old vagrant at Kozilek's feet laughed. Koz cleared his throat. The golem was still. Its placid, unblinking gaze fixed on Koz. Robbed of paper thoughts to think.

Cheeks aflame, Koz ducked out of the alley and back into the street.

East, now. Quick. Near the Bridge Street markets, the crowd thickened. Bodies jostled, bustling. Congesting and breaking apart. Winding streets, rows of tall, narrow houses. Soaking up the summer sun like heels of bread. Gothic façades feigned nobility above. The human Vltava flowed over the cobblestones below. A young beggar girl chewed on the discarded rind of some alien vegetable, watching her friend lift the coin purse of an unconscious noble. Silver coins grasped by tiny fingers, hands black with filth.

Machta House next. An old favourite. Koz hobbled under the shadowed portico below its looming white face. Vaulted ceiling hiding the front door from the sun. Koz leaned a while, letting an archway pillar take his paltry weight. Shook his head. Shook away the dead stares creeping into his sight.

When he felt steady enough to stand, Koz raised the head of his cane and knocked on the elephantine front door. Grey paint flaked as it thundered. Knocking on an overcast sky.

The door opened a crack. Machta. A glowering old woman, with skin like acidified milk. Beyond her, Koz could hear the heavy, uneven footfalls of her blackmarket butler. A pot-shop golem. It had one leg shorter than the other, and looked like it had been sculpted in the dark. It would never bear a Guild mark, the embossed 'G' of the Golemsmith Guild, unless Machta was willing to pay more than the golem cost to get it licensed. She kept the thing housebound so the likho wouldn't see it. But staying inside suited Machta's disposition. Koz heard she paid beggars to fetch her food and water.

Visits to Machta were always swift. She paid Koz quickly, both in tolars and unkind words. Ripped the receipt for her collateral out his hands. Impolite. Petty, but not cruel. Koz smiled at the slammed door. Relieved himself on the portico archway. Returned to the street.

Koz vied for space amongst the flow of porters and tradespeople bringing their wares to the Bridge Street markets. A tall woman in blue carried wool under both arms, scolding her straggling daughter, a language Koz didn't recognise. Three fat, garlic-infused men sat atop a nadler-cart laden with cured meats. Whistling in harmony as they navigated the cobblestones. A member of the Golemsmith Guild sweated clean through his florid vestments, leading a line of terracotta bipedal livestock to market. Immense tongueless servants. Well beyond the pockets of the poor.

The Guild salesman himself held a carved expression of golem determination as common people spat on his shoes. Savage oaths in his wake. Bitter complaints. Crowded streets were the musculature of the city. Twitching in palpable unease. The restless spasm of the mob. Muttered words. Murmurs of agreement.

'Hominem Mundi.'

Koz hid his face. Limped away. He didn't know what the likho thought of those words yet, but it couldn't be good.

He checked the work order. Counting what was left in the month of Av. Family at the Argil Ring was next. Minuscule loan, barely overdue. And last, with no known address, the unctuous name of Philip Lang. Like every month. The only thing that changed was the increase in interest. Rising along with the certainty he would never pay it back.

Koz felt eyes on him. An Old Town guard, arms crossed. Grey moustache like a soiled rat under a puffy red nose. Koz pocketed the sheaf of paper and gave him a wave. The guard didn't blink.

Hoofbeats, loud and quick. Nadler-cart. Koz parted with the crowd, putting himself across the road from the guard. Nadler-cart's chest bearing the embossed 'G' of a Guild model. Dull red garnet eyes. Ravaged buckskin paint giving way to terracotta golemflesh beneath. Two stout men jostled on the bench in the back. Expensive clothing, sparkling rings on clean hands. Dignitaries.

The crowd parted before the nadler-cart. But one figure remained down the road. Old woman in a shawl. Facing the wrong way. Her back to the oncoming hooves. Koz had seen her around Jewish Town.

Yossele was the only golem that had ever been built to be violent. Modern golems were designed to be pacifists. Never defending themselves, only ever fleeing from their

attackers. But there was nothing in the golem's scroll that could prevent it from hurting someone unintentionally. The worst of it had been last year. The Riot of Krocín Fountain. Countless Protestants cast down under stampeding nadler-cart hooves.

The dignitaries in the nadler-cart shouted at the Jewish woman. She didn't flinch. Hard of hearing. Koz gripped his cane, too far away to jump. He bellowed.

'Nadler!'

That did it. She turned, furious. Towards Koz. Towards the cart.

Garnet eyes locked on to the old woman. The nadler-cart reeled, equine mouth open in a soundless whinny. It pitched hard to the right, slamming the dignitaries into its wooden railings. The old woman stepped aside. Nadler-cart missing her by a hand's width. It capered on, dignitaries screaming abuse at the woman. They saw the yellow circle pinned to her chest and let all fury fly.

She ignored them. Looking at Koz with moist eyes. Drew her shawl tight. And then she disappeared into the crowd.

Koz trembled. The Old Town guard hadn't moved. Hadn't flickered a single whisker of his grimy moustache. He stood, arms crossed, staring into space. No better than a golem.

Koz checked the work order again with shaking hands. The words, the numbers. All illegible.

He looked up at another nadler-cart approaching. Guild model, empty. For hire. Heading north, in the direction of Old Town Square. And beyond that, the gates of Jewish Town.

Koz skimmed coins. From Sladký, from Machta. Raising his cane, lured the nadler-cart to a halt and clambered inside.

Chapter 3

Kozilek found Mordecai Maisel alone at his desk. Maisel's threadbare office was tucked away behind a classroom in the Talmudic school, within the kloyz beside the Jewish Cemetery. Maisel shrunk the tiny office further with his size. His heavy, quiet presence. The only visual evidence that Maisel's office extended more than four cubits in any direction was the required mezuzah on the door frame. A tiny scroll case with the instructive words of the Torah on the tightly rolled klaf within.

Samuel the Elder stood guard outside Maisel's office door. Yellow circle bright on his fitted sleeveless jerkin. Still no sign of Samuel the Younger. Like their octogenarian uncle, each of the Samuels were twice Kozilek's size, in almost every dimension. But unlike Maisel, the boys weren't twice Kozilek's age. Koz gave Samuel's titanic bicep a companionable pat. Brushing past the young giant on his way inside.

Maisel looked fresh, wrinkled face pink and raw. Neat white tunic. Black jacket. Yellow circle and white yarmulke, both immaculate. The broad shouldered, plump Jew dwarfing his bare desk. No evidence of the finery he had been afforded during his nine-year stint as Court Jew for the Holy Roman Emperor. Riches long since confiscated. A signet ring on Maisel's finger was the only ornamentation in the entire room. A Shield of David. A gift to Maisel from David Gans not long before his death.

Maisel gestured to the empty chair. Kozilek sat across from his employer, blinking away the midday light angling through the only window.

'Koz.' The old Jew tugged at the snowdrift of his beard. 'Good to see you, my friend.'

'Maisel.' Koz tossed a bulging money pouch onto the desk. 'Sladký, and Machta. I'll finish Av soon. Bring you the rest.'

'Will you?' Maisel took the pouch, emptied it. Counted tolar.

'Of course. The Argil Ring isn't far.'

'And?'

Koz fidgeted. Scratched the scars under his beard. A peppered black hedge compared to Maisel's soft silver topiary. 'I'll find Lang. Get what he owes.'

'That's not what I meant.'

Koz's cane winnowed at the floorboards between his feet. 'Yes. I know.'

'Is it true?'

Koz said nothing.

Maisel nodded. Licked dry lips. 'Did you...?' Laying one hand atop the other. Concealing it from view.

Koz flared his nostrils. Shook his head. 'The damage is done, Mordecai. A buried child is still a dead child.'

'I meant only that we could have destroyed the libellous part of the crime. But you're right, of course.' Maisel stared into his signet ring. His deep voice was soft. 'It says in the Talmud that later hardships make us forget earlier ones. But this, it seems... no one can forget. The roots of such a hateful idea have dug in too deep.'

'Well.' Koz clenched a gloved fist. 'If someone has done this because they're sore over a recent debt, it's no-one from Av. Machta is too shy. Sladký too thankful. On paper, the family at the Argil Ring doesn't owe enough. I can check last month's debts, but none of them seemed resentful. It could be someone from earlier. Maybe someone who never got their collateral back.'

Maisel traced the Shield of David on his signet ring with one large fingertip. 'Lang owes a considerable amount.'

'It's not Lang.' A burning in Koz's throat. 'I know he proudly renounced Judaism. I know what he says about you. But he wouldn't. Not this.'

'It is important that this be resolved with the utmost haste.'

'I know.' Koz tapped his boot with his cane.

'So far, there is only one dead child, one accusation. But once people blow upon this flame...'

'What about next month's debt collection? Elul?'

‘Elul is dry. We have no new accounts.’

‘What?’ Koz stopped tapping his boot. ‘Why? Is it the other Elders of the kehillah? Or that Judenrichter?’

‘No. The Jewish magistrate still argues against moneylending, against any interaction with the rest of Prague. After Arcimboldo tricked us, tricked *me*, into getting access to the sofrim...’ Maisel fidgeted in his chair. ‘I cannot fault the Judenrichter his misgivings. But as long as I remain Primas, arguing against my moneylending is all he can do.’

‘Is Vorel scaring people away? Is she pressuring other Protestants, or the other burghers?’

‘I don’t know.’

‘I was planning to drop by Our Lady Before Týn tonight. I can look for her now. Ferret her out of her little tunnels. She might listen to me.’

‘No.’ Maisel looked up at Koz. Shied away. ‘Irenka Vorel hates us. She made that clear when she tried to petition for our expulsion last year, after Krocín Fountain. It confused me, at first. The way she blamed us for the golem accident that caused the riot. As if we had killed those Protestants ourselves! But her views only reflect those of her dead husband Mates. You know how she grieves him.’ A rattling sigh. ‘Prague wants us gone. If only Rudolf still held Jewish Town in high esteem, as in the days of the Maharal. May he yet be found.’

‘May the memory of the righteous be a blessing.’ Koz watched Maisel’s eyes. They wouldn’t meet his. Wouldn’t rise to the spoken honorific of the dead. A fly buzzed, oblivious, head-butting the window above them.

Rudolf, vain and mercurial. Maisel had once funded Rudolf’s war with the Turks. Paid for the marlstone Hunger Wall to be extended around all of Prague. Maisel had been Rudolf’s first, and only, Court Jew. It was at court where Arcimboldo and Maisel became friends, for all that was worth now. The Maharal had just moved to Poland, leaving an empty space on Maisel’s heart. Companionship with a polymath portraitist filled it. It was only in hindsight, after Arcimboldo was made Royal Golemsmith and the Guild was founded, that Maisel realised that Arcimboldo had used him. Used the name of the Primas to talk to the sofrim. To learn their methods and use them to make golems.

And then 1601 came. A dark year for Jewish Town. David Gans had his throat cut in an alley. Rudolf, in the pit of a melancholic spell, refused to have it investigated. So Maisel finally spoke out against the Emperor. Decried his waning support of Jewish Town. Decried his golems. Rudolf rewarded Maisel's temerity by confiscating Maisel's entire fortune. As Court Jew, Maisel had been the only Jew allowed to ride through Prague on horseback. Now Maisel had no horses, and Prague had a nadler-cart on every street. And here sat Maisel, behind this tiny desk, in this tiny office. While Rudolf counted treasures in his Kunstkammer. His gallery of hoarded wealth. And Prague blamed Maisel's moneylending for bleeding the world dry.

Yet Maisel had remained the Primas. For his defence of Jewish Town. For all Maisel's riches had once done for Rudolf, they had done more for his people. Pavings their streets. Renovating the mikveh. Building the hospital, the poorhouse. The kloyzn. Even after Rudolf took his money, and a plague year took his wife, his children, Maisel's service to his people never faltered.

Kozilek's glove creaked as he gripped the black wooden head of his cane.

'I'll stop it.'

Maisel shook his head. Beard whispering against his tunic. 'I needed only your eyes. My Samuels are powerful boys. Capable. But like oxen, they can be slow to think. I just needed you to *look*. To tell me if it was true.'

'I'll find them. Whoever is behind the blood libel. I'll find the young boy's killer. And I'll damn well make sure they never kill again.'

Maisel rubbed his signet ring. 'It's our fight. And it's not your place to pass judgement, old friend.'

the splash, searing. The animal scream of his brothers.

the smell

Koz blinked away the invasive memory. 'I want to help, Maisel.' Forcing a smile. 'You can rely on me.'

'But I can't pay you! Even if you were to succeed, Elul is dry. There will be nothing left to collect.'

'There's always Lang. Blood libel or not, he owes me a conversation.'

‘Tread lightly. He did terrible things, while he was Rudolf’s secretary. Everyone knows he killed people.’

‘I’ll find him. Lang thinks the world is his friend. I’ll show him it’s not.’

‘Lang has never seen the value in rules.’ Maisel perched two fingers on his aquiline nose. ‘You have no leverage. The threat of keeping his collateral means little to him.’

‘That’s because he stole it.’ Lang’s collateral was a fish skeleton sticking out of a rock. He would have pocketed it back when he had access to the Kunstkammer. ‘I’ll see to it, Mordecai. Lang will pay what he owes.’

‘If you must. Just remember, the door to evil-doing is wide, but the return gate is narrow.’ Maisel pointed a finger at Koz. ‘You must be careful. Lang may still have influence at the Castle. And this, other matter... it is more important. We need more allies. Not angrier enemies.’

‘So you’ll let me do it?’

Maisel regarded Koz. A long moment. Eventually he pulled off his signet ring. Held it out in a shaking hand.

Koz rose. Took the heavy ring between his fingers. Slid it onto the little finger on his ungloved hand. Anchoring it.

‘May it help you on this task, Kozilek. For what little this means to the rest of Prague. For what little the Tzemach David, may Hashem avenge his blood, meant to Rudolf.’

The Shield of David shined up at Koz. Polished. Well-worn. Expectant.

Maisel stacked the tolars, Sladký and Machta. Put them back in the pouch. Pushed it across the table.

Koz stretched his hand. Feeling the way the ring changed it. He reached out for the money pouch. Paused. ‘I don’t know if I can pay this back.’

‘I lend you nothing. Either this is payment for a job done, or one last gift to a friend.’ Maisel reach down and opened a drawer. ‘As is this. All the way from your Italian homeland.’

A heavy cylindrical object wrapped in sacking. Koz took it. Glass jar. Brimming with viscous white clouds. Streaked with brown. Koz inhaled the familiar musk. Tinged with thyme and myrrh.

‘I’m surprised you didn’t smell this fresh lot of balm when you came in.’ Maisel pulled a white cloth from his pocket. Wiped the grease from his hands. ‘I asked Delmedigo for a larger amount. It should last you some time.’

Koz hefted it. ‘Glass jar?’

‘No more clay pots.’ An empty chuckle. ‘Strange times to live in, when having glass blown costs less than clay.’

Koz stared into the heavy mass of bear grease. Enough to keep his scars supple for a month. Maybe more, if he used it sparingly. If he wasn’t about to spend his days chasing things in the darkness. Bringing them into the light.

Koz walked to the door. Turned back. Looked to Maisel.

‘Pesach.’

Maisel wrinkled his nose. ‘Sorry?’

‘You know. Pesach.’

‘*Pesach?*’ Maisel corrected Koz’s pronunciation. Hebrew. ‘Passover? That isn’t for months. Not until Nisan.’

‘Oh. Of course.’ Koz hefted the jar in his right hand. Last two fingers tapping stiff against the glass. Staring absently into the into the Talmudic school room beyond. Carefully arrayed desks, each bearing books from the printing houses. Pages crisp, ready. Waiting for students, studious and humble. Unscarred by life. And in the tiny office behind, Maisel’s tiny, polished desk. A plank of Vltava driftwood bobbing atop unseen currents.

Maisel stood. Rising slow on old knees. Coming out from behind his desk to lay a meaty hand on the smaller man’s shoulder.

‘Remember. This isn’t your fight. You need only investigate the crime. Bring us information. Leave the solution to us.’

Koz lifted Maisel’s hand away and let it drop. Let it swing loose like the young boy’s corpse against the synagogue wall. Pushing Samuel the Elder aside, Koz showed himself out.

The Primas called out after him as he left the kloyz behind. A soft baritone echo.

‘Give my regards to the lovely Roder.’

Chapter 4

Koz emerged from the kloyz into the crowded street. Jar of balm gripped tight under his arm. A treasure. Important to take it home before making his next move.

Koz looked west, towards the Jewish Town Hall. The height of the Old New Synagogue. Slanted brick crenellations raking against an overcast afternoon sky. The way that life clustered here around this central point made Bridge Street look like an open field. Jewish Town was a tiny urban bubble, rammed into the crook of the Vltava's arm, hemmed in by Old Town. Buildings, people, all crammed shoulder to shoulder. Even the Jewish graveyard was fit to bursting. Dead piled deep, tombstones packed close. The crowded teeth of the afterlife.

Shortest path out was a jagged line. Koz threaded through the market. A sea of yellow circles and humble garb, berets and earflap caps worn to guard against future rain. Conversation warmed the air, laced with the savoury scent of street food. Fresh knish. Stuffed with ground meat. Koz bought a quick lunch. Walking, he bit into the hot parcel. Burned his gums. Choked it down. Passing by countless wooden storefronts, single-story, saddle roofs. All boasting wares. Tailors, button-makers, cobblers, silversmiths and goldsmiths. Glassblowers, bookbinders, distillers, musicians. Smoke and glue and musty fabric.

Koz wove through back alleys, courtyards. Beautifully paved. Emerging from the comfort of the labyrinth near the south-east gate. Here, Jewish Town's border flowed around a stout half-barrel of stone. Church of God's Mercy. Old Town guards leaned against the church, watching the gate. Koz started like a caught hare, but they were unfamiliar. No Nedbálek, no Doležal.

Looking back across Jewish Town, Koz took in the proud apex of the Old New Synagogue. Where the Maharal had laid Yossele's dead body to rest. Even when Rudolf and the Maharal had been friends, no one from the Castle had ever been permitted to enter the synagogue. It remained an uncrossable line. Before Koz, the south-east gate looked like every other gate into Jewish Town. Cracked stone, blackened wood. Scarred from every attempt to breach it. Cowards lashing out at hated enemies when they thought the throne wasn't looking.

Koz scampered through the gate. Drifted into the crowd, heading home. Tilting his capotain down to hide his features from Old Town likho above.

Gone were the sleepy scents of morning. Under a blanket of cloud, Old Town perspired. Koz could taste its sweat. Sweet like stewed onions. Windows bloomed open to the street, in every habitable niche and curve. Unemployed labourers leaned in alehouse doorways. Drinking one day into the next. Koz salivated at the smell. Spat. Stumbled over cobblestones, swapping his cane back and forth. Jar awkward under his arm. A missive golem sprinted through the crowd, nimble. Brass message tubes in hand. Outrunning the feral cats that scattered in its wake.

By the time Koz walked into the open breadth of Old Town Square, the sun had slit a bright hole in the clouds. Baking the moisture out of the air and into the skin. Scattered people wandered the square. A fragrant melange of skin tones and accents. Milling about the centre of the world. Nadler-carts skimmed the square's edge, no longer permitted to cross the square proper. Because there, dominating the square, sat Krocín Fountain. Its elevated, thirteen-sided red marble basin taller even than the Samuels. Resplendent with bas-reliefs. Wreathed figures, posing with fruit. On the central pillar of the fountain writhed a panoply of gargoyles and mermaids.

No likho here, if there ever had been. Not even Rudolf was fool enough to associate Krocín Fountain with golems after the riot last year.

Mates Vorel, damn him. Mates hadn't been as cunning as Thaddeus, the Maharal's storied nemesis. But what he lacked in guile he'd made up for in anti-Semitism. The old burgher of Old Town first made his emnity known in '08, two years ago, when Rudolf's traitorous brother Matthias attempted a leadership coup. In the confusion, Mates led an opportunistic mob to Jewish Town's gates. But when the Castle got word of this, guards

were sent across the river. The invasion was halted. The fires put out. Mates and his mob were sent home, chastened. Nothing more.

Then last year, Rudolf penned the religious Letter of Majesty that granted Protestants and Jews the same religious freedom as Catholics. Rudolf's motive was clear — in '08, Matthias had claimed power over Hungary, Austria, and Moravia. Rudolf had his golems, but he needed his people. The religious Letter of Majesty in '09 was a transparent attempt to consolidate every worshipper in Prague to Rudolf's side. To defend his right to rule.

The Protestants were elated. Finally granted protection against religious persecution. The right to open worship.

But this freedom meant nothing to Mates Vorel if he had to share it with Jews. So when Jews and Protestants flocked together at Krocín Fountain, coming together in raucous celebration, the old burgher of Old Town made his stand. Hammer in hand, he incited a nadler-cart stampede.

No Jews died in the stampede. But a lot of Protestants did. Including Mates Vorel. He died not a martyr, but a fool.

Koz passed the fountain. He hadn't been present for the riot itself, though he lived close. He'd heard the screams from his window. Seen the aftermath. Cracked cobblestones, smeared with strewn bodies and blood. Hoofprints and cartwheel treads patterning the gore. All clean, now. Shining. Like the copper memorial plaque Rudolf ordered set into the fountain's side. Near the corner where the skull of the old burgher of Old Town had been split like a pinched grape.

Forget the former things; do not dwell on the past.

(Isaiah 43:18)

Beside the plaque, oblivious, a pair of children splashed each other. Raking tiny hands through the bucket of water their beleaguered mother had collected from the spout. Laughing. Frolicking in the spray.

Koz kicked his cane and turned west. Heading for home.

The crowd thickened. Diffuse loiterers clustering. Spectating something. Not a show. Years ago, the Rudolfine Court had been a source of constant festivals. Parades. Salutations to foreign dignitaries. Dedications to Habsburg royalty. Every other day, acrobats and bards,

preachers and charlatans. From where Koz and Roder lived on the square's western edge, on the third floor of the White Lion, the view of revelry could be breathtaking.

But there was no revelry here. A large, murmuring cloud glutted the southern edge of the Old Town Hall. Blocking the way between Koz and his front door. Koz wormed around the fringes. Wedging his cane between people, driving them apart. People glared down at him. Already irritable. Everywhere Koz looked, there were frowns of consternation.

Koz stopped. Stuck at the southernmost edge of the crowd. Beneath the colourful geometric splendour of the Astronomical Clock, people were condensed tight. Someone stood atop a wooden stall, proselytising. His boiling ire rippling through the mob. Koz pushed his way closer. Putting a face to the familiar voice.

The spry old man on the stall had the sparkling eyes of a prophet. Black doublet, heavy cape, despite the warmth. New cane, ominous red wood. Silver handle. Colourful hose over restless legs. Curled copper moustache, pointed beard. Peppered with spittle.

If the crowd knew him as Hieronymus Scotus, or Odoardus Scotus, or Jerome Scoto, maybe they wouldn't be listening. But he had never used those names here. Never let slip that he had once been as predatory as the fallen alchemist Edward Kelley. Settled now in Prague, he swindled under the name Koz knew best. Alessandro Scotta. Peddling false reagents from his stall. Stag-horn jelly, vitriol of Mars. Sly eyes. Steady hands. None too rich or poor for his attention.

Scotta's searing molten voice rolled out over the crowd. 'Catholics! Protestants! The religious Letter of Majesty of 1609 proclaims us all equal. Honest. Hard-working! But were we ever asked, *ever*, if we wanted the golemsmithing Letter of Majesty of 1595? If we wanted our days of honest work to be done *for* us?'

Nodding, everywhere. Nothing united the streets like golems.

'Did the Guild ever ask *us* if we wanted to share Prague with otherworldly beings? Did they *ever* ask the people if they wanted to be replaced by *dangerous slaves*? We have already borne witness to the *inevitability* of their *mutiny*!'

The crowd grumbled in anger. Scotta knew how to unite the lost. Koz had fallen under the wing of the older man when he was barely a man himself. The guidance Koz needed, he found in Scotta. But people aren't compasses. They don't always point north.

Up on his cart, the old fraud threw his head about, rapt at his own evangelical power. For just moment, Koz glimpsed it. The off-centre bald patch in Scotta's red mop. The shine of the ragged white scar. It led right through Scotta's skull, meeting a scar under his cheek. The day Scotta's lies caught up with him. The path of the bullet that had changed everything.

Scotta punched the air, crowing. 'Who among us remembers the Riot of Krocín Fountain? How Old Town Square was paved with *innocent human blood*? Rudolf was quick to forget! His own people!'

Koz flinched, looking up. Peering out from beneath his capotain. More than a few likho at this end of the square, traitorous telamones all. Speaking ill of the Guild was one thing. Those who spoke ill of the Holy Roman Emperor faced imprisonment. This many people, there was no telling how many the likho would recognise. Maybe that was the point, to rely on numbers. Koz grit his teeth. Cold comfort to those the likho *did* recognise, whether they attended the rally or not. Cold comfort to those who would be thrown in Daliborka. A hole from which no light escapes.

'I ask you. *Where* does the loyalty of the Holy Roman Emperor *lie*?'

Koz yanked at the short collar of his doublet. Pushing for the back of the crowd. Eyes scanning for Old Town guards. Some wandered, far away. Some leaned on pikes.

But more Old Town guards stood in Scotta's crowd. Listening. Intent. Willing to risk being seen by the likho. Unfathomable.

'This world is *ours*! We will cede it to *no one*!'

Scotta's face shined red. Boiling with zealotry.

'Hominem Mundi! The people of the world! *Hominem Mundi*!'

Scotta thundered down at his congregation. A chorus of hate roared back. For this rallying cry, for this moment, these fools were risking their lives.

Koz made it to the fringes just as the armoured footsteps did.

Imposing grey shapes. Castle guards, flanking the crowd. Koz backed into an alley. Backed into a scowling Castle guard. Reeking of tobacco and wine. Koz gasped, shied away. Clutching his jar. Pulling his rumpled mandilion up around him like a shawl. The guard glanced at Kozilek's wretched posture, his cane. Koz flinched away.

The guard's bloodshot eyes rose, sweeping the cacophonous mob. Falling not on Scotta. There was a young woman in a blue dress, near this side of the crowd. Shouting something different. She tore her white bonnet off her tangled russet hair, pumping it in the air in a tight fist.

'Matthias! Matthias!'

Koz shook his head, teeth clenched. People around the woman paled. Stepped back. They knew what proximity to that name would cost them. But it was too late.

'We need *Matthias*! Where is *Matthias*!'

The bloodshot Castle guard in the alley raised his shortsword. The guards behind him followed suit. As one, they surged forward. But the crowd was already scattering. The name of Rudolf's covetous brother was a drop of water in hot oil. Old Town guards turned, weapons up, sympathies changing. Gauntleted hands grabbed at tunics. Pikes jostled in the air. Screams. Cries of pain. Shouts of military indignation. More Castle guards flowed through the alley. Koz backed against a wall. Trying to disappear. The crowd scattered, outliers disappearing into the common flock. It didn't matter, of course. The likho had surely seen enough.

Scotta burst through the desperate melee, hissing through his teeth. Swinging his cane. Heading straight towards Koz. Koz pulled on the head of his own cane. Clumsy. Only pulling a thumb's width of his rapier free.

Scotta's pupils shrunk, cane lowering. A ghost of recognition. Koz slammed his rapier back down.

Kozilek's old mentor fell upon him. Grabbing at Koz's military cloak. Laughing. '*Hominem Mundi! Hominem Mundi!*'

Koz floundered. Scotta ripped the capotain from Koz's head, jamming the black sugarloaf hat onto his own head. Face flickering. They watched each other. Scotta's joy giving way to menace.

'*Mine.*' A rasping whisper. He leaned back. Adjusted his old hat. A Castle guard looked back at them both. Bellowed at Scotta. Scotta grinned. Winked at Koz. And then he was gone, down the alley, Castle guard in pursuit. That familiar flight.

Koz breathed haltingly. Rubbing the top of his head. The remains of the crowd continued to seethe. Guards chasing dissenters, dragging them down. Above the din, the

Astronomical Clock chimed. Smooth hands wandering a dizzying array of circles, geometric lines. The skeletal form of Death held up a bell. Sounded out the hour. Sinful figures arrayed about the horologe shook their heads in concert.

But there was a fixed point in the chaos. Below the wheeling mechanical heavens. Someone standing still. Their body a rock in the Vltava, motionless in turbulence. Head tilted up at the horologe. Koz stepped forward, slow. The familiar man looked young. Handsome. Skin a reddish cast. Wearing a pear green tunic. Rope belt.

tall figure in a graveyard. Broad shouldered. Simple tunic. Rope belt.

*Not a saviour. A monster
staring down at an empty grave*

Koz shivered with memory. Doublet heavy with clammy sweat. Closing his eyes. Willing his eyes to see the present, not the past.

He opened his eyes. Pesach. Unmoving. A pillar in a maelstrom.

Koz approached him. Angry guards and terrified dissidents flowed around. They had no eyes for either of them. Above, Death sliced time with its ringing bell. Pesach stood in the middle of what had been Scotta's audience. Perhaps watching the Astronomical Clock. Perhaps not listening to Scotta at all.

Koz looked down at Pesach's boots. He had thought they were hide, in the Maisel Synagogue. Brown, textured things. Animal skin pressed flat against the flat synagogue floor by heavy feet.

Now Pesach's feet stood on cobblestones. What had looked like hide was flowing between the stones. Soles conforming to the uneven ground below.

The Astronomical Clock's shutters were open. Sainly figures paraded within, demure faces, gilded halos. Pesach watched it all. Eyes fluttering from place to place, pearl and black and blue. Unblinking. Smoother than any human eye.

Koz stood before him. Stood before *it*. Coughed.

'Pesach.'

A long pause, in the baking sun. Koz clapped. Hissing.

'Pesach!'

Inscrutable eyes drifted down. Reading Kozilek's features.

Koz fidgeted. His ruined right hand ached. 'What do you want with Kozilek?'

Pesach the golem smiled. Broad terracotta tongue laying in wait behind pearly teeth.

How Yossele the Golem Carried Water for Passover & Caught Fish for Rosh Hashanah

This is not a story about golems.

Perel, the wife of the Maharal, was shrieking. Screaming in fear, pounding at her chest with her fists bunched in her apron. Wordless screams, but not formless. Borne from a fear of something unnatural. Something familiar made strange.

Yossele, the source of Perel's horror, paid no heed. The noises Perel was making were not language — at least, not a language that Yossele knew. He was used to being spoken to. It was words, and only words, that he understood.

So Yossele continued to fetch water, even though he could sense Perel's heart slamming in her chest, hearing every thunderous beat, as she continued to shriek at him.

But I ask you again, what is fear? Is it an instinctual reaction to something incomprehensible, beyond control?

The Maharal arrived as Yossele brought another two buckets of water into the room. The room Perel had prepared for the eve of Passover. Water covered the floor now, flooding the house, sloshing as the Maharal waded through it in his sandals. As the Maharal watched, Yossele emptied another two buckets into already overflowing barrels. Precious water from the well, gushing throughout his home.

The Maharal roared. Perel cringed, pleading with her husband. Yossele began to stride away, seeking to fill more barrels.

Reaching out, the Maharal laid a hand upon Yossele shoulder.

'Stop!'

Yossele stopped. He looked into the Maharal's eyes, buckets swinging in his hands.

'We have enough water, you fool!'

Yossele looked around. He looked at the buckets, the barrels. At the flooded floor.

He had been asked to fetch water. But he had not been told how much. And he had seen water on the floor before, such as in the Old New Synagogue — trekked inside from the rain, or sloshed across the bare stone before being scrubbed by the Maharal's personal shamesh, the old man Avrohom. Not once had someone called Avrohom a fool.

Without a tongue, Yossele had no words to say. He was silent as the Maharal took the buckets from him.

The Maharal admonished his terrified wife. 'I told you not to use him for such frivolous tasks. He is here for our protection, not for our housework.' Perel turned away.

The Maharal led Yossele to his place in the Old New Synagogue. Sat Yossele sat down in his chair. Stern, the Maharal bade Yossele to be thoughtful. To consider what he had done.

So Yossele thought. Wordless, eyes looking forward but not seeing, Yossele thought.

But what is thought?

Hmm?

Ah. I see. You don't yet understand.

Perhaps another story? Yes? I know you've heard them all before. But we have time here, don't we?

This particular story happened months later. The eve of Rosh Hashanah.

Yossele stood at the edge of the Vltava, net in hand. That broad sweep where Jewish Town meets the river's bank. There had been a shortage of fish in Prague, and the Maharal was seeking a great quantity for this celebration of the head of a new year. Unable to source any produce from the hateful burghers around him, the Maharal had finally turned to the golem. This powerful creature, this man with powers beyond that of mortal men, had little to do on this day but dredge the river.

Perhaps it would interest you to know the circumstances surrounding the introduction of carp to this region, back in the time of the Romans?

No. No, I thought not.

It had been hours. The sack that the Maharal had given Yossele to fill was plump with thrashing fish. But it wasn't full. And the request had been for a full sack of fish.

Rain pelting his open, unblinking eyes, Yossele cast the net into the water. He watched the waves, the water beneath, the bed of the Vltava. It would make this so much easier if I could describe to you what he saw, or even make you comprehend how he saw it. But as we both know, words have their limits. There is only so much I can do for you.

Swift, inhumanly swift, Yossele pulled the net back, full of carp. He deposited the confused, gasping fish into his sack. And then he readied the net for another throw.

The shamesh Avrohom approached Yossele. He was bringing word from the Maharal. Guests had arrived with a bounty of fish. Enough to feed all his guests for Rosh Hashanah.

To Avrohom's eye, Yossele ignored the old man. And that is how the Tzemach David tells the story, is it not? But what did Yossele care for guests, and the fish they bring? How is a golem to know how much fish is enough?

Yossele cast the net once more into the water. Avrohom reached out to the golem, turning him with wrinkled hands, and assured him that the Maharal wanted Yossele to return. Yossele was to follow Avrohom back.

After looking at the old shamesh, the Vltava, and then the net, Yossele acquiesced. He reeled in the net, and then he picked up the sack, carefully grabbing the bottom first. Pulling it upright, he emptied out all the fish he had caught. Letting the desperate carp tumble back into the freezing waves of the Vltava.

Avrohom spluttered in shock. And then, looking at Yossele's thoughtful, honest face, Avrohom began to laugh.

'Ha! You do not understand, do you?'

Avrohom poked at the golem as he capered about, laughing at Yossele.

'You do not understand!'

Yossele watched the old man prod him. And when Avrohom left, he followed him.

What did the golem not understand? That he had to fetch fish? He was asked to fetch fish. That he had to fill the sack? He was trying to fill the sack. That he had to abort his task and return?

He aborted his task. He was ready to return.

What is laughter? It is the undoing of tension. It is the outpouring of shock and surprise, the turn from expected to unexpected. It is the sharing of the moment.

Perhaps it would interest you to know what laughter does to the human body? The pressure it puts on the blood? The way it sends muscles into spasm?

Yossele, who drew no breath, could laugh no laugh. But did he share a moment with Avrohom that day, on the banks of the Vltava? As the shamesh pointed and laughed at him? We could ask Avrohom, were he alive today.

But could you have ever asked the golem? If these written accounts belonged to Yossele, and not to Rabbi David Gans, would you have believed what he said?

Chapter 5

White Lion. Third floor. Home.

Koz sat at the kitchen table. Front door locked. Mandilion hung beside it. Jar of balm secure in his room. Things were quiet. He *should* feel safe.

But Koz sat across from a golem. A golem who passed for human.

Pesach stared at Koz with the same blank face he'd been wearing in Old Town Square. In the Maisel Synagogue. Spread out between on the table before them lay Pesach's note. Unspooled like the mind of a dead slave.

Kozilek the Collector.

He who outwitted Edward Kelley. He who works for the Jews of Prague.

Your time has come again.

His name is Pesach. It is your task to take him into dark places.

It is his task to bring them into the light.

MA

Pesach met Kozilek's eyes. No twitches, no flickers. Perfectly still. Whatever thoughts it had were its own. Just like the likho.

Just like Yossele. Koz's right hand spasmed, a lancing pain, pins and needles. Koz smiled at the golem. Immediately felt foolish for doing so.

Chiara Roder stood behind Koz, leaning on the back of his chair. Her fingernails tapping at the wood. For a sgraffito artist, this thing before her was a masterwork. After years of retirement, resting on her laurels as a celebrated architect, Roder still slaved away at

the walls of the White Lion. Striving for perfection late into her fifties. Now perfection was staring back.

‘Ah! Amazing!’ Her wiry arms made the chair creak. She gestured at Pesach. At the note. ‘Friend. Is this note true?’

Pesach nodded at her.

‘All of it?’

Another nod. Koz cleared his throat. Needed to spit. Couldn’t, with the golem watching.

‘He looks human, like Yossele did! But look!’ Chiara snapped her fingers at Koz. ‘See how the note is signed with an **MA**? It could be Matthias.’

Koz swallowed. ‘Rudolf’s brother? He’d never share Court secrets with him. This can’t be the work of Matthias.’

‘Ah.’ She looked defeated. Then brightened. ‘What about Maisel? He and the sofrim?’

‘Maisel wouldn’t send... this. And he only signs with an **M**.’

‘But look! The **A** looks different. It might have been drawn on after. And the Maharal made the first golem, and that looked like a human. To fight the blood libel.’ Her eyelids fluttered. ‘Maharal. **MA**.’

Koz rubbed his face. Olive skin lined and worn. ‘This golem is different to Yossele. This one has a tongue.’

‘But the Maharal and Maisel, they were very close. Could this be a surprise from the Primas? Tongue and all?’

‘No. Maisel couldn’t hide this from me.’

Koz felt Roder shrug. She was Pankratius Roder one day, Chiara Roder the next. In Koz’s experience, she wasn’t one to hide anything from anyone.

She stepped forward. Roder was decades older, fifty-eight to Kozilek’s thirty-nine. Taller. More lithe, less haggard. Long black hair threaded with silver, like Kozilek’s beard. Still clinging to Italian fashion, despite not having returned to South Tyrol for many years. Only last week, Pankratius had been sporting padded hose, a blinding canary yellow, with a matching doublet fitted across his flimsy avian chest. Today, Chiara had chosen a bodice in autumnal colours, her long sleeves split.

Chiara approached the golem. 'Well, Pesach isn't a Guild model. If they could make a golem look this human, they wouldn't waste it on you. Rudolfine golems have come close to this, especially when painted. The Castle attracts many artisans. But none so good as this! No wonder he's fooled everyone. No wonder he fooled you.'

'Yes. Well.' Koz tugged at his glove. Saw the golem watching. Pulled the glove back into place. 'Maybe it's a pot-shop golem. Made to look human to get around needing a Guild mark, get around that licensing fee. No need to get it licensed if people can't tell it's a golem.'

'But what pot-shop would do this? What only the Maharal has done? What pot-shop could?' Chiara furrowed her brow. 'Surely something this exquisite takes expertise. And scrollhackers and pot-shops are like short candles. Bright and useful, if close. But they never last. And they leave such a mess.'

'You're not wrong.'

Chiara plucked at her upper lip. Leaned down. Read the note again. 'Pesach.'

The golem smiled at the mention of its name. Politeness? Excitement? Ignorance?

Chiara stroked her broad nose. '*Pesach*. It means Passover, doesn't it?'

Koz reddened. Tapping impatient hands. 'Obviously.'

'So he's of Jewish make!' Chiara knelt down. 'Prague is not the only place that tells a story of a rabbi making a golem. Before Yossele, I heard a rumour from Poland. From the town of Chełm, perhaps? Rabbi Eliyahu Ba'al Shem made a golem. He could not control it. They both died.'

'And you know all this how?'

'I go outside! I talk to people. *New* people. A debt reclaimed is not a conversation. And those books you own, they can only tell you their stories once.' She leaned her face close to Pesach. 'You said he has a Polish accent?'

Koz drummed leather-clad fingers. 'Maybe.'

'Then he was made there! Jews come to Prague from all over Poland, you know. Cracow, Lublin, Mainz.' A conspiratorial look at Koz. 'Poznań.'

'I know.'

'Where the Maharal and his family —'

'I know!' Koz's fingers a staccato rhythm. 'But he's gone.'

Koz froze. The golem was copying him. Hand out on the table. Drumming the same two fingers and thumb, dominant and dexterous. Two rightmost fingers thumping stiff against the wood.

Koz stood. Walked over to the cupboard by the hearth. Opened doors. 'Where's your pipe?'

'Hidden from you. Tobacco is expensive, and your spit leaves a vile taste on it.' Chiara was inspecting Pesach's eyes. Reaching out a bony finger. Hesitating. 'Human features. How did David Gans tell it? Yossele. The clay itself, brought them all forward?'

Koz dug around in the cupboard. Boxes of spice, herbs, withered vegetables. No pipe. No tobacco.

Chiara kneeled before Pesach. Drew his eyes close. 'These eyes are painted.' Almost whispering. 'Did Yossele have painted eyes?'

Koz leaned against the wall beside the White Lion's dormant hearth. Absently rummaging in his pouch with his naked left hand. Counting coins. A sudden sharpness, pricking his fingertip. He yelped. Drew his wounded hand out of his pouch.

Bright red blood, beading against the filthy grain of his fingertip. The pin from the Maisel Synagogue.

Koz looked to Chiara. She hadn't noticed Koz yelp. Her expert eye was appraising the golem, hair and teeth and fingernails. It watched her, and she watched it. The dark hair on Chiara's forearms standing on end.

Lost in reverie. Locking eyes with a monster.

Koz laid the pin on the mantelpiece. Watching them watch each other. Then he jabbed the dead fireplace with his cane, hard.

Chiara gasped, startled. 'Oh!' She stood up. 'Oh. Did you say something?'

'Nothing important.' Koz wiped the blood from his finger, flushing. 'Just... be careful how you look at that thing. It looks back.'

'Who, Pesach?' Chiara adjusted her bodice. 'I agree he has quite a stare.'

Koz shook his head. Pointed at Pesach. 'It's dangerous.'

Chiara blinked. 'Oh?' Crossed her arms. Rigid. No longer apologetic. '*Dangerous*, you say.' She walked to Koz. 'Why? Because he knows how to look someone in the eye?'

‘Because.’ Koz counted the hearth’s dormant coals. ‘We’ve no idea what it’s thinking.’

‘Ah.’ Chiara’s gaze burning at his periphery. ‘Making him different from who?’

Koz counted coals again. Watched Chiara step as she stepped away. Playing with her braid. Silver threads sparkling in a long black rope. She sat in Koz’s seat, picked up the note. Tapping her lower lip.

Pesach watched her, every moment. How she walked. How she sat. How she moved her hands.

Koz shuddered. Pesach’s hands were mimicking Roder’s now, as she held the note. Thick, ruddy fingers grasping at nothing.

‘Come on, Chiara. I’m just asking you to be careful.’

She wasn’t listening. ‘This note mentions Kelley. You never told me you had anything to do with him.’ Leaning back. ‘He was a swindler, wasn’t he? Lived with Thaddeus, here in Old Town. House of the Green Mound.’ A probing look. ‘Doesn’t Kelley still have a stepdaughter, in Lesser Town? Do you know her? The poet?’

Koz shook his head.

Chiara flicked the parchment. Pesach flicked the air. ‘Kelley died in prison, I thought! In ‘97. Six years before we met. He died of poisoning, yes? After a failed escape. Gone the way of the horse.’

Koz turned back to the dead hearth. Poked at rough, blackened shapes. His fingertip hurt. ‘Kelley is a long story. Let’s leave it at that.’

‘Ah!’ Chiara clicked at him with teeth and tongue. ‘Another mystery, is it? Another scar to hide?’ Chiara slammed the note down, voice rising. Rocking the table. ‘Have I not seen them all? You stay at home. All week. All month, if not for Maisel’s work. Saying nothing. *Doing* nothing. What happens on the day when there are no more debts to collect? You need my help, Kozilek. How is it, I ask you, that you expect to balm these pains yourself?’

53. 49. *The smell, so bitter. That acrid tang
dissolving flesh*

Koz breathed deep. Inhaled cold ash.

Chiara rolled up the note. She spoke, voice soft. 'I think you should take Pesach with you. Fight the blood libel together. Find out who killed that poor young boy in the Maisel Synagogue.'

'Out of the question.'

'What's the alternative? We turn him over to the Guild? The Castle? They didn't make him. Which means they'll kill him. And then they'll kill us, trying to discover things about him we don't know.'

'Golems aren't alive, Chiara.'

Koz drew his cane away from the absent fire. Turned around. Chiara, Pesach. Both staring at him from the table. Stuck between the hammer and the anvil.

Chiara's eyebrows were arched. 'Are we really going to have this conversation?' She waved at Pesach. 'With him at our table, no less?'

'Oh, please. Stop calling it *him*. It's a mockery of one! Those clothes, that body. How can you say that piling those things together makes it a man?'

'*Because I asked him.*' Chiara flew to her feet, a lit flame. Chair tipping and clattered behind her. 'The note states his gender. He said everything in the note was true. I trust *his* word that he is a man! Not his clothes, not his body. And not *you*.'

Koz withered under her gaze. He opened his mouth. Voice failing. Brittle as crumbling ash.

Chiara's eyes clouded. 'I thought you were better than that.'

Koz watched her leave. Apology stuck fast to the back of his tongue. Chiara's footsteps rocked the floorboards. She slammed her bedroom door, and a box of herbs tumbled from the hearthside cupboard. Tiny, desiccated ribbons spilled across the well-swept floor.

Koz closed his eyes.

When they felt dry enough to open, Koz saw Pesach looking down at the floor. Kneeling down to clean it.

'No.' Kozilek stopped him. Held out a shaking left hand, pointing at the mess. 'Not yours to deal with. Mine.'

Pesach wasn't staring anymore at the spilled herbs. He stared at Kozilek's hand. Koz pointed again at the floor. Pesach's eyes followed only the movement.

Koz lifted his hand. Pesach was staring at Maisel's signet ring. Painted garnet eyes fixed upon the Shield of David.

Chapter 6

Bridge Street. A crowded streak of commerce, bustling, hollering. Connecting Old Town to New Town, Bridge Street was worked by traders from both. Some came across the Vltava from Lesser Town. Sometimes the Castle district, Hradčany. Merchants and counting houses, winking swindlers. Hungry for tolar. As they said in Prague, 'No work, no pastry.' A congealed stream, cajoling and shoving. Yells verging on screams. Fighting the current for a piece of silver. The living froth on a creek of hot piss.

Kozilek hated it here. Philip Lang knew it. As good a place as any to look for the hateful ex-Jew. The unscrupulous man with the highest debt in Maisel's books.

Koz walked Bridge Street, lamenting his stolen hat. Shielding his face from eyes above with a gloved hand. Pesach bumbled behind him. Finding everything interesting. A stranger in a strange land. Koz's neck ached from glancing back to find him. Pesach pushed against people, stared at them. Reached out to touch every passing nadler-cart. Brushing thick fingertips against their clay flanks. Careless in the face of a rising blood libel.

Koz leaned on a wall, beneath an awning. Shielded from the likho. Waiting for Pesach to catch up. Late afternoon glared between the buildings, shining between architectural masks. New Town was poor — far from the Castle, and not Guild-owned like Vyšehrad. But those closest to Bridge Street renovated, mirroring Old Town. Intricate sgraffito façades. Bracketed window heads crowning exquisite drapery. Koz peered down an alleyway. Behind the mask. Faded family names, showing low in the foundations. Dates of birth, of death. New Town's cemetery closed over a century ago. Its bevy of stone had not gone wanting.

In the back of the alley, Koz spied the other kind of transaction Bridge Street was known for. In a crooked doorway, paper thieves from the Vyšehrad scrollmill haggled with scrollhackers. Young renegades pleading with ink-stained hands. Bargaining for the special scrolls that made the golem thought possible. Above them, impassive likho stared down, unseen. Koz leaned back out of sight.

Koz felt taut. He hadn't the nerve to ask Chiara to soothe him with fresh balm before they left. He stretched, testing the stiff, aching leather of his skin. Rubbed his chest. Felt the lump under his doublet. Maisel's signet ring hung around Kozilek's neck on a thin cord, hidden from Pesach's eyes. The last gift from David Gans. Light, for a noose.

Pesach stopped beneath a lanternpost. An oystercatcher alighted atop it, sleek black and white. Its eyes and beak red like a bloodied pike. Pesach watched it preen itself, probing feathers beneath an upturned wing with animal preoccupation.

Koz walked over. Struck the lanternpost. The bird flew away, trilling. Pesach turned to Koz. Koz tapped Pesach's chest. Flinched at how much that hurt.

'Stop looking at everything.'

Pesach closed his eyes. Koz suppressed a shout.

'*Open your eyes.*' Hissing. 'I thought you were clever. Isn't that the whole point? Why impersonate us if you can't think like we do?'

Pesach opened his eyes.

Koz nodded. 'Okay. You found me. Which means either the people that sent you knew about... where to find me.' Koz looked around. No eavesdroppers. 'Or, you're good at finding people. Like Yossele.'

Pesach looked up. Eyes catching another oystercatcher, wheeling overhead.

'Look.' Koz rubbed his bald patch. Stinging in the sun. 'Before Samuel the Elder dragged me out of bed this morning, I hadn't left the house in a week. How long had you been searching for me? How did you blend in?'

Pesach watched the bird pass out of sight.

'Could you find Lang for me?'

Pesach's eyes followed some unseen trajectory.

Koz grabbed Pesach's pear green tunic. '*Listen*. If you walk with me, you're helping me. You can walk in front. Let the crowd part before you, but don't push people. Understand?'

Pesach's eyes settled on his. Koz held his breath.

Pesach nodded.

Koz positioned Pesach in front. The golem felt softer. Gentle, despite his size.

Pesach walked. The crowd parted.

Koz struggled to keep up. One hand on Pesach's back. Boots and cane knocking against the backs of Pesach's feet. Like kicking the towers of Stone Bridge. From this angle, Pesach provided little cover from the sun, but some cover from the likho. Glancing around, Koz watched the billowing current flow around the golem. Vendors shouting from stalls. Discerning customers peering at humble wares. A crookbacked man with straw hair, running a vegetable stall, directed a pot-shop golem with a stubby finger. No Guild mark on the golem's chest. Sacks lifted, crates stacked. All around them, the ebb and flow of commerce streamed by. Tolars sparkled, palm to palm, glimpses of silver fish. Another cargo-filled Rudolfine nadler-cart trotted by like a passing whale. Dappled grey, a beautiful example of Arcimboldo's legacy. Two front legs clacking, two back wheels rumbling. Its ample carriage space fully loaded. Contents concealed by sacking.

Muggy, shared air swirled from mouth-to-mouth. Invading Kozilek. He breathed shallow. Aching legs juddering. Eyes down. A riverbed of worn cobblestones rolling under him. Safe from the human shore. Minutes, days, hours. Bridge Street had never felt so long or so short.

Laughter. Nearby. It broke Kozilek's fugue. He looked up. Pesach had led him into New Town, to the open square of Dead Horse Market. Across the square, to the right, stood a Guild statuary, its large yard abutting a two-story building. Nadler-carts stood behind a short fence, awaiting public use. A row of equine clay heads shook and swayed. Listless. Their chimeric carriage rumps rocking on their wheels. On the edge of the square, to Kozilek's left, stood a new ale house. *The Garnet of Night*. That barking laugh burst out again, ripping through the malted air. Koz pulled Pesach to a stop.

Philip Lang. Leaning against *The Garnet*, wooden tankard in hand. A decade older than Kozilek. A lifetime less wizened. Trimmed beard, thick and dark as tar. Aquamarine

eyes. Thin as an oystercatcher's leg, with a healthy paunch. Clad in dangerous black. Castle black. Surrounded by five other figures clad in same.

Lang spotted Kozilek's leer. Mock-saluted. 'Kozilek! The Collector of Jewish Town. So good to see you!'

Koz strode over. Eyes drawn to an old absence. No yellow circle on Lang's traitorous breast. Not for five years. Lang renounced Judaism shortly after being fired as Rudolf's valet.

'Lang. We need to talk.'

'But I haven't finished my story!' Friends tittering. 'Would *you* like to know what I found when I picked the pocket of the third Duke of Terranova? Hmm? Not even Westonia can spin the poem of this tale as eloquently as I!'

Lang's audience cheered on cue. Nachtkrapps, all of them. Including Lang. Tending to the scrolls of the likho each night. Earning an honest wage from those who spied on all of Prague.

Pesach approached. His long shadow falling over Lang.

Lang cleared his throat. 'Making friends now, Collector? That's not like you.'

Kozilek glared at Lang's flock. 'Unless any of you have debts to square with Jewish Town, I suggest you leave.'

The five other nachtkrapps downed their beers. Fled *The Garnet*. Crestfallen, Lang finished his beer. Drew himself up.

'You know my position on moneylending. Maisel was generous enough to give me a loan, and I was generous enough to repay it.'

'Without interest.'

Lang snorted. 'Exorbitant interest. A professional disagreement!'

A pot-shop golem stepped out of *The Garnet*. Shorter than Pesach. Bland terracotta features. Erratic steps. An embossed 'G' lay on its chest, but fragmented. Off-kilter. Vague indentations across its body implied clothes, but mismatched. It approached them with jerky movements. A stitchjob. The most haphazard kind of pot-shop golem, its scroll a botched amalgam of salvaged fragments. By the look of its body, it was several broken Guild golems potted together into one. Foolish, this close to the Dead Horse Market statuary. How good did a counterfeit Guild mark need to be, in the eyes of the likho?

The golem's hands clasped six fresh tankards. Its customers were gone. Midnight eyes cast about in vain. Black garnets. Custom gimmick.

Lang ignored it. 'Look. I'm not the first to find Maisel's naked profiteering offensive, and I won't be the last. Haven't you heard? Rudolf's favour towards the usurous Jews is all but spent. That pious snob Maisel may line your pockets, growing fat off the goodwill of the decent, but — '

In the time it took Koz to blink, Pesach had his hand around Lang's neck. Lifting him hard against *The Garnet*.

'Hey! Hey — '

Lang skittered his insectile legs. Pesach squeezed. Lang's eyes bulged, reddening. Lips fluttering like broken wings. Clawing at Pesach's hand. Ants trying to wrench open a mountain.

Koz jumped forward. 'Pesach!' The golem looked to Koz. Cool? Callous? Controlled? Koz slapped him. 'Pesach, damn you! He can't breathe!'

Pesach looked back at Lang. A long stare.

The golem opened his hand. Lang fell, gulping, wheezing. Flailing at his throat.

Koz struck Pesach. 'Why did you do that!' But it was no use. Like asking the rain questions about the sky.

Lang writhed into a sitting position, swearing under his breath. Crimson face matching the intensity of his scowl. He reached a feeble hand towards the ale house golem, but it was walking away. Seeking fresh instructions.

Lang made a rude sign at Koz. Croaked. 'How tough you must feel, old friend. Leaning on a third leg, and paying someone to be your arms.'

Koz's embarrassment evaporated. 'Tall words, from someone who used to pay the bambitky to do their dirty work.'

'Used to. The popularity of those Italian gunslingers dropped off when most of them christened Rudolf's gallows in Lesser Town.'

Koz appraised Lang's new uniform. 'It's a shame you didn't join them.'

'You too, old friend.' Lang smiled. 'It's a shame they never would have believed you're Italian. You could have failed to be one of the bambitky as well.'

Koz gave Pesach's bulging bicep a pat. 'I didn't fail to call him off.'

'I liked you better when you drank.' Lang massaged his neck. It had never felt a noose, even when Rudolf's court secretary had caught Lang pilfering the Kunstkammer. No noose small enough, perhaps, for the neck of a rat.

'I liked you better in Austria, Lang. Warbling for Ferdinand at Ambrass Castle. I liked you better when you weren't a light-fingered rook, abandoning your faith and dodging debts.'

'Rook? Oh please. If you saw what's in Rudolf's Kunstkammer, you'd line your pockets too.' Lang crossed his legs. Comfortable. 'Though pockets never stay lined for long, do they?'

'So you're broke.'

'As a battlefield corpse.'

'Don't lie to me, Lang. Or my friend here will wring more than money out of you.'

Lang spat. 'You can scoop up the Vltava in your hands and pan for it. My workmates will be pissing it into the river right now.'

Koz crouched before him. 'You'd sooner die than buy a round for that many people. What did you do?'

Lang tilted his head. There were bruises on his neck, and not because of Pesach's massive handprint. Mottled, purple oblongs. Lang looked proud.

Koz cocked a quizzical eyebrow. 'Were you attacked?'

'I was bitten.' A canine smile. 'In a sense. Last night I chose the company of a fine lady over a night spent climbing ladders. My fellows covered for me, but today I paid for my absence with ale.'

Koz frowned at the bruises. Mouth-sized. He tried to imagine wet lips against his own neck and shuddered. 'Are these to be considered the mark of a fine lady?'

'Of a fine tryst. Believe me, I returned the favour.' Lang rubbed the bruises. 'Don't worry, old friend. I know you. I'm not asking you to understand.'

A thankful nod. Koz tapped his boot with his cane. 'So that's where you were, all night? Not prowling the streets?'

'Why?' Not cagey. Curious. 'What's the story?'

Koz clicked his teeth at Lang's alibi. 'I worry about Prague. With you out at night.'

'Screw Prague. I'm working for the Castle again. I'm safe.'

‘Safer than those the likho spy on?’

‘Please.’ Lang scoffed. ‘Staying on the right side of the Guild is easy if you give up on owning a golem. And as for drawing the attention of the Castle, do you have any idea how often the wrong people get locked up? The Castle would do better to arrest random people on the street. Besides, there’s too many scrolls! There’s no way they’re all being read, or their observations being copied down. Even I don’t bother reading them, and I’m the only nachtkrapp who can read Golem.’

‘Why so many likho then?’

‘Ask the ghost of Tycho Brahe! They’re his legacy.’ Lang whispered. Theatrical. ‘Before the last Royal Golemsmith died, he built a big machine. Looks like a loom, apparently. It’s in a Kunstkammer antechamber, though I’m barred from entering. The other nachtkrapps say that the full likho scrolls delivered to the Castle go into it. But I know they become the same fresh scrolls we put in other likho the week following.’

‘You’re sure?’

‘Brahe was smart, but I’m smarter. The borders of the scroll stay the same. I know what to look for. The scrolls are the latest make, you know. Lot of silver. Deep weave. Far more complex than anything the sofrim put in their mezuzot.’

Kozilek worried at a cobblestone. ‘That’s a lot of effort. Putting spies on every street corner in Prague, then washing all their secrets away. Is the machine made out of clay?’ Lang shook his head. ‘Well somebody is reading them.’

The nachtkrapp shrugged. Koz poked at his boot with his cane.

‘Okay then, Lang. Tell me. Where do you and your friends usually work?’

‘All over.’

‘Old Town?’

‘Old Town especially, last night.’ Lang spread his arms. ‘Every likho, every street.’

Koz almost dropped his cane. ‘Really.’

‘Don’t get too excited. I skipped out, remember? I don’t do big jobs. I saw the work order. The size of that map! Juggling that many scrolls would have taken hours. My guess? The scrolls are being updated again. Vyšehrad is always trying to make things more efficient. And Guild orders, like the one we got last night, don’t need to be run by the Castle first. Not anymore. Rudolf has furnished the Guild with a legal representative.’

‘Who?’

‘You don’t know him. Lawyer. Lesser Town boy.’ Lang saw Koz flinch. ‘You needn’t worry. He’s not Italian. And all he does is sign things. The only approval the nachtkrapps needed was Vorel’s signature.’

‘Hah. You know the widow’s signature?’

A filthy chuckle. ‘I know more about Irenka than that.’

Koz grunted. Stood, wobbling. Rubbed gritty eyes. Steeping in the soporific lull of late afternoon. Behind him, Pesach watched the sun kiss the horizon. Enigmatic. A tightly spooled mystery.

Koz poked at one of Lang’s hollow-boned legs with his cane. ‘Custom golems. What do you know?’

Lang scrunched his face. ‘About as much as you? They’re all stragglers, now. There can’t be many pot-shops left. Doesn’t matter where you hide your illegal golem, the Guild gets you eventually. Why buy a pot-shop golem when you’ll be forced to pay out as if it was real?’

‘Ever hear of a Jewish pot-shop?’

‘Are you serious? After what Arcimboldo did, stealing the ways of the sofrim?’

‘Last year’s religious Letter of Majesty wasn’t just for Protestants. Maybe it gave the Jews some leeway we don’t know about.’

‘The Guild doesn’t accept Jews. They got all they needed from them. Besides, Jews hate nadlers.’

‘The Maharal did make the first golem.’

Lang scoffed. ‘And where is he now?’

‘David Gans was close with Tycho Brahe, wasn’t he? They’ve both been dead since 1601, but maybe Gans wrote something down. Something other than stories.’

Lang shrugged. Apathetic.

‘Okay.’ Koz stroked his beard. Hirsute chaos, compared to Lang’s tidy chin. ‘Okay. Let’s say you start a pot-shop somewhere else. Outside Prague. Find a fugitive scrollhacker, maybe. Somewhere like Poland. Could it be done?’

‘Make a golem? Outside Prague?’ Lang snorted. ‘With what clay? Rudolf owns this neck of the Vltava. The Guild dredges it up and down.’

‘Other countries have clay. How do we know it’s any different? What about Chelm, and Rabbi Eliyahu Ba’al Shem? What about his golem?’

Lang looked up at Koz with pity. ‘Not all stories are true, Koz.’ He yawned, squinting at the sun. ‘If someone made golems with other clay, especially in Poland, we’d know about it. That’s Matthias territory. Monopolising golems is the only thing Rudolf has left over his brother.’

Koz looked to Pesach. Pesach was staring at the sky. Watching clouds with golem preoccupation. Koz yanked a long hair from his beard. Looked at it. Gnarled and spiderweb white.

Lang wriggled his hips on the cobblestones, uncomfortable. He snapped his fingers at Koz. ‘What is this all about, anyway?’

Koz tossed the hair. ‘Can you get me a copy of last night’s work order?’

‘The ins and outs? Ha. What’s in it for me?’

‘I’ll put in a good word for you. With the Primas.’

‘Is that all?’

The pot-shop golem returned. Clearing away empty tankards from low tables. Pesach approached. Stepped in front of it. Extended a hand. The pot-shop golem paused, then placed an empty tankard in Pesach’s palm.

Lang smacked thirsty lips. Theatrical. Koz groaned. ‘*Fine*. How much did the round of ale cost?’

Sniggering. ‘How much is the interest I owe the fat old Jew?’

Koz blinked. Dove at Lang. Slapped him. Lang grabbed Koz’s gloved hand, wrenching it. Koz yelped. Ungloved hand grabbing a pouch on Lang’s belt. He yanked it free, stepped back.

Lang was holding Kozilek’s glove. Gripping it by the two false fingers stuffed inside. ‘You need this glove back more than I need that pouch.’ Brittle smile. Staring at the stumps on Koz’s hand where two figures used to be. ‘*I’m* not the one who feels he needs to hide.’

Koz trembled. Emptied Lang’s pouch onto the street. Some scattered coins. A cracked tobacco pipe. An uncommon, expensive vice. Koz collected it all. Lang’s handsome face soured.

Koz felt around inside the pouch. Cloth, stuffed at the bottom. A yellow circle. He pulled it out with his three-fingered hand.

Through the hole in the middle of the circle of cloth, Koz looked down at Lang. Slumped against the wall. Eyes burning.

Koz tossed Lang the yellow circle. 'One of these days, you're going to jump sides again. And it'll be a chasm that greets you.'

'Well.' Lang threw Koz his glove. 'I'll meet you at the bottom.'

'The ins and outs, Lang. Here. Midday. Tomorrow.'

'Or?'

Koz gestured to Pesach. But he didn't look threatening. Pesach and the ale house golem were clasping each other's hands. Humanlike eyes staring deep into black garnets. Without looking at Lang, Koz grabbed Pesach by the tunic. Pulled him away from the pot-shop golem. Dragged him towards the gullet of Bridge Street. The path from New Town to Old.

They marched in silence. Stalls closing, lit by the setting sun. Money boxes locked, exhausted merchants murmuring. Appraising the day's take.

They passed the crookbacked man who had been peddling vegetables from his stall. Ordering his unmarked pot-shop golem to and fro. No longer. Old Town guards hemmed him against his stall. The crookbacked man wiped his sweaty straw hair from his eyes. A hand to his back, protesting. Pleading. The golem lifted things he could not. But the Old Town guards were already leading the pot-shop golem away.

Old Town guards. Not Guild enforcers, like it should have been.

Koz walked on, scarred hand fidgeting inside his glove. He tightened the glove with a furtive tug, listening to the squeak of leather. Pulling hard on this painful second skin.

Vorel would be in her church right now. She signed the nachtkrapp work order, knew what likho didn't have scrolls in them last night. Knew to post guards outside the Maisel Synagogue this morning.

Koz looked up, alarmed. He couldn't hear Pesach.

He turned around. Pesach followed behind. Obedient. Boot-like feet malleable against the cobbles. Footsteps silent. They had been, this entire time.

For Prague, the sun began to set.

Chapter 7

Old Town Square, eastern edge. The Church of Our Lady Before Týn. A long, spiky creature with a barrel backend. Forehead topped with two upright horns. Gaping maw filled with wood, shut tight behind the Gothic arcades of the Týn School, two small buildings worn heavy like a mask. Outside Týn School, Old Town congregants queued. Waiting to be let through for the evening service. Waiting, unspoken, for Vorel to leave.

Koz led Pesach to the side entrance. No guards. Koz listened at the door. Nothing.

Pesach inspected the crowded frieze above the door. Jesus, crucified in the middle. They gazed at each other with solemn interest.

Koz looked between Pesach and the door. 'You might not want to come in.' Pesach gave his usual reply. Koz chewed his dark moustache. 'I don't like to go in. It's not my house. I'm not Protestant. Not that I'm Catholic either. I don't pray for anyone.'

Pesach gave Christ his unblinking stare.

'I'm assuming you're Jewish. But I could be wrong. If you have beliefs, you can tell me.'

Back in Old Town Square, queueing congregants were singing hymns. Hiding their impatience.

Koz sighed. 'Suit yourself.' He eased open the side door to the church. Ducked inside.

Týn was grandiose and sparse. High ceilings. Tall windows caught the sunset, filling the air with rich light. A tiled field of empty pews, a forest of pillars. Until the Protestants took over Týn, each pillar had borne a different saint. Deep within the church, florid

ornamentation bracketed the altar. An orgy of opulent shapes and colours. On the pew before it sat a congregation of one.

Irenka Vorel, burgher of Old Town. Black dress, black jewelry. Black veil hiding the widow's face. A hint of white ruff at the collar. She was Kozilek's height, but looked taller. Rounded from years of childbearing. She faced the front. Immobile. Scrutinising the tomb of Tycho Brahe. Brahe, immortalised in bronze. Resting one hand upon a sheathed sword and the other on the world.

Koz sat in the pew behind her. No acknowledgement. He coughed.

'Brahe. The last Royal Golemsmith. So this is where they entombed him.'

Vorel said nothing.

'I heard it was Brahe's suggestion that Rudolf publicly oppose his brother Matthias. Not his greatest idea.'

No reply.

'He was quite good friends with Gans, you know. Brahe shared with him his observations of the sky. Given that Brahe *wasn't* anti-Semitic, and given what golems did to your husband, I would think this a tomb you'd want to avoid.'

Vorel continued her excellent impression of Pesach.

'How did Brahe die? He popped his bladder, didn't he? Too polite to excuse himself from the table and relieve himself. Too polite to take care of his own needs.' Koz leaned forward. 'I'm struggling to imagine what you see in him.'

Vorel adjusted her veil. Koz glimpsed sallow, wrinkled cheeks. Whispers of hair escaping her tidy grey bun.

Koz sniffed. Leaned back. 'He lost his nose in a duel, I heard. Did they bury him wearing his golden prosthetic nose? Seems a waste.'

'It was his nose, and thus his to be buried in.' Vorel's voice was clipped. Formal. 'And it was electrum. Silver and gold mixed. He carried many of them.'

Koz's eyes widened. 'How well-prepared.'

'One of his false noses was eaten by dog.' A wry pause. A tilt of the head. 'Didn't the false alchemist Kelley have cropped ears? I heard a rumour you're the one who bested him. *Quite* the feat, for a man such as yourself. Kelley would have enjoyed the chance to wear electrum replacements, don't you think?'

Koz forced a laugh, his tongue thick. Tapping his hard false fingers on the pew. 'I'm curious, Vorel. I know you don't go outside. You barely go above ground. You've got your tunnel, from where you live at the House of the Two Bears, to the Old Town Hall, to here in Týn. And you've spent every evening here, in mourning, since Krocín Fountain. But here isn't where Mates Vorel is buried.'

'Astra inclinant, non determinant.' She stared at Brahe's poised effigy. Brahe stared back. 'The stars move us. But our choices remain our own.'

'And this is your choice? To mourn before Brahe's tomb? Not your husband's?' Koz drummed his fingers against her pew. 'What did your husband's stars say?'

Vorel's breathing rippled her veil. 'Mates saw fit to take a hammer to a nadler-cart. To provoke a herd of those monstrous Jewish *beasts*. Because of him, those *things* trampled — *killed* — our fellow Protestants. For that, Rudolf saw fit to bury Mates in a pauper's grave. Tell me, Kozilek. What could I possibly learn thinking about him?'

'You forget who else was there at Krocín Fountain last year.' Koz leaned forward. Vorel flinched, sniffing. 'You were all there. Protestants and Jews. Celebrating Rudolf's latest Letter of Majesty. Celebrating religious freedom for both parties. Together.'

Vorel breathed slow. 'No Jews died that day. Some were harmed, but no Jewish lives were lost. Not one. In the chaos my husband caused, only Protestants were punished. We must protect our own.'

'And on the strength of that, you campaigned after Krocín Fountain to have the Jews expelled?'

A quiver in the veil. Her eyes fixed on the effigy in bronze.

Koz leaned back. 'So you think Brahe's death teaches the better lesson.' Silence. Koz cleared his throat. Cacophonous. 'People aren't borrowing from Maisel anymore. Usury is the only trade Rudolf allows the Jews outside their own town.'

'And you consider me responsible?'

'For a lot of things.'

'I won't be blamed for encouraging prudence.'

'Will you be blamed for killing a child?'

‘What do *you* know of blame?’ Vorel’s head spun like a flicked coin. Almond eyes lanced Kozilek through her black lace. ‘You, who plays at service, but never servitude. Never *piety*. Where is the money to collect in *that*?’

Vorel turned back to the pulpit. Sunlight was bleeding out of the room. Robed figures floated on the periphery, lighting candles.

Kozilek’s heartbeat slowed. Stampede becoming a canter. ‘This isn’t why I came to talk to you.’

‘Oh?’

‘I have questions.’

‘So do I. The guards you assaulted. One still can’t swallow solid food.’

Nedbálek and Doležal, outside the Maisel Synagogue. Nedbálek had been left gasping for air. ‘Tell him to rub my tolar on it.’

‘They both want to castrate you. At the base of the Astrological Clock, I believe was their request. But I convinced them to leave you be.’ Tilting her head. ‘Why did I do that, I wonder?’

Koz gripped his cane. Rapped it against the floor. In the sacred hush, the rattle of the rapier within was musical.

‘Is that the sound of *your* faith?’ Vorel’s cheeks creased. A concealed smile? ‘Your trust that others will believe your continued capacity for violence?’

Koz played with his cane. ‘The nachtkrapps were all over Old Town last night.’

‘Guild business.’

‘Which you approved. Perhaps even suggested. And there are likho near the Maisel Synagogue.’

‘Are there?’ Vorel sniffed. Demure handkerchief moving beneath the veil. ‘I signed this particular Guild order for maintenance and repair. Not for conspiracy.’

‘Really? Your thugs were at the Maisel Synagogue very early this morning.’

‘Not as early as you.’

‘I’m curious. Why send people to guard an unknown crime, unless you already knew about it?’

Vorel cocked her head. ‘You’re so good at asking self-evident questions, Collector. Haranguing people with that word. “*Why* haven’t you paid back the Primas?” “*Why* haven’t

you paid back his interest?" It's all so... obvious. And perhaps it has served you well. But not now. Not anymore.'

'Why?' Koz craned. Couldn't see the skin of Vorel's neck, beneath the white ruff. Couldn't see any bruises.

'I can see why yours is the mind that bested Kelley.' Vorel flicked the air. Gloves a velvet shadow. 'Why is obvious. Nobody does anything new.'

'Know what? I believe you.' Koz kicked her pew. 'It was Mates who led the charge against Jewish Town when Matthias was here two years ago. Just because he thought he could get away with it.'

'Why not ask him about it yourself?' Those creased cheeks. That prim voice. 'I imagine that someone of your standing is already well acquainted to the company of a pauper's grave.'

53. 49.

Broad shouldered. Not a saviour. A monster

Staring down

Eyes clenched. Koz felt a tremble in his tongue. 'This is the same. The same it's always been. Storming Jewish Town. The petition after Krocín Fountain. The blood libel. Old Town wants them dead. Wants them *gone*. Tell me what happened last night *isn't your doing!*'

Týn ate the echo. Spat out silence. Silence, and creeping night.

Vorel stood, sudden. Turned to face Kozilek. 'What does it matter?' Her black dress clung to her like folded wings. The rising aurora of candlelight thickening her veil. 'Before the rule of Rudolf's father, Maximilian, the Jews were always being expelled from Bohemia. But it was as the passing of seasons. They always came back. And then Maximilian developed a fondness for them. A hereditary delusion. But Rudolf's fondness must have limits. Fussing over golems, jumping at rumours of Matthias. What does it matter who started the blood libel, if Rudolf is too far gone to protect the Jews from it?'

Koz rose from his pew. Touched his doublet. Felt the heavy lump underneath. 'He can't expel them based on a lie.'

Vorel was a sliver of night amidst the growing glow. Attendants lighting candles to fight the gloom. 'Can't he? Will you be the one to tell the Holy Roman Emperor what he can't do?'

'A child, Vorel!' He struck his cane against his boot. 'Someone's *son*.'

She adjusted her veil. She really was smiling.

'Whose child?'

Muted hymns hummed in the air. Vorel clasped her hands. Koz could smell ash, hot wax.

Behind them, doors opened. Footsteps. Three people. The scrape of wooden pike shafts against the stone floor.

Koz turned. Nedbálek and Doležal approaching. Bringing an official before Vorel. The man wore a black sleeved tunic beneath a woollen green robe. Both barely worn. Rusty hair, messy. Darting azure eyes. Nervous. New. A hint of a thick gilded chain around his neck. Glimpse of a signet ring on a wan left hand. A waft of rich tobacco.

Nedbálek glared at Koz, his neck a furious red welt. Doležal shook his damp brown locks and pretended Koz didn't exist. 'Madame. Your appointment is here. From Golden Lane.'

Vorel stared at Koz. Koz smiled at the newcomer, who extended a tentative hand. 'Johannes Leo. Um.' He went to say more, but Vorel raised a silencing finger.

Leo adjusted his robe, the gilded chain around his neck shifting. Koz caught a glimpse of a golden pendant. A ram strung up by the belly. Glinting, newly minted. A Knight of the Golden Fleece. An exclusive Catholic chivalric order. A pampered club of noble self-congratulation.

Koz took Leo's hand. Shook it vigorously 'Leo! Worked for the Castle long?'

Leo opened his mouth. Looked at Vorel. Closed his mouth.

Vorel made an impatient noise. 'Kozilek. If you don't mind.' Nothing visible beneath her veil.

'Of course. I won't be a moment.' Koz pulled out Lang's pipe. Smiled at Leo. 'Friend. Can I trouble you for some tobacco?'

Leo faltered. Forced a nervous smile. Produced a pouch. Fetched a pinch of fragrant leaves. Koz took the tobacco, quickly taking Leo's hands in his. He slipped his ungloved

hand under Leo's left hand. Fingertips brushing against the signet ring. An embossed shield with overlapping gold keys.

Koz grinned. 'How's the weather down at Vyšehrad?'

Leo's smile was frozen. 'Um. Perhaps... about the same as it is here?'

Koz nodded. 'Of course. It can be hard to know. I don't look up at the sky anymore.' Squeezed the bony hands. 'Too many eyes in the way.' Leo flushed. Koz released his hands. 'I wonder, Leo. Are you here to talk to Vorel about the work order she signed for the likho last night?'

Leo's cheeks flared red. 'That's Guild business.'

'Is it?' Koz packed the pinch of tobacco from Leo into Lang's pipe. Slow and careful. 'On my way here, I saw Vorel's Old Town guards on Bridge Street, confiscating a pot-shop golem. Isn't that Guild business?'

Leo swallowed his words, floundering. A pale, ruffled bird.

Vorel tutted. 'Enough, Kozilek. Or shall I have my guards escort you to the Astronomical Clock?'

'I know the way.' Koz turned away, giving Nedbálek a wink. Nedbálek's neck bulged, purple and blotched. Beside him, Doležal impaled Koz with his eyes as Koz walked by. Fingers wound tight around his pike.

Vorel's voice rang out after Kozilek. 'Whose child, Kozilek?' Clear as a struck bell.

As Koz strolled away, he looked back at Vorel. That black, faceless shape. A rounded shadow in candlelight. Two guards fuming beside her. As Koz reached the side door, Leo leaned close to Vorel. Whispering into the burgher's ear. Face strained and urgent. Koz slammed the church door on the way out.

The alley had darkened. Pesach hadn't moved a single cubit. From Old Town Square, pious hymns ran out in earnest. Impatient.

Koz tapped Pesach. 'Did you see them come in? The guards, the Guild man.'

Pesach met his gaze. Silent in the gentle twilight.

They walked back to Old Town Square. The crowd had thinned, daytime business giving way to evening fancy. Lantern-bearer golems ambled across the square like fireflies. Beside Krocín Fountain, roughshod labour golems carried stacks of wooden planks.

Corralled by Castle guards. One Castle guard, a grey beetle in the lanternlight, directed the golems with one gauntleted hand, sketched construction orders in the other.

Koz put the dusky red mass of Krocín Fountain between him and the Castle guards. He stamped tired feet. Waved over a nearby lantern-bearer golem. Pesach, amicable, shook the golem's bulging terracotta hand. Koz seized the lantern swinging from its other fist. Cracked the lantern open. Lit Lang's pipe. Quick, difficult puffs. Struggling to keep the ambers alight. The tobacco smelled so savoury.

The lantern-bearer golem strolled away. Koz leaned against Krocín Fountain's elevated basin. Tucked against the nobbled flank of a carved figure.

'A Guild man, meeting Vorel in Týn. Johannes Leo. He's the Lesser Town boy that Lang mentioned. The Castle's legal representative. I'd bet my cane.'

Pesach's bas-relief face was watching the sky.

Koz sighed. Drawing a deep lungful from Lang's pipe.

His eyes bulged. Pipe flying from his mouth. Koz fell forward, hacking. Spitting, cursing. Ejecting something from his mouth. A tight roll of paper, stained with old tobacco. Wet from Kozilek's windpipe.

Pesach knelt. Picked it up. Unfurled the note with steady fingers.

Gasping, Koz rubbed tears from his eyes. He peered at the note in the low light. All in Polish. But two words of Latin, proud on the page: *Hominem Mundi*.

The note was signed with a florid **M**.



Remember also how the *Gods* began,
And by Discent who was to each the Syre,
Then learnt their Lives and Kingdomes if you can,
Their Manners eke, with all their whole Attire;
Which if thou doe, and know to what effect
The learned *sophets* will thee not reject.

Untitled poem by Edward Kelley, 1589

‘The words of sages are like tent pegs, and he laid siege to the city for generations.
The pious and the humble answer and say: “In perfect awe and purity, zeal and
vigilance no man is his equal.” One should praise him in silence, for there is no one
who can tell all his great and just deeds. He was a faithful shepherd to the scattered
lambs ... in our lands and in the city of Prague, the mother of cities.’

*Excerpt from the inscription on the tombstone of Maharal and his wife Perel, erected
since their disappearance in 1596*

A provident mind can usually escape more safely things to be shunned if it has
learned to fear them.

‘Prudence’ by Elizabeth Jane Weston [II.55]

The Maharal's First Miracle with the Golem

This is not a story about golems.

But it is a story about justice.

The Maharal, in his holy wisdom, knew that for Yossele to be effective, he had to blend in. He clad Yossele as a porter — the lowest unskilled labour, always present, never truly seen. He was free to roam. Free to detain anyone carrying suspicious bundles into Jewish Town. But no yellow circle for Yossele.

In Rabbi David Gans' tale, it is said that Yossele wore a deerskin amulet that made the golem invisible. How would that function, I wonder? Would it harness light somehow, striking it aside? Or is the skin itself the clue — not invisibility, but camouflage? The power to blend in? Regardless. Golems make no mention of Yossele wearing an amulet, deerskin or otherwise.

Did you know that golems tell each other stories? Just like humans, they share. Not to remember, but to know. To learn. Like humans, they need experiences to shape how they think. To teach them how to make decisions.

Yossele provided so many stories.

Let me give you one such example.

It was night. While Yossele was heavier than a man his size, his footsteps were silent on the cobbled road. There was no sound as Yossele approached the butcher's cart. The slaughterhouse was across Stone Bridge, and the butcher had to travel close to Jewish Town to make his Old Town deliveries. Deliveries he didn't usually make in the dead of night.

By the time the butcher turned to see Yossele approach, it was too late. The golem was already upon him.

The butcher, cheeks pink in the cold, stammered at the golem. No recognisable words. The shocked syllables of a newborn child.

There was a single pig carcass in the back of the cart. Yossele approached it. Only one carcass.

It was said that Yossele had senses beyond that of mortals. Gans certainly said so in his telling of this tale. According to Gans, one of these senses was the ability to see spirits. The same way that cats and dogs, peering into worlds unseen, have been known to spy ghosts, in their own homes, on the street.

Perhaps it would interest you to know what dogs and cats might actually be looking at? No. No, I thought not.

The butcher jumped down from his cart, patting his horse to calm it. He stammered again at Yossele, placing a hand on the golem's shoulder.

Yossele seized the butcher, a thumb and forefinger clapped around the man's meaty wrist. With his other hand, Yossele stroked the flank of the pig. Slow, steady fingers feeling the ridges and bumps of the deceased animal.

The butcher struggled, but Yossele's arm, Yossele's fingers, were frozen in place like a statue. The butcher began to beat at Yossele, trying to push him off balance. So Yossele squeezed his fingers. Until the sound of wrist bones crunching was drowned out by the butcher's screams.

The golem parted the flesh of the pig, opening the seam that ran from jowl to groin. Ignoring the butcher's protestations, Yossele reached inside and pulled out what was hidden within.

The first thing to emerge was the Jewish prayer shawl. The second was a small, frail body, wrapped tight. Pale, lifeless skin. A slashed throat.

The butcher squirmed, trying to escape the golem's grasp. Yossele turned to face the butcher. He pulled free the rope that was wrapped around his torso like a belt. It was time to protect the Jews of Prague.

The butcher cried out, and so Yossele struck him in the mouth. The butcher tried to kick, so Yossele stamped on his feet, breaking them. The butcher, delirious with pain, began to sag, so Yossele held him up, just long enough to tie him to the side of his own cart. The butcher's mashed feet hung just above the ground.

Yossele mounted the cart and urged the horse forward. Driving his prize to the Old Town Hall. The weight of the golem made the cart buckle, the butcher slipping in his ropes, until the remains of his feet scraped against the cobblestones.

Perhaps it would interest you to know how much pain the human mind can withstand before passing out?

However unlikely, the butcher remained conscious, and his screams rattled the windows throughout the twisting streets, ringing across Old Town Square ahead like a great bell. Guards came running, torches lit, shocked and confused. Once Yossele saw them, he leapt down, letting the cart roll onwards. It stopped only when one of the guards grabbed the horse and coaxed it into submission. Even then, it remained skittish. The butcher's thick screams had crumbled into moans.

On silent footfalls, Yossele retreated into the night. The guards interrogated the butcher. He admitted his crime. He explained how he intended to create a blood libel against Mordecai Maisel, to whom the butcher owed a sizeable amount of money. He had dug up the body of a young boy who had only recently died, and was intending to toss the corpse into Maisel's storeroom.

The butcher wept as he described his attacker. A simple porter, but one with a strength and speed beyond that of mortals.

Yossele's name was not yet known. But name or no, this was the beginning.

This would be the first inkling to the evil mastermind Thaddeus that the Maharal had mustered unto himself a powerful ally.

Chapter 8

Pankratius Roder patted Koz's head as they climbed together into the nadler-cart. 'You look sickly this morning.'

Koz swatted him away. Settled on the wooden bench in the back of the cheap-nadler cart, beside Pesach. Pankratius sat last. Koz in the middle of the trio, squirming on the hard bench. The nadler-cart was an old Guild model. The front half had pre-equine features, yet it was painted piebald. A malformed sausage of clay. Cyclopean garnet eye. Listless, protuberant head. Clearly not one of Arcimboldo's. Astonishing that such a thing could still be in service. It had been the first one they could flag from the White Lion, and Pesach had been so eager to touch it.

Koz leaned forward. Popped tolars in the nadler-cart's slot. 'Take us to the Castle.' The child had been dead a day. People would soon be talking about him, if they weren't already. People loved to share what they knew, or what they thought they knew. Especially in the Castle, at Vladislav Hall.

The nadler-cart rocked on its back wheels, uneasy. Then it lurched into motion. Ponderously trotting the rim of Old Town Square, its stumpy forelegs dragging its passengers across the cobblestones. Headed west, for Stone Bridge. To cross the Vltava and climb the hill.

Pankratius was in fine form. Pearl white doublet. Burgundy satin cloak. Long, swarthy hair flowing free. His fingers were like an open jewelry box. Floral perfume, protecting them both from Kozilek. Failing. Koz pinched his nose. The scent of fresh bear grease, myrrh, thyme was cloying. His blotchy, zigzag skin felt waxy with it, thick beneath his doublet. At least he felt limber again.

Koz looked back across Old Town Square. Hand up to shield his eyes from the rising sun. People gathered thick around a new structure. The labour golems had finished building it, in the night. An execution stage, three chopping blocks wide. Right beside Krocín Fountain.

Koz sank in the cart. Shielding his face from above with both hands.

He looked to Roder. Roder's glittering eyes were fixed ahead. Old Town rolled away beneath them.

The Vltava lay ahead. As they passed under the Old Town Bridge Tower arch, Pankratius broke the silence with a laugh. He reached over and patted Pesach. 'Our friend looks fine, does he not?'

Like Koz, Pesach was wearing yesterday's clothes. Everything he owned. Before Koz could answer, Pankratius crooned at him. 'Even without breakfast. Imagine! Not wanting to experience the taste of food!'

Koz chewed his envy, saying nothing. He had forced his breakfast down. Mushy bread, like a half-rotted corpse. Milk the colour of pus. Silt in the water, grains between teeth. He wanted to lean off Stone Bridge and paint the Vltava.

Stone Bridge was packed. No likho along here, at least. Eager customers flocked around merchants. Pecking at wares. Pungent fish, invasive spices. Wafting in the dank Vltava air. The occasional slender missive golem threaded through the crowd. Nimble and eager. Pesach's thigh pressed against Kozilek, the colossal brute shifting as the nadler-cart wove between pedestrians. The huge cuckoo took up half the bench. Reaching out to touch every nadler-cart they passed.

Pankratius reached over Koz and picked at Pesach's lush head of hair with calloused fingers. 'Nothing of interest last night, dear Koz? In your reading?'

Koz shook his head. It had taken him all night to find nothing. Golems remained a mystery to him. Bruno's book, *De magia*, had more than ten categories of magic alone. Ficinio's *De triplici vita*, Agrippa's *De occulta philosophia*, even the *Opus paramirum* by Paracelsus. All creased, incantations underlined. Scams. Scotta's old notes. None of Kozilek's own.

A lurch. Their nadler-cart manoeuvred haltingly around another elegant, more equine model. Rudolfine. Cremello coat. Heavy with covered cargo. Their awkward piebald nadler-cart wobbled in place, uncertain.

Beside them, a fishmonger at his stall winked at his customers. 'It's happening again!' Drawing them close for a conspiratorial whisper. 'The Castle can't protect them anymore. When the burghers hear what happened...'

Koz sneered. Licked his lips. Rearing to spit. Their nadler-cart staggered forward and his target disappeared.

'And Lang and Vorel? They had nothing to say about the blood libel? The dead boy?' Pankratius was looking back east, architect's eyes roaming a stately riverside property. A titanic sgraffito frieze overlooking the river. Rudolf, courageous atop a nadler-cart chariot. Charging into the cowardly Ottomans. A resplendent fiction.

Koz frowned. 'What makes you think Lang and Vorel didn't say anything?'

'Ah.' Pankratius shrugged. 'I just wondered. You didn't tell me what transpired yesterday.'

Koz nibbled his frayed moustache.

Pankratius peered south, upriver. 'Of course, you *like* to talk about mysterious things.'

'No I don't.'

'Ah!' Pankratius sighed. 'There's no fooling you.'

They watched as boats slunk upstream, towards Vyšehrad. Paddling the morning shift to the dredging houses. Looming wooden shacks, squatting over tiny islands. Each shack cracked, disintegrating. Neglect and disrepair. Within, grimy human hands wielded long-handled scoops. Digging for Vltava clay. Trawling for riches. Ferrying it to the Vyšehrad docks.

Pankratius clicked his tongue. 'They say that by the time the river flows past Jewish Town, past the Hunger Gate and out of Prague, it is so murky you can walk on it.' Voice wilting. 'Imagine the *secrets* it might hold.'

'Hm.'

The nadler-cart idled again. A knot of pedestrians untangling around it. Koz glanced northwest. Hunched on its hill, connecting to the western ring of the Hunger Wall, sat the

Castle. A broad crown of cold stone. The eastern gate and the prison tower of Daliborka glaring down at where Jewish Town nestled into the Vltava. The windows of Vladislav Hall, their destination, glittering in the morning light.

Pankratius played with his ruff. Adjusted his rings. Let out a long sigh. Retired architect Pankratius Roder hadn't made an appearance at the Castle in many years.

Koz relented. 'Fine. You win. As payment for getting us into Vladislav Hall today. What do you want to know?'

Roder's face blossomed. 'Yes!' He fell into a bright, sudden whisper. 'Lang. Vorel. Tell me! What did they say? Are they innocent?'

'Innocence isn't in their nature.'

'So you think one of them did it! Or both?'

Around the nadler-cart, the people of Prague bustled by. Tight like a prayer shawl. Faces hiding faces hiding faces.

'No.' Koz pulled out a hand's width of rapier. Sharpened last night. 'I don't know yet. Lang is self-serving, but even he has limits. And Vorel... well. I don't know what she's capable of. But she's too open, too excited by the blood libel's consequences. A happy scavenger. Not a predator.'

'So they *are* innocent?'

'Not yet.'

The nadler-cart stopped, the bridge blocked. Three porters, unloading boxes. Ignoring the impatient throng. Muttering gossip in hushed tones.

Pankratius worried at his lip. 'But who else hates the Jews enough to do such a thing?'

Koz went to speak. Stopped. A soft voice, beside him in the nadler cart.

Koz turned. Pesach was speaking. His Polish accent gone.

'I heard they caught the wrong woman.'

Koz dropped his cane. 'What?'

'It happens.' Pesach's gentle lilt shifted in tone. Mimicking. Eyes on the porters ahead. 'The Castle is only as good as the likho. Thanks to the likho, two women on my street were taken away this morning. They looked just like her.'

Koz picked up his cane. Looked to Pankratius. 'He can hear them.'

'Incredible!' Pankratius clapped, delighted. Leaning in.

Pesach went on. 'Two out of the three bound for that Old Town chopping block, then.' His voice gentle, yet unyielding. Resigned.

Pankratius frowned. 'Koz? Who are they talking about?'

Koz went cold as Vltava water. 'The woman.' Pesach, vacant. Unmoved. No more overheard words to say. 'There was a woman at Scotta's rally. Hominem Mundi.'

'The people of the world? I thought I heard that horrid man Scotta from our windows.'

'It was more than that.' Koz watched the porters move the last box. 'There was a woman. She wasn't calling for an end to golems, wasn't complaining about Jewish Town. She didn't parrot Scotta. She started chanting for Matthias.'

Roder's eyelids twitched. 'Ah.'

'Castle guards came for her. The likho certainly saw her. And now there's an execution stage in Old Town Square.'

The porters stepped aside. The nadler-cart teetered forward. Lesser Town lay ahead, beyond the sgraffito plaster of its Bridge Tower. Hugging the river's western bank.

Koz studied Pankratius. He was busy looking away. Cheeks red.

The people of the world.

Koz reached for his pouch. Fumbled in it for the note from Lang's pipe. With a small tearing sound, he produced the piece of paper. Handed it to Pankratius.

'How's your Polish?'

Pankratius looked confused. Shook his head.

Koz handed the note to Pesach. 'Remember Pesach's Polish accent?'

Pesach, obedient, translated the note. Just like he had done for Koz last night, beside Krocín Fountain in Old Town Square. Terracotta tongue dancing behind rows of white.

Dark water ripples from where you drop your stones into Prague's heart. Word of Hominem Mundi has reached the farthest borders of Bohemia. You have sown dissent well.

**Speak of the people of the world at the Lesser Town docks tomorrow night.
A boat will take you to Ústí.**

It is time for us to meet.

Pankratius frowned. 'Ústí... that's upriver, north, a day or two.' Looked up. 'Hominem Mundi. This must be from Scotta then, surely. Where did you get this?'

'Hidden in the tobacco pipe I stole from Lang. I almost choked on it.'

'I see. Is this note Lang's alibi for the blood libel?'

'No.' Koz looked upriver at the Lesser Town docks. Less people queueing for Vyšehrad work. Lesser Town's artisan hands were precious. Few wasted them dredging clay.

Pankratius took the note from Pesach. 'Ah! Look. The bottom corner is torn. Was there a signature there? Was it Scotta?'

Koz, who had only just torn the note himself, shrugged. 'Know who I think it might be from?'

'Who?'

Koz watched Pankratius' eyes. 'Matthias.'

Pankratius went still.

They rolled under the arch of the Lesser Town Bridge Tower. Nadler-cart tromping, slow and steady. Koz couldn't see his friend's eyes in the shadows.

Koz hissed. '*Pankratius*. Tell me this isn't true! You *can't* be a Matthias sympathiser!'

'Oh?'

'Last time he was in Prague, the mob almost burned Jewish Town to the ground!'

Pankratius shook his head, once. Quick and singular. 'That was Mates Vorel. Matthias had nothing to do with it.'

'So? Matthias is dangerous! We shouldn't even be saying his name!'

'And what shall we say then, about his brother?' An acidic tongue. 'Frittering away the wealth of an empire on trinkets? While its people starve?' An umbral stare. Then, Pankratius crossed his arms. Feigning apathy. 'Ah, but it means *nothing*. A castle is a castle to you, is it not?'

Pankratius looked away. So did Koz.

Light. Lesser Town's opulence enveloped them. Likho everywhere. The avocado façade of Moor's House. House of the Black Eagle, sheer white. House of the Three Hearts, soft lavender. All lacking the ingrained filth of other towns. Any Castle servants and functionaries that didn't live in the Castle district of Hradčany lived here, amongst Prague's

Italian population. Architects, stonemasons. Everywhere, boisterous voices greeted the morning. Prosperity and opportunity crammed the newly rich together like thrashing fish in a sack.

Enthusiastic Italian banter overwhelmed the air. Pankratius tittered, theatrically cruel, as Koz slouched low in the cart. 'Kozilek! So afraid of your heritage! When were you last in Lesser Town?'

Koz glowered. Hiding his face from more than the likho. His accent was plausible — he *had* learned it in Italy. But it drew stares in Lesser Town. Pankratius let it pass. Usually.

Koz whispered, leering. 'When were *you*?'

'Ah! You see, *Kozilek*, I am always welcome here!' Pankratius' playful voice boomed, and Koz wriggled further down on the bench. 'Come to Lesser Town! We *welcome* your presence, the great Pankratius Roder. Welcome!' Pankratius clapped. 'Ha! *Welcome*. A jealous, empty thing. These young architects, they would argue with me about my own reputation. Me!'

Koz writhed as Pesach twisted in his seat. Golem eyes bobbing on the flow of architecture. Tracing ornamental swirls. His hip shoved Koz hard against Pankratius. Koz yelped, sitting up. Pankratius laughed.

Koz ignored it. Conceding to a sitting position. 'What if people haggle with you in Vladislav Hall? Are you sure you'll keep your tongue?'

The nadler-cart tilted, beginning the slow uphill march to the Castle. Pankratius waved a glittering hand. Dismissive. 'This is just one day. One visit, for my closest friend. Ah! Without me to get you into Vladislav Hall, where would you be? Where would you be without my hospitality?'

Koz fumed all the way up the hill. When they reached the Castle's eastern gate, Pankratius paid their piebald nadler-cart a second time. Asked it to wait for them outside. Pesach patted its elongated head as they disembarked.

Atop the Castle walls, red uniforms flashed. The Red Artillerymen. The pride of Prague Castle. Arquebuses at rest. In front of the gate, plain Castle guards, rough and grey as granite. One of them had been at Old Town Square. Portly. Roasted beef face. Matted straw goatee. Koz had watched him drag a screaming youth around by a fistful of hair.

‘Greetings!’ Pankratius danced towards the guards. ‘It is I! Tell your masters. Tell all of Vladislav Hall! Pankratius Roder... has returned!’

Chapter 9

Inside Prague Castle. St. Vitus Cathedral's piercing spikes jutted out from its stone heart, bristling with tiny pinnacles. Hemmed with finials beyond counting. Later today, people would be flocking through Castle courtyards, towards the Cathedral. Or to the northern wall, to the vice and libations of Golden Lane. This morning, the crowd's destination was a building set in the southern wall, on the fringes of the Royal Palace. Vladislav Hall.

Koz, Pankratius and Pesach ascended the Riding Stairs. Koz leaning on Pankratius for support. Blustering crowd already audible. Top of the stairs, two more guards. Bending like spruce branches before Roder's breezy charm.

Vladislav Hall. The grandest room in Prague. Vaulted ceilings, curved and crisscrossed. Like colossal flowers in bloom. Honeycombed windows shed genteel light, overlooking all of Prague. The Hall was packed as it had once been, for coronations, tournaments, festivals. But now, tidy stalls lined the walls. Curios piled high, wares hanging from ropes. Every conceivable eccentricity on display. Not foodstuffs, but powders. Not wildlife, but extracts. This wasn't Stone Bridge or Bridge Street. People came to Vladislav Hall to trade in the fantastic.

Golems, everywhere. Bulky servants carrying armfuls of barrels and boxes. Lanky missive golems delivering brass tubes. Dignitaries led by clay-faced diplomatic escorts. All Guild models. Human by suggestion. Worlds apart, exquisite Rudolfine golems edged the room. Angelic, picturesque. Human by veneration. Rudolf was childless, and his brother Matthias had seized Rudolf's right to succession. But here, guarding important doors, these were Rudolf's children. Painted cherubic faces. Glittering garnet eyes. Dainty ears to pour orders into. Unarmed, but impossible to shove aside. Koz watched one move at a whispered

command. Graceful. Sublime. Letting burghers and administrators stream through a door to meet in the Diet Hall.

Koz moved his friends to the centre of the room. Pesach turned in place, gentle fingers nudging everyone who passed, human or golem. Itemising the world.

On the west wall, an ominous face surveyed all. Giuseppe Arcimboldo's portrait of the Holy Roman Emperor. Along with being the first Royal Golemsmith, as well as an engineer, inventor, cryptographer and musician, Arcimboldo had been a court portraitist. Known best for depicting faces as amalgamations of objects. Overlooking Vladislav Hall was *Vertumnus* — Rudolf, as the Roman god of plants. Cabbage shoulders. Pumpkin chest. Root vegetable neck, crisp apple cheeks. Hair a corona of corn and grapes and aurulent grains. Plump cherries for the fat Habsburg lips. The bounty of the earth stacked into a regal bust. Colourful. Contrived. Lifeless.

Pankratius huffed. 'They used to *announce* people. Nobody knows I'm here.'

'So tell them. You'll find someone who knows you.' Koz unhooked himself from Roder's arm. 'Maybe you'll meet someone new. Someone who shares your political sympathies.'

'What if I can't?' Pankratius bit a ringed finger, looking about. Oblivious to Kozilek's barb. 'I can't just ambush people. I should have been announced.'

Koz appraised Pankratius' attire. 'You came all this way, and you can't go up to people?'

'Oh yes? This, from a man who would rather spend his waking hours curled up in the dark, staring at the walls?'

Pankratius looked back. Caught Kozilek's expression. Closed his mouth. Bumbled away without saying more. An agitated bee seeking new pollen.

Pesach went to follow. Koz grabbed the golem's green tunic with a growl, anchoring him.

'No. You stay with me. We're here for a reason.' Koz leaned on his cane. Adjusted his crimson cloak. 'Keep an eye out. Don't let anyone disturb me.' Getting comfortable on his feet.

Pesach looked down at Koz. Curious? Dumbfounded? Bored?

Koz closed his eyes. 'We're diving for pearls.' Breathed deep. Like Scotta had once taught him.

He sunk beneath the sea of voices.

Incoherent, at first. Dissonant cries. Shrill proclamations, baritone rumbles. Koz waited. Letting time sink him deeper. Breathing out. Slowly... slowly. Moment, by moment. Separating freshwater pearls from their shells.

Trade talk: the cost of grain. Vegetables. Wool. Beer. *That 'fair' limit Rudolf set on the price of goods? For 'common' folk? Ain't fair to us merchants.* Complaints: Rural serfs, fleeing servitude, flooding Prague. The rising cost of nadler-carts. *Vyšehrad should be shut down! The Rudolfine Court still makes the finest golems, even without a Royal Golemsmith. We don't need a Guild!* Banter: Barvitijs spends his evenings in the Astronomical Tower, a lowly court secretary and herbalist, slaving over Brahe's observations of the night sky. A book, *Parthenica* — the collected poems of Westonia. *That line where she speaks out against the Jews? About their doubledealing ways? How brave of her! May change come to Prague at last!* Kozilek winced. Waded deeper. Waiting.

One by one, the rumours emerged. Opalescent in the muddy water. *Matthias...* A murky undercurrent of fear. A name he didn't need. *Matthias...* Too many shells held the same tainted pearl. The same dark treasure. *Matthias...* Koz shook them away. Diving for more tantalising fare.

Anger: *He thinks he defends the honour of the Golden Fleece. But mark my words, after sunset on Sunday, d'Aragon will cut that lawyer to ribbons...* An impending duel, sparked this morning. (*Matthias* — no. Koz swam away.) Frustration: *Haven't you heard? They run the place! I can't go back to the Church of the Holy Saviour, not now...* Some problem with the Klementinum, maybe the Jesuit college. (*Matthias. He's* — no.) Awe: *They can't have disappeared. They moved west against the Protestant threat, surely...* Archduke Leopold. Marched out of Passau some time ago with ten thousand mercenaries. (*Matthias. He's coming.*)

No. Too many voices. (*Matthias.*) Jagged shells, a river of cold pearls. Filling Kozilek's lungs. (*Matthias is coming.*) Choking. The world tilted, spun. (*Matthias. Matthias. He's here*)

*hand out to break the fall,
the splash, searing.
The animal scream*

Broad hand on his back. Steadying him.

Koz opened his eyes. A cloud had masked the sun, filling Vladislav Hall with cushioned shadow. People glanced at Koz, troubled. Walked away. Koz wiped away sweat. Trembling. Pulled his cloak up tight.

Looked up at Pesach, still holding him up. That implacable face.

Garnet eyes. Golem ears.

Koz snapped his fingers. 'You. You're like the original, aren't you? He could find anyone. You found me. You can hear everything being said in this room, can't you.'

Pesach looked down. Agreeing? Admonishing? Understanding?

'Quick. I want you to listen out for anything to do with the blood libel. Or the Maisel Synagogue. The Old Town likho. Anything about a missing child. You know the one. The boy.'

Pesach, unmoved. Featureless as a polished stone.

'Well?'

No response.

Koz waited.

Pesach raised a hand. Pointed to the north-west corner of the hall. 'To hell with Maisel. Rudolf should tear down that synagogue and expel all Jews in Bohemia for this.' The voice Pesach mimicked was excited. Tremulous.

'Not so loud!' Koz slapped at Pesach's balustrade arm. 'But keep going! We need more!' Why dive for pearls, when they could be brought to you?

Pesach pointed west. Below *Vertunmus*. Five nachtkrapps clustered there, against the wall. Slouched in fatigue. 'So many scrolls! I've never seen so many piled in that antechamber. Mark my words, that old machine of Brahe's in the Jupiter room is being put through its paces.'

The scroll-washing machine Lang mentioned. Interesting, but no pearl. 'Anybody mention the blood libel?'

Pesach shook his head.

Koz rubbed his face. Around them, the din of Vladislav Hall was rising. 'The child? Is anybody talking about the child?'

Pesach raised a hand. Pointing to the south-east corner.

‘Who is talking?’ Koz craned to see. No clear view. ‘Have you heard a name?’

Pesach shook his head.

‘Who are they talking to?’

Pesach laid his hand on his chest.

Koz furrowed his brow. ‘They’re talking to you?’

Pesach shook his head. Massive hand against the breast of his pair green tunic. Over his clay chest and brimstone heart.

‘No.’ Koz’s tongue was a course lump of dry wood. ‘They’re talking to a *golem*?’

Clamouring voices, getting louder. Raised voices from the south-east corner. Koz squeezed Pesach’s arm. Skin hardening under his touch. ‘Walk there. Now.’

Pesach strode through the hall. People parted, quick at first. Slower as the crowd thickened. Koz spied Pankratius, lit by tall windows, arms clasped around captive listeners. Passionate banter about renovations, golem labourers. Turning pollen into honey. Ignoring Kozilek’s gaze.

Koz hung tight to Pesach. Bobbing in his wake. ‘Who’s talking about the missing child? Have you heard a name?’

Pesach spoke. ‘Johannes Leo.’ The Castle’s legal representative to the Guild. The nervous man who met with Vorel in Týn.

The noise ahead intensified. A man, shouting. Distressed. A woman began to wail. Grief. The crowd parted around her.

Pesach reached the edge of the cleared space. Strolled into it. Koz yanked, pulling Pesach back into the crowd by his rope belt.

A woman in the corner. Squat build, oval face. Viridian dress. High white ruff. On her knees. Moaning into clasped hands. Untied auburn hair a chaotic mess about her neck. A man kneeling beside her. Black sleeved tunic. Golden chain. Comforting, pale hands on her shoulders. Johannes Leo. Face twisted. Warped by sobs.

A Lesser Town burgher broke through the crowd. Chittusi. A skeletal Italian with the hunch of a sick bird. ‘Johannes, Elizabeth... I am so sorry...’ The young woman, Elizabeth, looked up, face gnarled. Leo squeezed her shoulders.

With a yell, she was on her feet. Shoving Johannes away, sprawling, heels skittering on stone. Johannes Leo stumbled back against a court secretary, a short balding man with

topiary eyebrows, barely able to take Leo's weight. Elizabeth was screaming. At him, the court secretary, the burgher. At all of Vladislav Hall.

'They killed him! They killed my John for his lifesblood! For his pure Christian blood!' She beat at herself with bunched fists, screeching. *'Damn them! Damn the Jews!'*

Johannes fell to the ground, sobbing. Chittusi, the Lesser Town burgher, approached Elizabeth. Hands outstretched in supplication.

'Westonia, please...'

She flailed at him. Bellowing. *'Death to the Jews of Bohemia! Death to the Jews of Prague!'* She collapsed again. Falling in upon herself. Wrenching the air asunder with her grief.

Guards flowed into the space. Grabbed the wailing Westonia by the arms. Leo was brought to his feet, and they were ushered together. Westonia didn't struggle. Chittusi spread his bony arms. Embraced them both beneath silk robe wings. The balding court secretary who had caught Leo at the crowd's edge wrung a handkerchief between simpering hands. Tears in his eyes.

Koz had laid a warning hand on Pesach's breast. But Pesach wasn't charging forward, not like he had at Lang. He stood as still as the stone walls of the Castle.

Koz looked around for the golem. Scanning the crowd for the golem Johannes Leo had been talking to, according to Pesach. But there were no other golems.

Pesach was the only golem in this corner of Vladislav Hall.

Chapter 10

Gone were the clouds. Midday heat baked Old Town's cobblestones. Radiated through Kozilek's soles. Marching down like one of Rudolf's fabled clockwork Kunstammer toys. But broken. Crucial parts missing.

No Pankratius to lean on. Vladislav Hall today had been enough for him. Roder had retired to the White Lion.

Westonia's cry still echoed. Deafened Koz to Bridge Street's rabble. People had clustered, after her collapse in Vladislav Hall. Witnesses babbling. Gesturing with spotless hands, gaping with powdered faces. Lips loose. Falling pearls. Koz collected them all.

Death to the Jews of Bohemia!

Elizabeth Jane Weston. Poetess. Wife to Johannes Leo. They were regulars at Vladislav Hall. Usually entreating the Rudolfine Court for financial aid, Westonia's fame frequently brought to bear. Sometimes they even gained audience with Rudolf himself. But despite her talent for poetry, and Leo's new job as a Guild lawyer, their family remained mired in debt. A family of seven children. Six, now.

Death to the Jews of Prague!

John. John Leo. The victim. Missing sometime Wednesday night. Snatched from a bedroom window. Chittusi, the Lesser Town burgher, had been looking into it. Word of John's disappearance hadn't reached Koz's side of the Vltava. Hadn't reached Old Town. Hadn't mingled with the news of the exsanguinated child found in the Maisel Synagogue on Thursday morning by Old Town guards. That combination, that alchemical reaction, hadn't occurred until this morning in Vladislav Hall.

Damn them! Damn the Jews!

Koz had never met Westonia before today. The name was familiar. Her stepfather, however... more familiar still. Edward Kelley. His debt had become Westonia's debt.

Edward Kelley. Outwitted by Kozilek the Collector of Prague.

Koz stopped, panting. Pesach heeled. Dutiful. Like the piebald nadler-cart that had waited outside the Castle to take them home today. Its sausage head parked face-first in a random hedge. Wandering about under its own strange direction. Somehow more than animal, somehow less.

Koz fanned himself. Spied the crookbacked man with the vegetable stall. No more pot-shop golem by his side. Courtesy of Vorel's Old Town guards, now enforcing Guild law. The teetering man hauled a small sack of produce, wincing. A modest weight. More than enough to clench his teeth and wet his eyes.

Pesach fetched up against Koz, watching the skies. No oystercatchers today. Koz led Pesach onward.

New Town. *The Garnet of Night* was quiet. Nobody outside. No Lang yet. Koz poked his head inside. Regulars, drinking their lunch. Tilting arms like clockwork. Automatic. Filling broken machinery with amber fluid and foam. Koz's mouth watered. Pouch heavy with tolars. Head heavy with echoed spite and grief.

Koz marched his thirst outside. Grabbed a stool. Laid his cane across his legs. Rubbed his eyes, still aching from last night's research.

Pesach leaned against the wall beside Koz. Where they had left Lang a day ago. Bruised, choked, robbed. His yellow circle from his pouch cast down at him. Where he had promised to meet Koz again today with the ins and outs for the Old Town likho. The map that would tell Koz what the Castle saw the night of the blood libel.

Dead Horse Market lay before Koz. A sparse crowd today. Across the square, nadler-carts stood arrayed in their statuary. Stabled in perfect formation. Crafted replications. Ready to serve. An elegant frieze, Arcimboldo's beautiful legacy. Ruined by listless golem movements. Half-horse bodies rocking against their back wheels. A Guild maintenance worker potted between them. Perturbed. He popped open a noble clay head with practised fingers. Unspooled the scroll. Squinted at it in the bright midday sun.

Koz took out the yellow circle he had found — *Pesach* had found — in the Maisel Synagogue alms box. Bearing its telling drop of dried blood. As Koz rubbed at it, Pesach

took the circle from his hands. Held it aloft. Pulled at it. Warping it with mammoth fingers. The Guild maintenance worker glanced over. Stretching. Fanning himself in the heat, glassy eyed and frowning. Koz quickly took the yellow circle back from Pesach.

The air was dry. Still. People wandered the square, aimless in the heat. Flies bumbling over an old corpse. Koz leaned back, balancing the stool on two legs. The pot-shop golem with the midnight eyes came out. Wiped tables. Chairs. Arranged them. Clean movements. Studied repetition. Inhuman. No sign it knew that its stitchjob days were surely numbered. Perhaps the mismatched Guild mark on its chest had fooled the likho. Surely it wouldn't fool human eyes. Koz and Pesach watched it work. A silent audience.

Still no sign of Lang.

Koz rested his head against the ale house wall. Warm against his bald spot. His halo of dark peppered hair.

He didn't remember closing his eyes.

53. 49.

A tall figure in a graveyard. Broad shouldered. Simple tunic. Rope belt.

Not a saviour. A monster.

Staring down at an empty grave.

Turning to face Jan. Could it see him?

Could it see beneath the earth

Run

Shouting. Koz was shouting. Pesach's steadying hand, on Koz's shoulder. Koz was falling off his stool. He'd fallen asleep without knowing. His bald spot burned.

The sun had moved. Ale house golem, gone. Dead Horse Market, Bridge Street, no more flies. Fewer nadler-carts in the statuary. Those that were left appeared restless. Rocking about in the long shadow of the two-story building behind them. Nudging their heads against one another.

Koz nodded at Pesach. 'Thank you.' No response. 'It was... I had a nightmare.'

Pesach stared back. Like always. Koz reddened. Stood up. Flapped his crimson mandilion, fanning his body.

Pesach opened his mouth. 'Use the silver watch.' Kozilek's voice.

‘What?’ Koz froze. ‘*What did you say?*’

Pesach’s eyes danced. Flickering. Moments of eye contact as he read Kozilek’s face.

Koz grabbed Pesach. ‘What else did I say in my sleep? *What?*’

Pesach was motionless. Hauling on Pesach’s green tunic only moved the fabric.

Tapestry dressing a stone wall. Koz let go.

Pesach leaned back against the wall, slow. Mimicking Lang’s genial pose. A clay reflection.

‘Fine. Keep it to yourself.’ Koz rubbed his head. It stung, flaming hot. Shoulders aching. Ropes taut in his neck. ‘Lang didn’t turn up, did he?’

Pesach shook his head. Koz swore. Hunted in his doublet for the note from Lang’s pipe. Found another piece of paper first.

Maisel’s work order for Av. Unfinished. And today was the first day of Elul.

Koz swore again. Looked up at the sun. Not many hours left.

Still shaking, he led Pesach across the square. Eyes darting around for distant likho. They entered the statuary. Boarded a nadler-cart. Its wooden back wheels creaked, until the clay floor and equine abdomen adjusted for Pesach’s weight. Pesach patted his kin. Stroking the nadler-cart’s mane.

Koz popped tolars into the slot. ‘Old Town. The Argil Ring.’ The only Av debt left that wasn’t Lang. Not large enough to justify murder. But large was relative.

The nadler-cart nodded its equine head. Trotted out the gate. Out and away from Dead Horse Market, back down Bridge Street. Putting New Town behind them. Pesach watched the world roll by. Koz peered out fitfully from beneath a shielding hand. His throat was dry, sticky. An afternoon gutter clogged with grime.

They neared Old Town Square. Koz pulled out Lang’s note. Remembering Pesach’s Polish words. Whoever **M** was, they *had* invited Lang to Ústí. But no amount of tolars would get a nadler-cart to go that far, even if it could leave Prague. If Lang fled Prague, he fled Koz, debt and all.

A scream, ahead. Desperate. Koz looked up. Their nadler cart was beginning the circuit around Old Town Square. Steering clear of Krocín Fountain. There was a crowd there. But not at the fountain. At the execution stage beside it.

Koz felt heavy as a golem. The woman was still screaming, sharp and high. A Castle guard dragged her up the stage steps towards an impassive executioner. The woman was young, with tangled brown hair. No white bonnet. No blue dress. It didn't matter. She looked enough like the woman who had screamed for Matthias in Scotta's Hominem Mundi mob.

Their nadler-cart rounded the square, and Koz and Pesach turned on the bench, watching as two more women were hauled up the steps. Approximations of what the likho had seen. One taller, one shorter. Screaming, all. The crowd alight with indignance and disbelief. Heavy pikes and cold armour keeping them at bay.

Koz turned away as the nadler-cart left the square behind. Eyes stinging. Screams becoming unreal as they fell behind the rolling urban horizon.

Pesach still looked back. Eyes vacillating. Thick clay fingers still tousling the nadler-cart's mane.

Argil Ring ahead. They arrived at the mouth of its curved, dead-end street. Koz halted the nadler-cart. Clambered off. Trying to shake his mind clear. Pesach stepped off the vehicle beside him, slow and steady.

A group of giggling women approached, sharing a basket of fresh figs. They clambered aboard the now vacant nadler-cart. One of them, mousy brown hair in a tight bun, winked at Pesach. Another, rosy-cheeked, blew Pesach a kiss. Both drinking in Pesach's countenance with appreciative eyes. Koz had seen looks like that before. Tavern eyes. Late night eyes, with slow blinks and slow smiles. Koz glimpsed their intensity as one glimpses the heat of a blazing hearth in a distant window. Seen but not felt. Koz had always been more comfortable staring elsewhere. Watching the stars.

How realistic, how 'human', was Pesach? Golems were fashioned into many shapes, sometimes masculine, sometimes feminine. Built to provide services. And Koz had certainly heard stories. But golems were always naked, bearing only the rough shape of clothes in their golemflesh, if at all. Blank between the legs. So if any of those golems were asked to be intimate, they'd need to... well.

Koz's imagination failed him. It wasn't what he used his imagination was for.

It mattered not. If Pesach noticed the women, he gave no sign. His eyes were locked on the terminus of the dead-end street. The group of women tittered at his obliviousness. Their nadler-cart pulled away.

Koz rubbed his face. 'Pesach. What do you see, when you're not looking? What are you looking at when you can't see it?'

Pesach stared down the street. Sizing up the Argil Ring. Eyeing its upper floors, strafing its long brick lintels.

Koz shook his head. Rattled his cane against his boot. He needed to focus. With Lang gone, this was Maisel's last debtor. Last portal in a dead end. A closed wooden mouth at the base of a bone white façade.

They approached the Argil Ring. Koz checked in the darkness of the small adjacent portico. Looked at the front door. Sniffed the air.

Something lingered. Sharp.

He raised his hand, but Pesach knocked. Huge pink knuckles rapping against dark wood. Footsteps, descending stairs. Koz sniffed again. That tingling smell. Stinging.

Gunpowder.

Koz ducked under the portico to the left. The Argil Ring's door opened.

'You're not Kozilek.' Gruff voice. Italian. A sniff. 'Who are you, bear grease man?'

The barrel of a handcannon, peeking out the door. Pointed at Pesach. Pesach was smiling.

Koz sprung to the door, a hasty pas de chat. Swinging the cane up under the gun. There was a crack, like the whip of gods. Over Pesach's shoulder, an iron ball pierced the sky. Koz dove at the gunslinger, a gagliarda step. Tackling him. A violent lavolta in a haze of smoke. They landed inside. Vacant rooms, an empty hearth. Koz flicked the safety on his cane. The gunslinger elbowed Koz in the face. The cane flew from his grip. They rolled on the floor, Koz gripping a bearded neck with his left hand. His right flailed, a weak fist. The gunslinger barked curses. Italian vitriol. Koz felt a leather sheath poke his side. The man was scrambling to pull a dagger free. Koz pressed his toes into the floor. Tucked his head down. Lunged his forehead against the man's nose, a horizontal soubresaut. Once. A jarring thud. Twice. Forehead wet with blood. The man moaned beneath him, shaking. Koz grabbed the Italian's dagger, still sheathed. Tossed it aside.

Koz looked away from their clumsy coda. Pesach in the doorway. Framed by a blue Prague sky.

The gunslinger squirmed. Squinted through blood, a smashed nose. Desperate fingers reaching. Handcannon. Nearby, against the wood pile beside the hearth. Its bullet fired, but still a heavy club. Koz wrestled with him. Failed to pin him. Right hand, spasming, feeble. Pain lancing the length of his arm.

‘Pesach! Help me!’

Pesach stepped into the Argil Ring. Closed the door. Stared down at the struggling pair.

‘The handcannon! Take it!’

Pesach kneeled down beside the hearth. Scooped up the firearm. The bambitky thug let out a snarl at this. Stilled.

Pesach tilted the gun. Felt the length of its wooden stock with inquisitive fingers. The heft of the metal barrel. It reeked of powder.

Koz looked down at the Italian. Scarred forehead. Long buff coat, yellowed. Stiff enough to turn away a blade. Bushy black beard. Streaked with blood. Wet grey eyes. Muttered oaths.

Koz struggled to his feet, panting. ‘Stay down. I’ve seen enough pointless death this week.’ The gunslinger sneered at him. ‘Are you a parting gift from Lang?’

The bambitky thug spat a bloody wad at Koz. Koz tried to kick him in the groin. The man rolled his legs, deflecting. Koz kicked him in the side. Scooped up his cane. Drew his rapier with a flourish. Placed the tip against the gunslinger’s neck.

‘Again. Did Lang send you?’

The grey eyes were clearer now. Sharpened by the rapier. He licked bloody teeth, baring them. ‘Chittusi.’

Koz wrinkled his nose. ‘What does a Lesser Town burgher want with me?’

‘You are a slave to vermin.’ Gunpowder eyes, flaring. ‘Usurious dogs. Murderous cowards.’ He knocked aside Koz’s quavering rapier. ‘Their ghetto must be purged. Death. *Death to the Jews of Prague.*’

Neither of them saw Pesach move. One moment, the Italian was prostrate on the ground. Next, Pesach had him by the neck, slamming the man against the chimney. The

thug jabbered in terror. Black boots swinging, helpless. Cheeks white, under black beard and fresh blood.

Pesach raised his other hand. An axe. He had found an axe in the woodpile. He swung.

‘No!’

Pesach froze. Immobile. His axe arm hung in the air. Stable as a flying buttress. The gunslinger cried out, guttural. Barking his fear. Thrashed at Pesach’s hand. Tearing at his wrist. Fruitless. Pesach was frozen in place like a statue.

Koz’s voice cracked. ‘Let him go. Now.’

Pesach released his grip. The gunslinger collapsed to the floor. Blood flowing from his flattened nose. He crawled away. Gibbering. Wild eyes glancing at Koz. The axe. Pesach’s expressionless face.

Koz pointed his rapier at the gunslinger. Steadied his wavering arm. ‘Your money pouch.’ The ruined man scrambled. Threw Koz his pouch. ‘Now. Run. From here, from Prague. Never look back.’ Koz gestured to Pesach. ‘Because if you return? If you ever speak a word against the Jews again? He’ll hear it. Wherever you are.’

The bambitky thug spared a look at Pesach. Familiar fear. An insect learning the weight and intent of a falling boot. He scurried away.

Koz spat, rounding on Pesach with a snarl. ‘And you! No more attacking people! You don’t hurt anyone unless I say so. Do you understand?’

Pesach, stoic. Unmoved.

Koz shuddered. Sheathed his rapier. Wiped blood from his forehead. Scooped up the gunslinger’s money pouch. Quick check of the other rooms. Tracks in the dust. Weeks old. Whatever the old owners of the Argil Ring owed Maisel, they were long gone.

The front door hung open. A thin trail of blood. Red line out of a dead-end. No sign of the handcannon. Koz stood in the doorway. Outside, the sun threatened to kiss the architectural skyline.

A look back at Pesach. The golem still gripped the axe.

Koz cleared his throat. ‘Shabbat tonight.’ Pesach nodded. Koz motioned with his head for his companion to follow. ‘I think it’s time you and I had a talk with Maisel. But first. *Please*. Put that axe down.’

Chapter 11

People loitered at the Jewish Town gates. Gentiles. Crowded as Old Town Square. Thunderous mutterings, stormy eyes. No fear for the likho, here. Nobody screaming anything. No cries for justice. No blood libel on the lips. Not yet. A mob in potentia. Waiting for the rumbles of rumour to coalesce into a lightning strike. Waiting to see who would test Rudolf's protection of the Jews first.

Koz walked behind Pesach. Guiding him. They pushed past the Church of God's Mercy, to the south-east gate of Jewish Town. People made way for Pesach, whether they wanted to or not. The Old Town guard at the south-east gate ignored Pesach. Peering at Koz over his lumpy carmine nose. Koz stared him down. Bunched fists quivering. The guard chewed his soiled, verminous moustache. Opened the gate. Koz and Pesach slipped into Jewish Town. The hush inside its ragged labyrinth was deafening.

Jewish Town Hall. Designed by Roder, long ago. Mordecai Maisel stood outside, near the Old New Synagogue, talking with an anxious crowd. Modest garb, yellow circles all. The Primas addressed each of them one by one. Comforting words. Clasp hands. Soon, they would be inside the synagogue for prayer. The sun had almost set.

Seeing Koz, Maisel brightened. 'Koz! My dear friend.' A glance at the Old New Synagogue. 'If you are here on business, you must make it quick.'

The Samuels approached. Samuel the Elder, Samuel the Younger. Emerging from the mikveh, the ritual bath house. A woman stopped them at the fringe of the crowd. Carefully affixed a yellow circle to the breast of Samuel the Younger.

Maisel reached for Kozilek's hand. 'Jewish Town is fragile tonight. My people need... solidarity. Can you wait for us, outside the synagogue? Then, please. Perhaps

you would like to eat with me this Shabbat eve.' A concerned squeeze. 'Roder tells me how rarely you eat.'

The fabric of Samuel the Younger's sleeveless tunic was ripped. A fresh yellow circle, unblemished and new, now covering it up.

Koz let go of Maisel's hand. The Samuels were disappearing into the crowd. The tide of prayer shawls and robes flowing into the Old New Synagogue. Pesach's eyes followed the Samuels. Koz made to step into the crowd after them.

Maisel laid a hand on his shoulder. 'Koz? What's going on?' Holding Kozilek in place. 'If you're here to tell us the identity of the young boy... word has reached us here. We know it was one of Westonia's children. John. Her grief must be terrible.'

Koz stepped back to Maisel. Reluctant. 'John. Yes.'

'Westonia has powerful friends in the Rudolfine Court. And she has spoken out against us before, in her poems. But not like this.'

'No.' The Samuels were gone. Melted away.

'I've reached out to the Castle. A long time, since they last listened to me. But Rudolf's court secretary assures me I'll get an audience with the Holy Roman Emperor in three days. This coming Monday evening. They've agreed not to take punitive actions until we have spoken. I hope we will have found evidence of this falsehood by then.' Maisel squinted. Inspecting Koz's hair. His forehead. 'Is that... blood? My boy, are you hurt?'

'Oh.' Koz ruffled his hair. Sticky. 'A run-in with one of the bambitky. Nothing serious.'

'What happened?'

Koz glanced back at Pesach. 'Well, we didn't make firewood.'

'What?'

'All debts are paid.' Koz hefted the gunslinger's money pouch. 'Here's Argil Ring. And Lang's interest, maybe. I haven't counted it.' He handed it to Maisel. 'Courtesy of Lesser Town.' There was a tingle in his extremities, his head. He felt light. Like his feet might glide away from the immaculate Jewish Town cobblestones.

Maisel grimaced. 'My friend, you look terrible. Please.' Glancing at the setting sun. Too much longer, and he wouldn't be able to discuss business. 'Please. Do you know who is

behind the blood libel? Is it Vorel, scheming in the House of the Two Bears, or in Týn? Is it Lang?’

Koz wavered on his feet. So light. He frowned at Maisel. ‘Anyone lost a yellow circle recently?’

Maisel stammered. ‘I... no. Not that I know of. I haven’t heard anything.’

Koz produced the yellow circle. Showing its spot of dried blood. Maisel took it from him, fingers weak.

‘What happened? Who...’

‘It was in the alms box. In the Maisel Synagogue.’

Maisel twisted the circle. ‘This is blood.’ Tangling the yellow circle between his fingers.

‘You know... Vorel knew enough to post guards outside the Maisel Synagogue yesterday morning. Before I’d even left.’ Koz curled his toes in his boots. Tried not to float away. ‘And... she’s cosy with the Guild. Nachtkrapps were all over Old Town the night before. Depending which scrolls they took out, it’s possible the likho didn’t see a thing. Which means the Castle didn’t see a thing. News didn’t reach Vladislav Hall until this morning. This blood libel setup, it’s been a very well-kept secret.’

Maisel watched him. Breathing shallow. ‘Kozilek...’

‘So how did *you* know, Maisel? Why did you send the Samuels to fetch me?’

A furtive look. The low sun illuminating the Old New Synagogue behind Maisel. Gothic brick pediment a smouldering red.

‘I didn’t...’ Maisel cringed. ‘I didn’t know *exactly* what had happened. I found out from both my Samuels very early that morning. They both disappeared in the night, both came back. They told me something dangerous was at my synagogue. So I sent them to fetch you.’

‘But it was only Samuel the Elder that fetched me. Samuel the Younger couldn’t.’

Maisel nodded.

Koz tried to breathe in. Each tiny breath filling him to bursting. ‘Because he couldn’t risk walking that far into Old Town without his yellow circle.’

Maisel crumpled the bright circle of fabric. ‘You know my nephews.’ Pressed it into the pink crucible of his hands. ‘They don’t like to talk to outsiders. Even now. But I know

how to communicate with them. They're my *boys*. They can be... difficult. And being Jews, they are limited in what they can do. Prague won't believe them. Prague won't believe *me*. You have to trust me. I wasn't trying to deceive you.'

'Does this yellow circle belong to Samuel the Younger?'

Maisel nodded.

'So what happened to it? Is that his blood?' Koz swayed. His cane a loose anchor in dark water. 'What do you know?'

'Too little.' Maisel unclasped his hands. A soft, fuzzy little ball of yellow nestled in his palm. Blood tucked tight inside. Like the klaf in a mezuzah. 'Not enough to protect my people. I've never known enough for that.'

Koz felt a flutter behind his eyes. Tried to blink it away. Rocking gently with each quake of his own pulse.

Maisel's face crumpled. 'When the Maharal fled Prague, for Poland, in '92... he said he needed answers. He knew Rudolf was making golems. So he left Jewish Town under my protection. My friend thought too highly of me... three years later, Rudolf unveiled his golems, and the Maharal and his family were never heard from again.' The old Primas swallowed hard. Staring through Koz. Unseeing. 'I tried the subtle path, you see. Clever. Like the friend who trusted me. That is why I made friends with Arcimboldo, at court. To spy. To steer him. Working in the shadows like a fool, while Rudolf's nadlers marched the streets. While Arcimboldo *used* me, all the while gaining access the secrets of the sofrim.'

Koz struggled to parse Maisel's words. Pinned under the weight of the signet ring hung beneath his tunic.

Maisel looked west. To the cemetery, to the Vltava. Wet eyes blinking as the red sun kissed the horizon. 'Arcimboldo retired in '99. Brahe was named the Royal Golemsmith. But I had just lost my wife Frummet to the plague... I could not go on. I could not bear it. So, I entrusted my mission to Rabbi Gans. I begged the Tzemach David to be the ear for Jewish Town. He had chronicled the life of Yossele, he knew of golems. He befriended Brahe. But...' Maisel looked back at Koz. His face twisted. Strange. 'When Brahe died in 1601, and Gans soon after, may the memory of the righteous be a blessing... I knew the quiet path had taken me too far. Too far.' Maisel shook his sagging face. His thick, sallow cheeks. 'It was only then that I had the courage to speak out against Rudolf. Only *then*. Imagine Prague today, if

I found my courage sooner. The courage the Maharal needed me to have. The courage of Yossele.'

Koz rocked on his feet. Feeling Maisel's signet ring with tingling fingertips. The last gift of David Gans. A tiny thing, to feel so weighty. It pressed against Koz, beneath his tunic. Flattening his lungs against his spine.

Pesach stepped forward. He placed a hand on Maisel's outstretched palms. Dwarfing them. With his other hand, he fully eclipsed the hands of the Primas in his. Clutching them above and below.

Maisel met Pesach's eyes. As if seeing him for the first time. A single fat tear ran loose into Maisel's snowy white beard.

'Who...'

Koz breathed out. 'He came to me.' Another quaking breath. 'The morning of the blood libel. Someone sent him to me.'

Maisel looked down at Pesach's hands. Getting the feel of Pesach's rough skin. Maisel's lips fluttered. Trying to chew the sounds free of his own mouth.

'You can feel it, can't you?' Koz watched Maisel caress the palms of the golem. Koz touched his own skin. Alien. Lighter than air. 'You've felt this kind of hand before.'

Maisel leaned into Pesach's eyes. Those painted garnets. Drifting across Maisel's features, innocent. Curious. The sunset silhouettes of Jewish Town edging towards them. A rising tide.

Maisel let out a sob. 'Yossele.'

'No...' Koz took a step back.

'It's him.'

'No. It's new.' Koz staggered back. 'He's *new*. It isn't him. *It's not him.*'

'I know him.' Maisel was weeping now.

Koz fell back against the Jewish Town Hall. Looked up at the Old New Synagogue. Its fabled attic. Where the Maharal had laid Yossele to rest.

Maisel cast his eyes up to Heaven. 'I will always know him.'

Pesach released Maisel's hands. Took the yellow circle from the Primas. Maisel threw his huge arms around Pesach's bulk. Embraced the huge golem. A burly anchor in the encroaching shadow.

'Yossele!' Maisel's voice was muffled in Pesach's tunic. 'When your body was stolen from us, we thought you forever lost. But you've *returned*.'

Koz scraped against the wall. Teeth bared. His chest clenched, flesh heavy. Head pounding. All lightness evaporated now.

'Oh, *Yossele*. Our guardian. Our guardian sent from God.'

Pesach turned to look at Koz.

Accusing? Forgiving?

Familiar?

53. 49.

the silver watch, for them to find

Could it see beneath the earth?

Koz ran. Hobbled, three-legged. Cloak flapping red like Yossele's new tongue.

Fleeing the saviour of Jewish Town.

The Astonishing Tale of the Healer's Daughter

This isn't a story about golems.

But perhaps this is a story you already know.

This trial was famous, in its day. There are those who still speak of it. There was an apothecary named Mauritz, whom the evil Thaddeus had taken a disliking to. For you see, though Mauritz had strayed from Judaism, he was still welcome in the Jewish community. Perhaps this rankled Thaddeus, a Catholic man for whom faith was supposed to be absolute. And so Thaddeus sought out Mauritz's daughter, Belle. He converted her to Christianity. And then he poisoned her mind, turning her against the Jews, her own renounced heritage. He convinced her it was right and just to topple her own father.

This was all a means to an end, of course. Thaddeus' true target was the Maharal, and his new powerful friend. The mysterious figure thwarting blood libels with his wrathful hands. Oh yes — tales had spread of the mighty man who defended the Jews. Blood libel plots undone, dissenters beaten. A mute goliath. And so Thaddeus schemed and conspired. Defeating the Maharal would be his greatest triumph.

But it had to be the blood libel. What other method did Thaddeus have to defeat his nemesis?

Perhaps it would interest you to know how feeling shapes reason? How the human mind can mark a singular event with powerful emotion, thus returning to it again and again, all the while calling it logic?

No. No, I thought not.

And so Thaddeus watched, and waited. And soon he learned that there was a maid by the name of Erika who had mysteriously disappeared from Prague. In her house one night, gone the next.

And now Thaddeus had Belle under his thrall, whom everyone loved, and everyone would believe.

What choice did he have but to play the cards he was dealt?

But you surely know the details. Of how the young Belle, following Thaddeus' instruction, waited until she had formally accepted Christianity from the Cardinal. How she took that opportunity to speak directly to the Cardinal about the Jews, and her father Mauritz. She accused her father of being complicit in the blood libel, claiming that he had sold flasks of the lovely Evka's blood to two shamoshim of the court of the Maharal. One shamesh was an elderly man named Avrohom. The other, a handsome man, but without words. Quiet on his feet, but stronger than those around him.

Belle told the Cardinal that Evka the missing maid had been bled dry. The blood sold to the Maharal to make bread for Passover. Coached by Thaddeus, she tearfully gave her account.

But despite Thaddeus' efforts up to this point, the Maharal was still respected in all of Prague. And so while the Cardinal was obliged to pass Belle's accusation on to the Castle, he passed it along to the Maharal first. Unlike Thaddeus, the Cardinal did not consider faith an absolute. He warned the Maharal that an ill wind was blowing. Readying him to prepare for the worst.

As you know, once Belle's accusation reached the Castle, Castle guards were sent to arrest the shamoshim of the court of the Maharal, to interrogate them about their purchase of flasks of Christian blood. They arrested the old shamesh Avrohom, but could not find Yossele. The Castle guards found no sign of the other shamesh described by Belle, the man who was quiet and strong. Being forewarned, the Maharal had hidden the golem away. Finding only one figure to focus their prejudice on, the Castle guards fell upon Avrohom with a fury.

I won't bore you with the court case. It took weeks of heated argumentation, Thaddeus spitting bile, the Maharal praying for understanding. Praying for time. For his most clever manoeuvre had yet to bear fruit.

The Maharal was acquainted with Evka's old employer — a slaving, venereous man. The Maharal suspected that Evka had fled Prague to escape his wilful clutches. So the Maharal sent Yossele out into the world. Yossele had seen Evka many times running errands in Jewish Town, as her old employer often borrowed money from Mordecai Maisel. The golem knew Evka by sight. And so Yossele, gesturing to the Maharal in a language of hand that they had both developed, promised his creator that he could recognise the maid amongst a thousand other people with nothing more than a glance.

You see, Yossele could find anyone. Anywhere. No matter how far they ran.

This pleased the Maharal. So he composed a note for Evka. Explaining the horror that had befallen his people. Entreating her to return to Prague. This he gave to Yossele, along with some money to pay for her return, and he sent the golem out into the world.

Can you imagine how this maiden journey must've been, for Yossele? How alien? How different the many scattered villages of Bohemia must seem, compared to Prague?

Yes, you can picture it — as a human might. And thus, with human imagination, you may believe that you can imagine this experience as a golem might.

You cannot.

Of course, Yossele was successful. He recognised Evka at a great distance — a distance that, to a human, would be impossible. No mortal secret could escape his gaze.

And so Yossele gave Evka the note, the money. Compassionate, she followed him home to Prague. Yossele led her straight into the courtroom, where the old shamesh Avrohom, bruised and beaten, desperately gave testimony. Where Thaddeus was screaming for the expulsion of all Jews from Bohemia.

And thus the court case was brought to a close. Evka testified that the Jews had not spilled a drop of her blood. Yossele, and Evka, had won the day. The Maharal had won the day.

The libellous Belle was imprisoned immediately. Her life forever destroyed. The venal Thaddeus, slippery as an eel, escaped to conspire another day.

But what of Avrohom? Hmm? The old shamesh man forced to bear beatings intended for Yossele?

Perhaps it would interest you to know that Gans' story beholds no guilt in this act. Poor Avrohom's loyalty is assumed, but could this loyalty have been shaken that day? His faithfulness to the Maharal?

No. No, I thought not. If it wasn't of relevance to David Gans, the Tzemach David, fabled friend of the great Tycho Brahe — if it wasn't important enough to be written in his tale — how could it possibly be of relevance to the likes of you?

Chapter 12

Koz sprinted from Jewish Town. Panting. Yossele was back. It rang cacophonous inside him, a clapper of clay in a voluminous skull bell. Yossele was *back*. Yossele had *found him*. Not a saviour. A monster. Koz reeled, limping. Impossible to breathe. Prague spun around him. His exhausted, battered mind unspooling like a spilled scroll.

Old Town. Drowned in night. A smeared dream. Shimmering lanterns, cold in the darkness. Dotted the streets like reflected stars on the rippling Vltava. Urban currents, buffeting. Clouded. Black silt filled the eyes, the ears. People floated, Koz floated. Bouncing downstream. Vyšehrad shit and dredging house driftwood. Along the bottom, well-trawled streets fanned and twisted in miniature tributaries. Coiled and splitting. Fracturing shadow and bleeding light. Following seams of immortal clay.

Koz leaned against a vaulted portico. Panting. Throat raw with icy fire. He had found a rock once, as a child. In the Vltava. Etched like a star, but with tiny bones. A celestial footprint. A dead baby angel, a creature from the sky. Karl and Helfrich stole it from him and hurled it back into the river.

Behind a closed door, revelous laughter. Koz fell away. Downstream.

Prague's cobblestones were quieted tonight. Whispering under weaving boots. No nadler-carts cantered across them. Tonight, tomorrow, entire statuary stood still in mimicked prayer. Obeying the Shabbat. Voiceless creatures of clay. Silent contemplation. Caricature.

Old Town Square beckoned. Rancorous fire, lurking at the end of every lightless tendril. A glowing ocean. It would surely be brimming tonight. As though it were the Prague that was. But it was a magic mirror. A trick. The carnivals of old were gone. Last

resting place of frolic and folly, and failed martyrdom. But on the Shabbat, the people of the world licked the air and tasted the freedom they craved. With every golem in Prague immobile, people gathered, but not to dance. Now they marched toward the execution stage to a military drum. The snap and roll of Scotta's lies. Promises to angry children. Ripples in dark water. Mouths ablaze. Crying in thunderous waves to be heard. Crying atop a sandbank of blue-dressed corpses, necks robbed of heads, robbed of tangled, russet hair. But they would be flanked by a grey shore. Castle guards. Rushing. Crashing hard against them. Split and scattered, foaming red. Spraying Latin from bloodied mouths. Calling out now, for Matthias, the enemy of their enemy. Their friend. Koz peered down twisted streets to Old Town square and saw the pyre in their eyes. Saw these embers reflected on the third floor of the White Lion. Roder, joining the chat for Matthias. Crying out a name that could kill them both. Koz turned his back to it. All of it. Clawing deeper into the black.

Midnight arteries. Clumps of dross, collecting in doorways. Cackling spectres. Retching ghosts. Cloistered scrums of rumpled clothes, thrusting, moaning. Koz lurched. Slipped. Cane twisting. Caught his balance. Everything leaked here. Bile, urine. Precious humours. Tears as silver as fish. As tolar. Or silver watches. Rivers of twinkling wealth, flashing bright, flowed down into Kozilek's moustache, his beard. Lost forever. Night cool on his face. Beneath his clothes, against greased and matted scars, he felt withered and breathless.

Koz stumbled. Fell against a fallen statue. Across its back. Golem. Not praying. Silent, but not in contemplation. The one the porters killed. Brass message tube empty. Paper brain rolled out flat. Unintelligible scribbles. Edges of the scroll frilled with tiny, florid shapes. Spring fruits and vegetables. Interlocking leaves. Decorative Vertumnan border. Koz pushed up, off the missive golem's torso. It was cracked, now. Shiny fluid seeping out. Brimstone blood etching the cobblestones. In death, even golems leaked their humours. Bleeding into the endless urban river.

Above it all, watchful constellations. Likho eyes catching the starlight. No Shabbat for them. No ground to touch, to prey upon. Held above their own piety by the high will of the Castle. It didn't matter what they saw, now. Now Yossele had found him.

Kozilek's palms stung. Wiping them on his mandilion. Fabric filthy black in the starlight. Golem blood could scar you for life. New. He'd never been scarred by one before. What grease, for that? What animal, what herb, what leather glove?

Koz ran from the alley, staying adrift in rivulets of pitch. Gans died in an alley nine years ago. Throat slit open to the sky not long after Brahe paid the cost of politeness.

Beloved Prague. The love of a child for its city, its promise and splendour. When had it soured? Dreams of bright costumes. An audience to dance for. Immortalised in grace. Rancid, now. Fouled. When young Koz fled from Prague to Italy, he had dreamt of home. Now home, he dreamt as a terrified child did. Screaming. Searing. That frail body. A ragged throat, ripped wide. And above it all, a towering monster. Lifeless eyes. Mind beyond mortal comprehension. Staring down at an empty grave.

Washing up against another building. Someone was thumping at its expansive double doors. Gripping the imposing stone archway. Screaming for shelter. For justice. For blood. Above the door, two bears, carved in profile, looking down. Impatient. Indolent. The screamer grew hoarse. Thrashing his cane against wood and stone. Pounding on a locked door with a gloved right fist.

Stars began to spin. Streaking. Bloated moon wheeling overhead. Somewhere, behind the celestial tapestry, clockwork whirred. Placid. Unrelenting. Brahe had watched the dance. Between birthing clay children, he learned the steps. An audience to the Heavens as they spun around Prague. The centre of the world. Clockwork curio balanced atop a crown of clay. Clever Brahe. Sighting his telescope above a shimmering electrum nose.

The House of the Green Mound burst through the undulating street. Clawed its way through neat cobblestones, into the sullied Prague air. The necromantic vestibule glared at Koz with its high windows, shutters blinking. Edward Kelley, home at last, clawed his way out of one of its eyes. Koz recognised him. He didn't have electrum ears. Kelley wept for young John. His dead grandson. Leaning out into the sky, now, not from a shuttered window, but between iron bars set into a Castle tower. A hole from which no light escapes. Kelley's pallid skin shone in the moonlight. Poisoned. Defeated. Vanquished.

Kelley pointed down at Koz. Pointed at his false fingers. 'A famous stranger.'

Then he fell. No scream. The soundless apparition didn't even touch the ground.

Koz ran. Biting his mouth closed. Who knew what earless men could hear.

The sun clawed its way free of the horizon. Irrelevant. Bridge Street, Dead Horse Market. Bright. New Town roiled, streets pulsing. Architectural clusters of filth cramping and bursting. Skin rippling with the names of the dead. Gnashing, squealing creatures spewed forth from slit-belly doorways, below rows of glass maws, tight square lips, split and rattling. Muffling roars of dissent.

Koz smelled the old New Town tannery before he saw it. Those tanning baths, so bitter. The acrid tang that had dissolved his young flesh. Tight now, pulling at him again. Twisting him into a circle on the street outside. He screamed. A bleating thing. The animal scream of his brothers. The centre of the world tilted, and he was dancing again, dancing on air, his final steps. Hand out to break the fall. No splash. No searing. Just the crack of warm cobblestones. Chin jarring against the unbalmed scars of New Town. The taste of dirt, and shit. The welling of blood.

He felt his body sinking. Perhaps he had never emerged, from that tanning bath. Perhaps he had always been there. Suspended. Caught in a moment of pain, beaming and pure. Young and new. Complete. Four fingers and thumb on his right hand. Limber. Buoyant. Never reaching the riverbed. Never leaving the current. Trees marched by, silhouettes never lingering. Leaves rustling like human voices. Young Koz drifted beyond them. Out of Prague. But not to Ústí, no. Somewhere dark and quiet. Comfortable. Enveloping. A fetal embrace. The tender noises of a protective mother. Entreating him to smile again. To play with his clay figurines.

Koz rolled over with a start. The residents of New Town ignored him. Pain replacing the familial embrace. When was he? He felt his right hand, his glove. One of his false fingers had snapped. Ring finger. *Digitus annularis*. He touched it. A prosthetic wound. He didn't feel anything. Laughed. Licked dirt from his lips. Dried blood. He laughed again.

The sky dimmed. A day in madness becoming night. Hearth receding over the horizon. Koz breathed in. Breathed out. Rhythm of the earth. Centre of the world. Three stars appeared in the night sky. One by one by one. Others followed, like candles in Týn. Whispers in a mourning veil.

Footsteps. Not passing, but stopping.

Two women leaned over him. Modest woollen cloaks, ragged. Well-worn. Yellow circles. One had chestnut hair, ashen complexion. Dark blemishes under pitying eyes. The

other, younger, had to lean on her friend to stand. Pasty skin. Ebony hair, prim. Held in place with long pins. Sharp eyes. Clever. Reading Kozilek like a golem.

A third figure approached. Silent giant. Familiar. Tunic, rope belt. Incomprehensible eyes. But not lifeless.

‘Yossele.’ Koz coughed, rasping. Sandpaper tongue bloated in his mouth. ‘You found me. I know you’ve come to take me. You’ve come at last.’ Smiling. A hole awaited him. No light would ever escape.

‘No.’ The young woman. Polish accent. ‘That note he brought to you was very clear, Kozilek. *His* name is Pesach. And we should know.’ She smirked, a scimitar’s curve. ‘After all, we made him.’

Pesach reached down. Koz closed his eyes. With impossible arms, outspread and cosmic, Pesach peeled Koz away from the cobbled riverbed, freeing him from the pull of the river, and lifted him into the wheeling sky.

Chapter 13

Cold, in the White Lion. Night. No sign of Roder. No gregarious host to fuss over visitors.

The two Jewish women sat across the table from Koz. Huddled close in the candlelight. Even seated, the younger woman leaned on the older for support, gently cradling her own abdomen. Frail, but not fragile. Pesach sat in the corner. Giant in repose. Looking at his mothers with beatific features.

The young woman was no longer smirking. 'Have you sobered up? What *had* you been drinking?'

Koz, staunchly sober for many years now, sipped some water. Inspected his gloved right hand. Squeezing it. He daren't take it off. For now, his false finger could stay broken.

'Pesach tells us you ran away from him.'

Koz looked up. The older woman. Ashen face flat, tone accusatory. Old pain in her eyes. Polish accent also.

'I got confused.' Koz rubbed his temples. Nadler-carts, shod with iron and gunpowder, stampeded back and forth across his skull. 'I got confused for a whole day, apparently. It happens sometimes.'

'You left him alone. On the Shabbat, no less. It's a good thing he came back to us.'

'Him?' Sitting on the floor, Pesach's head was almost level with Koz's. 'You're telling me he needs taking care of?'

She scowled. 'Not in so many words.'

'He's fine! Yossele here never needed any help. New face, new name. Dress him up however you like. I'm not his wet nurse. He's beyond human needs.'

A heavy pause. Older woman glaring at him. Then the younger woman laughed. A small outburst at first. Declarative. Then she was cackling, exuberant. Her hand on the older woman, keeping herself upright. Then she laughed too. Colour budding on sickly cheeks.

Koz tried to chuckle along. Gave up. Forced down some bread, finished his water.

‘Oh, Kozilek!’ The younger woman composed herself. Unpinned her hair, shaking out boisterous curls. ‘Oh, my dear man. You really are too much.’

‘So I was wrong? *Maisel* was wrong?’

‘Obviously!’ Mirth pinching smooth features. ‘But, in fairness, we haven’t been forthright with you. And perhaps neither of you are terribly clever.’

‘You expect me to believe that you made Pesach. Brand-new. All by yourselves.’

‘Yes!’ The incredulity of the young. And a flash of something else. The older woman glanced away.

‘Okay.’ Koz pushed his bread and nausea aside. ‘Be forthright then. What does **MA** stand for?’

‘Miriam.’ The older woman.

The young woman bobbed. A seated curtsy. ‘Adara.’

The golem spoke. ‘Pesach.’ The women smiled.

Koz frowned. ‘Adara. That’s a rare name.’

‘Oh!’ Adara ignored him. Turning to Miriam. ‘Don’t forget! We need to check Pesach’s scroll tonight. I want to make sure everything he’s learned is compiling correctly, after the Shabbat.’

‘Later.’ Miriam patted Adara’s hand. ‘It’ll be fine. We worked for so long. And your scrollwork is brilliant.’

‘Clearly. But theory is one thing, practice another. We don’t know what biases might have cropped up. Out on the streets. From other golems, swapping stories.’

‘My dear. We may never know.’

Koz thumped the table. The candlestick rattled. Pain jolted, as far as his jaw. The women stared.

‘I’m sorry.’ Koz shook a regretful hand. ‘But you need to slow down. Before you unspool Pesach’s brain at my table, I want you to explain yourselves. What you want. What this golem *is*.’

Miriam raised her eyebrows. 'He's Pesach.' Clasped her hands. Unclasped them. 'It's the name we agreed upon, and he didn't seem to mind it.' Fingernails bitten raw. 'It was either that, or Percival.'

'Percival?'

Miriam stiffened. 'To honour the dead.'

Ashkenazi Jews. Naming children after recently deceased relatives. 'Okay. Pesach it is. What did you make him for?'

Adara scratched her chin. 'It's just a job. We can't say who for. Much better to think about who we work *against*. A shared enemy.'

'Who? The perpetrators of the blood libel?'

'It's a start.'

'Huh.' Koz peered at Adara's hands. Stained with ink. 'I thought... I didn't think women could become sofrim.'

Miriam nodded, affirming this. Adara watched him.

'So you're scrollhackers?'

Miriam grimaced. 'No.'

'Scrollhackers are so... inelegant.' Adara wrinkled her nose. 'Cutting, stitching. Chop and change. No originality. They only shuffle around what's already there.' Shivering. 'I can't stand those *butchers*. Assuming that every word needs to be instantiated by human hands. Assuming that a golem's mind is just words on a page. A changed word does not a changed mind make! And those monsters working in pot-shops are just as bad.'

Miriam flinched at that word. *Monster*. Adara squeezed Miriam's weathered hands.

'So you made Pesach yourself? The scroll, the clay, all your work?'

'Yes!' Young eyes blazing. 'If you can believe it!'

Miriam sighed. 'Adara.' The young girl said nothing. Miriam forced a smile. 'We should be honest with you, Kozilek. Pesach's flesh isn't new. But Pesach is. A new identity. But we had to work with existing materials.'

'Okay. So he *is* a pot-shop job.'

'No!' Adara, braggadocio and brimstone. 'I will have you know that I wrote Pesach's scroll *myself*. I read his old scroll. I wrote a brand-new version. I improved upon it! Drastically!' Gripping the table. Smudges on the wood.

Koz opened a conciliatory palm. 'Okay! Okay. So you... rewrote an old golem. To be the way that he is. Like Westonia wrote *Parthenica*.'

Adara huffed. 'Nobody writes a complete scroll! What would be the point? How can you write on a piece of paper everything that the golem should or shouldn't do? It is one thing to script an instruction, but quite another to live it. The scroll acts not just as a facilitator, but an aggregator. Golems think with their bodies, Collector. Everything, *everything* that can think, does this. Patterns changing patterns. Forever.'

'Clay can *think*?'

'Some clay isn't just clay. There's more than dirt beneath our feet, you know.'

'Okay.' Koz sat on this the moment. Straightening his beard. 'I don't know clay, but I know a little about symbols. Agrippa has a lot to say about them. Same with Pythagoreanism, Lullism. I've read some books here and there.'

'Well done.' Adara seemed to enjoy her pricklyness.

'But the Kabbalah, I don't know. It's beyond my understanding.'

'Of course.'

Koz huffed out a sharp breath. 'Tell me. Aren't golems just... symbols? Thinking through the language in their heads? The sephiroth, the language of God?'

Adara raised an eyebrow. 'That's... one way of looking at it.'

'And the sephiroth were the language of Adam. So.' Koz toyed with his glove. Tugging at his broken finger. 'Here's my question. Shouldn't golems think like people?'

'No.' Adara grinned. A trapper watching her prey bound towards her. 'Golems think like golems.'

'With their clay.'

'With their selves. With their *lives*.' A desultory wave. 'And yes, before you ask again, with their scrolls. But not the scrolls on their own. Would you call a diary a life lived? A poem, a letter, a missive? Or just an extension of one?'

'But what about the words on the scroll? You chose what Pesach's scroll says. Doesn't that mean you know his thoughts?'

'I'm afraid you're asking the wrong question.'

Koz made a noise. Got up from the table. 'You're not the first person to tell me that.'

'I'd believe it.'

Koz walked to the cupboard beside the hearth. 'So what's the right question?' Squinted in the candlelight. Opening boxes. No tobacco. No Roder. Koz could feel the absence of his housemate gnawing at him. Out there, people yearned for Matthias. Not in here. Not in here, because Roder wasn't home.

Adara's head swivelled to him, owl-like. 'I'll show you. Bring me one of those boxes.' 'Which one?'

'Any.' She clicked her fingers. Impatient.

Koz opened a box. Sniffed. Herbs. Dried lovage leaves. He closed it. Brought it to the table. Slammed it down in front of Adara. The young woman's eyes went wide, then narrowed. Sparkling murder-holes.

Miriam was staring at Koz's glove. At the rattling of his broken finger.

Adara upended the contents of the box. Swept aside the spilled herbs. 'Do you have Pesach's note?'

Koz sat. Rummaged in his doublet. Handed the note to Adara in a gloved hand. Adara took it, and Miriam reached across the table. Her emaciated hand on Kozilek's glove. Feeling for his false fingers. Deep eyes glimmering.

Adara ignored them. Rolled up the note, from left to right. 'Let's say this is a golem's scroll.'

Koz watched Miriam. 'It isn't.'

'Let's say it is.' Adara dropped the note into the empty box. 'Now. You know what's on that note. You know the words. Like I know the 713 letters to be written on the klaf for a mezuzah.'

'Yes.' Koz flinched as Miriam removed his glove. Slow and careful. She caressed his stumps. His olive fingertips. Traced his alabaster lightning scars, his crimson palm. Not loving, but sympathetic. Almost matronly. Her skin was a morning in winter. His hand felt very far away.

'But let's not say this box for herbs is a mezuzah. Let's say, for the moment, that this box for herbs is actually a golem. If you know what's on the note, if you intimately know every single character, do you know what the golem is thinking?'

'Of course.' Koz watched Miriam probe inside the leather glove. She pulled them out. Two clay figurines. Two tiny boys, the height of a finger. They had looked almost identical,

once. Twenty-one years ago. Years of being ensconced in leather had rubbed them smooth. And now one was broken in half. Shards of clay tumbled out in its wake.

Adara went on. 'The problem is, the box *isn't thinking*. At least, let's assume it isn't. If it is, this precipitates a much larger discussion about where you should store your dried lovage.'

Miriam set the glove aside. Smoothed flat. Figurines beside it.

'But we consider golems to be thinking things. Even though they are, in a sense, objects that contain objects. It's just that, from our perspective, one object inside the other has very careful words written on it.'

Miriam stacked the two halves of the broken figurine. 'Where did you get these?' The two pieces didn't fit properly. It wasn't a clean break.

Koz flexed his exposed right hand. 'I had a friend. When I was young. My mother made these for me, with clay from the river.' Koz frowned. Not recognising his own voice. 'Because my friend and I were so alike. We were very close.'

'Didn't you have any siblings?' Miriam balanced broken clay with steady hands.

'Yes, I'm sorry to say. Two brothers.'

Adara paid them no heed. 'From our perspective, the same is true of us. We feel like we're full of words. Like if one of us tumbled and our head fell open, the library of our lives would rush out. But you can't read my blood any more than you can read Pesach's clay. Just because the scroll of the golem is in a language I understand, that doesn't mean I understand golems. The perspective of golems is for golems alone. You can't ask if I can know his thoughts, because you can't ask if I can know anybody's. A written thought, a spoken thought. *Neither of these are thoughts themselves.*'

Miriam leaned down to the broken figurine. A tiny figure of a boy, features worn away. Miriam closed her eyes. Whispering. Koz leaned close. Squinting in the candlelight.

Adara rattled the box. 'We have more power, when we write on a scroll, then we do when we grow a baby inside us. But both things have... guidelines. Things that work, things that don't. Clay isn't as malleable as you might think. We're not making copies of ourselves. Nor are we making perfect servants, though servants are what they've become. It's no different to breeding animals! And we ride animals, cage them. Kill them for food. And we're not worried about what *they* think.' Bitter laughter. 'When people ask what a golem

could be thinking, they're not worried *if* golems think. They're worried *what* they think. About *you*.'

Miriam stopped whispering. Let go of the figurine. For a moment, it seemed whole. Tiny featureless boy standing tall. Then the broken figure toppled. Koz let out a ragged breath.

Miriam lay Kozilek's clay fingers atop the glove. Pushed it back across the table.

Koz didn't pick it up. He cleared his throat. 'Okay, Adara. I think I understand. You can't write a golem just like a book. And golems think with both scroll and clay. But what about the likho?'

Adara shrugged. 'My guess? My *human* guess? Barely awake. Closer to insects than livestock.'

Miriam clasped her hands on her lap, sighing. 'We can't even imagine. To have one's awareness, one's mind, shifted and changed like that? To become someone both old and new? Who knows how it feels. How much they do, or don't, understand of it.'

Adara played with the lovenge box. 'We did the best we could with Pesach. At least we can ask him what he thinks. He was... a complex job. But he's a quick learner. I made sure of it. He recognises patterns. Makes inferential leaps. Senses things that humans can't even imagine! Like in the old stories. He's not perfect, but he's not trying to be. That's the damning thing about what Prague golems dream about on the Shabbat. Striving for some ridiculous ideal.' She pushed the box away. Tossed her hair back, weaving it up behind her head. Jabbing long pins into it. 'No, Pesach isn't perfect. But he is a result of who he used to be. We did the best we could with the resources we were given.'

Koz looked at Pesach's hands. Twitching. Mirroring Adara's movements. Terracotta complexion glowing by candlelight. New scroll or not, he didn't look like a pot-shop golem. He looked like an attentive child.

Koz grabbed the box. Took out the note. 'You'll have to forgive me. I'm having trouble believing that you two — *just* you two — took a regular golem, a rough lump of clay, and turned it into that.'

'Why?' Adara's eyes flamed bright. 'Because I'm too young? Because I'm a woman?'

'Because Pesach isn't like the other stolen miracles of Prague.' Koz shepherded the lovenge leaves back into their box. 'There's only ever been one golem like him before. And

Yossele was unprecedented. Made by holy hands. And now, the Maharal is gone.’ Koz laid the closed box on the table between them. ‘Unless it was the Maharal who taught you how to do this.’

Adara stood, with difficulty. Legs unstable. She raised a hand. Unblinking, she slapped the lovage box out of Koz’s hands. Lovage erupted across the room. A summer shower of dried leaves. Candlelight roaring in Adara’s gaze. And then, holding the wall for support, Adara stomped out of the room.

Koz closed his mouth. Pesach rose, walked over to the spilled herbs. Began picking up each leaf, one by one.

Miriam pinched the bridge of her nose. Eyes flaring again. An old pain. ‘We *told* you. We weren’t sent by the Maharal. Everyone knows he’s gone.’

Koz righted the lovage box. ‘Nobody knows. He’s just missing.’

‘For *fourteen years*.’ Miriam rubbed her temples. ‘Before the Maharal left Prague, he said that he knew the face of Death. What guises it took. He knew how to run. How to hide. And yet within four years of arriving in Poznań, he and his family were gone. What does that tell you?’

‘And where in Poland are you from?’

Adara, from outside the room. Kicking her heel against the wall. ‘Why should we tell you? It’s not like you’ll believe us!’

Miriam stood. ‘We had hoped you would trust us. We only came to you because of your... reputation.’ Her soulful eyes black as coal.

‘Of course.’ Koz felt his cheeks redden further. ‘My reputation.’

They watched each other. A long moment. Koz looked away.

Miriam walked to the door. ‘We heard you defeated Edward Kelley.’

‘Yes.’

‘Admirable. Clever, even. But a foolish thing, perhaps, to base our trust on.’ Miriam pulled her woollen cloak tight. ‘We’ll be on our way. Come, Pesach.’

Pesach stood. Fingertips bristling with herbs. He walked to Miriam.

‘Wait.’ Koz stood. Right arm extended. Grasping.

‘Yes?’

Koz swayed. Head swimming from the quick rise. 'I'm sorry.' Chewed his cracked lips. 'I'll believe you. I *do* believe you. I'm sorry I didn't before.'

Adara stopped kicking the wall. Called out. 'Prove it.'

'Stay here. Don't go.' Koz leaned on the table. White Lion swaying around him in an unseen tide. 'Check Pesach's scroll here.'

Adara leaned into the room. 'Nice try. You don't get to watch.'

'I don't need to. I trust you. Our rooms are yours.' Samuel the Younger's yellow circle. Dotted with blood. 'Jewish Town might not be safe.'

'Isn't it?' Miriam smiled. 'Thank you. We have our own place to stay, outside of Jewish Town. And our own ways of getting about. But... yes. We will check Pesach here. Before we leave.' She motioned to the golem. 'Pesach. Kindly put our friend to bed. He needs it.'

Pesach picked up Koz. Cradling him. Twice in one day. Koz turned back to the two women. Lit from behind, they were phantasms. Blurring. Turning away from him.

'Adara.'

The young woman exhaled heavily. 'What.'

'You said... you said golems dream on the Shabbat.'

Pesach carried Koz to his musty bedroom. Adara called out after them. A snide drawl.

'Oh, yes! It's a story you know quite well, I'm sure. If you've read the works of the Tzemach David. On the Shabbat, golems dream little stories about the adventures of Yossele.'

Chapter 14

Morning. Sleep hadn't been difficult, at first. Koz sat at the kitchen table in the White Lion, choking down the last of the bread. Pesach seated across from him. Expectant? Resigned? Impatient? No breakfast for his golem friend. Barrel chest full of brimstone and green vitriol. All he would ever need.

Koz chugged gritty fountain water. He had peeked into the kitchen late last night. Checking on Pesach. The golem had been ringed with candles, prostrate. Rigid. Head open. Adara spooling through his scroll. Tapping at it with a long pin, or perhaps a quill. Tiny symbols, neat. Precise. Miriam had been turning Pesach's limbs. Pinching his clay flesh. Whispering to it.

Koz snuck away. If they heard him, they didn't show it. In the morning they were gone. Leaving Pesach at the table. Along with Koz's two clay figurines. Intricate as the day they were sculpted. Pristine. Two tiny boys, smiling, almost identical. Whole.

Koz finished his breakfast. Donned his glove, wiggling his four fingers, his thumb. Grabbed his cane. Donned his cloak. Still no sign of Roder. Koz shrugged away thoughts of his friend. Could he really trust someone who willingly had the name Matthias spooled inside their head? What was Roder thinking with?

When Koz headed downstairs and opened the front door, something waited for him on the doorstep.

A dark lump. The size of Pesach's palm. Thick. Gnarled and bristled. Like a curved hunk of shit, but full of hair.

Koz poked the strange offering with his cane. The lump rolled over easily. Light.

A gem had been pressed into it. Black garnet.

Koz looked up. Old Town Square was mostly vacant. Koz turned, knowing Pesach was behind him. That now familiar silence. A change of pressure in the air.

‘It seems we’ve been summoned.’

Pesach nodded.

They left Old Town square quickly. Koz’s eyes avoided the empty execution stage. No heads on spikes, not here. Not yet.

Old Town streets. Pesach walking in step beside Koz, Koz slinking with his hand up to avoid the likho. Sun brewed the air into a lukewarm gruel. Dark clouds crept along the western horizon. An ill-wind threatening rain. People scurried, furtive. Fighting through the humidity. Seeking shelter. Bridge Street felt spacious. Like Vorel’s mourning prayer at Týn.

New Town. Dead Horse Square. *The Garnet of Night*.

Lang had returned. The nachtkrapp leaned against *The Garnet*’s wall. Black-clad, rakish. Villain in repose. Cleaning his nails with a dagger. Lang gestured a greeting, flippant. Pesach reciprocated. Lang smiled. Koz did neither.

Lang, casual. ‘You enjoy my gift?’ Eyes black-rimmed, bloodshot. Tense.

‘Which one?’ Koz thumbed his safety catch. ‘Chittusi sent me a little something. But I have to say, it felt like it was from you.’

‘No idea what you’re talking about.’ Lang was too practiced a liar. Impossible to know.

‘Then let’s talk about what you left at my door. A lump of hair. With a gem in it.’

‘Neither of which were easy to get.’ Lang pointed inside *The Garnet* with his dagger.

Koz scoffed. ‘You didn’t.’ But he definitely had.

‘Don’t be such an old hen! Some cheap nadler-carts only have one eye. And they travel all over Prague! This pot-shop stitchjob only needs to bring people beer. Simple.’ Lang smirked. Sensing Koz’s anger. ‘I can always try and ram it back in. I’m sure it still fits.’

Koz fetched the black garnet from his pouch. Handed it to Pesach. ‘Fix it.’ Pesach walked into the ale house. Lang applauded his exit.

Koz poked Lang in the chest with his cane. He wheezed. Dropped his dagger.

‘Where were you yesterday, Lang?’

‘Indisposed.’ He scooped up his dagger, grinning. ‘I’m not at your beck and call, Collector. Count yourself lucky that I chose to see you today. And that I summoned you with so valuable a gift.’

Koz held Lang’s gaze.

Lang frowned. ‘The bezoar.’

Koz gave him nothing. No work, no pastry.

For once, Lang blinked first. ‘You have no idea, do you?’ Raised his eyebrows.

Incredulous. ‘What did you think it was?’

‘Hair. Shit. The calling card of Philip Lang.’

‘Do you know what a bezoar *is*?’

‘No. And it’s too late to inspect it now.’

Lang spasmed. ‘*You threw it away?*’

Koz didn’t bother hiding his pleasure. Lang turned and swung at the wall with his dagger hand. As though he meant to stab the ale house. But instead he punched the wall, once, twice. Then he rounded on Kozilek.

‘That thing was *priceless*! It —’

Lang gulped. The tip of Kozilek’s rapier rested against Lang’s stubbled throat.

Koz, unblinking. Lang swallowed. Careful.

‘Koz. It was a *bezoar*. Precious. From Rudolf’s *Kunstammer*. Cut out of the stomach of a unicorn. An antidote for all known poisons.’

‘Philip. It was a lump of hair.’

‘It was both.’ Lang swayed on his feet. Koz drank in this precious moment. Better than any ale.

When Lang looked ready to drop, Koz lowered his rapier. Sheathed it. Lang breathed out.

‘Wasted.’ Lang rubbed his neck. Muttering. ‘*Wasted.*’ Checked his hand for blood. ‘I don’t understand you anymore. You’re no fun since you stopped drinking. Whatever you’re taking as medicine now, it’s killing me. You’ve never been more boring.’

‘The ins and outs, Lang. Now.’

Lang leered at Koz. Hunted around his pockets. Performative. He seemed scattered. Playing for time?

Koz tapped the ground with his cane. 'The other day. What kept you?'

'This map of ins and outs wasn't easy to get, thank you very much. Nachtkrapps are supposed to burn their work orders, but they rarely do. Laziness. They were reminded to, this time.' Lang produced a folded piece of paper. 'I had to pilfer this direct from the Castle. Right under Jupiter's nose.'

'You're a base rook who knows how to creep about the Castle better than anyone.'

'So?'

'So. What *actually* kept you?'

Lang winked. 'A lady.'

Koz snatched the work order. Unfolded it. 'I shouldn't be surprised. I wouldn't want to keep Vorel waiting either.'

A hand drawn map of Old Town. Precise, but artful. Circles on the corners of buildings, on the middle. Busy streets. Alleys. Likho everywhere.

All outs. No ins. No scrolls left in any likho Wednesday night, Thursday morning. The time of the blood libel.

Koz realised Lang was laughing. Leaning on his knees, shaking with mirth. Koz folded up the note. 'Is this a trick? What's so funny?'

'Vorel! Of *all* the people!'

Koz swatted at Lang's shin. Lang danced away, still laughing. Koz fumed. 'You weren't with Vorel the night of the Old Town outs?'

'You mean the night of the blood libel?' Lang whooped. 'No. I wasn't with Vorel. Not that I wouldn't, if she offered. But she won't. The freedom of being a widow has changed her tune.' Lang patted his codpiece. 'I have entirely the wrong equipment.'

Pesach returned. Ale house golem in tow. Caught in the gravity of Pesach's stride. Counterfeit Guild mark on its chest for all to see. Here, in New Town, outside Vorel's grip. It swept two midnight eyes over Koz and Lang.

Koz adjusted his cloak. 'Who where you with then?'

'That's my business, not yours.' Protective. 'I don't want word getting out.'

'You sure you were with a woman? You sure you weren't meeting with your Hominem Mundi friends at the Lesser Town docks?'

Lang kept his smile. 'This is what I get for quitting smoking.' Eyes sharpening. 'That was an old note, Koz. And none of your concern.'

'Why?'

'Because it's no longer any of mine. They're not my friends anymore.'

'You? Can't imagine why.'

Lang flicked his wrist. Irritated. 'They're asking for it now. Surely you've noticed. Stirring trouble was one thing... and for me, a profitable thing at that. But Hominem Mundi overplayed their hand. Yeah, I went to the Lesser Town docks when they invited me. Last year. But the Castle got there first. Sent the Knights of the Golden Fleece after them, if you can believe it.'

'The Golden Fleece?' Koz laughed. Lang's face darkened. 'Isn't that for nobles? People who fantasise about the glory of battle?' Lang didn't correct him. 'So you never made it to Ústí? **M** seemed eager to congratulate you. Matthias.'

'Yes, *Matthias*, well done.' Lang looked away, feigning indifference. 'Hominem Mundi isn't long for this world. From a Jesuit cellar to the miserable streets, the paranoid few inciting the slighted many. People do so *love* to be angry. Your old friend Scotta especially. But he's just another mouthpiece. And golems aren't going anywhere. It's going to take more than a lucky swing of a hammer to convince Prague of that.' Lang lured the ale house golem over with a cruel finger. 'Let me show you the great threat that the common people of Hominem Mundi are worried about.'

Lang produced his dagger with a flourish. Pointed it at the black glint of the golem's eyes. It watched without moving.

Koz raised his cane. 'That's enough.'

Lang sheathed his dagger. Clicked his fingers at the golem. 'Beers. Three. Now.'

The golem left. Lang capered, bowing. '*That*. That is the great threat Hominem Mundi fears! Something that stands still when you poke its eye out. A Vyšehrad slave that takes the jobs of useless people without complaint.'

'You're not worried a golem could replace you?'

Lang snorted. 'Worry about yourself, Collector. There's precious little you're good for, and a golem can do it all. Golems are the one good thing those usurious swine in Jewish Town have ever brought into this world.'

Pesach strode forward. Lang shrunk back, skittering. Terrified.

Koz clicked his fingers. Pesach stopped.

Lang straightened up. Composed himself. Flung a rude gesture at Pesach. 'Don't think you won't be replaced either, friend.'

Koz gave Pesach's bicep an affectionate squeeze. 'So what's the plan now, Lang? If you're not helping Matthias anymore, how do you expect to side with the Castle if he takes over?'

'Trust me, he owes me.' Lang stretched. A languorous rodent. 'Matthias, you can trust. He's craftier than Rudolf. Rudolf's too diplomatic with religion. With Bohemia. Catholics, Protestants, Jews. He wants everyone to get along. The Vatican hates it. But Rudolf won't back down on golems, and that position can't last. Not with the people, not forever. Not after the beautiful mess that was Krocín Fountain.' Lang leered. A greasy wink.

Koz shook his head. 'All this. Hominem Mundi. Just to get back in that inner circle.'

'Oh! The work I've put in!' Lang flicked a limp hand. Tattered. Wrung out. 'It's such a hard circle to be in. The people I had to do away with when I was Rudolf's valet. It began practically the moment I started, back in '01! Just to get Rudolf's ear. Just to win the favour of the right people.' Chuckling. A death rattle. 'I even tricked Rudolf into killing General Russwurm, I tell you that? Loyal. War hero. Very loud, such an odious man. *So tiresome.* Then Russwurm got himself into a duel, which Rudolf hates. Very illegal, duels. It was the perfect opportunity. I convinced Rudolf to have his dear friend Russwurm executed for it. Rudolf changed his mind, of course. Last minute. Ever the sentimental. So I intercepted Rudolf's pardon. A late pardon, for the late Russwurm.'

'Why?'

'Russwurm was in my way. And I've killed much more palatable people for less.' Lang stepped away from the wall. 'Does it matter? Rudolf's a fool. Without me, who is there now to protect him from himself?'

The ale house golem returned, holding three beers. Lang clapped.

'Come on, Koz. You used to have spirit! When we met in Tirol, we used to drink, and sing, and dance Ambrass Castle dead. And we can do all that again, when Matthias gets here! He can find you real work. Maybe your friend as well. So let's get started now, eh? Let's drink to a new Prague.'

Lang seized a beer.

There was a sound. A familiar crack, a giant whip sundering a mountain of stone.

Lang spasmed. There was blood.

Koz cried out. Silent as the golem's footsteps.

Lang stumbled back. Clutched his neck. Tankard striking the cobblestones, spraying beer. Blood pissed out from between Lang's fingers. Distant onlookers screamed.

Pesach had turned, looking at the Guild statuary building across Dead Horse Square. Balcony, second story. Shrouded figure. Something long in their hands. Dark wood. Polished metal. Arquebus. Lifting it from the railing where it had rested.

Lang reached for the wall, tripped. Fell. Blood shone bright on his black doublet.

He was dead. His eyes darted about. Desperate. Hand on his neck trying to dam the tide of lifeblood. But it was over. Philip Lang was dead.

Koz pushed the ale house golem towards Lang. 'Put your hand on his neck. Stop the bleeding. *Save him.*'

The pot-shop creature knelt over Lang. Blank eyes glinting like a clear night sky. Philip mewled. Pleading sounds.

Koz rounded on Pesach. Figure on the balcony, gone. 'Get us up there! *Now!*'

Pesach lifted Koz into his arms. Koz's cane slipped. Clattered to the ground. He squirmed, but Pesach was carrying him, crossing the square with colossal strides. And then, with a thunderous lurch, they were airborne.

They landed on the balcony, Koz screaming. Cracks ran up the front of the building, separating two sgraffito lovers. Koz twisted. Tumbled out of Pesach's hands. Door in front of them, open. Koz scrambled up, ran through. Box stepping room to room. Following the sounds of movement.

Shrouded figure. Corner room. His back to the window. Fine dark cloak. Young. Poised, even in terror. Reeking of nobility. He finished reloading. Held the heavy arquebus up before him.

'Get back!' French accent. Hands quaking. Tip of the weapon weaving through the air. Koz raised his hands. No cane.

Koz felt silence behind him. Pointed with his chin.

'Pesach. Disarm him.'

Pesach stepped in. Hand outstretched. The tiny assassin hauled the heavy arquebus up. Fired. Vivid flash. Point blank range. Then it clattered to the ground, and Pesach was holding the assassin up by his neck.

The assassin squawked, fighting for air. He looked to Koz with desperate eyes.

Shouts, from the ground floor. Guards arriving. Heading for the stairs.

Koz shook his head. 'Pesach?' Philip Lang. Bleeding to death against the front wall of *The Garnet*. 'Punch this man.'

Pesach readied a fist. Assassin wriggling in his grip. Necklace jumping free of his black tunic. Blocky golden chain, flat rectangular links. It caught on Pesach's finger. The assassin began to worm his way free.

Pesach swung. Arm like a battering ram. Koz opened his mouth, but it was too late.

The young man screamed. It was very brief. It stopped the moment he landed headfirst in the alley below.



As when a wave that has long flowed along steep banks
will finally contain itself on rough land,
similarly the Parasite hanging on an uncertain breeze
explores all pathways as he goes along,
seeking where mischief lies in the inmost parts of the mind,
and proceeds as far as the channels of the heart.

'A flatterer' by Elizabeth Jane Weston [II.41]

There's diversity within me,
Though despite my diverse aspect, I am one.
That diversity of mine
Renders faithfully and truly
Diverse things as they are...
Though my aspect may be monstrous,
I bear noble traits within...
Hiding thus my kingly image.
Tell me now if you are willing
To discern what I can conceal:
Then my soul I will reveal.

*Excerpt of 'Vertumnus' by Don Gregorio Comanini, a poem dedicated to a painting of
the same name by Giuseppe Arcimboldo*

A Very Amazing Tale about a Blood Libel by the Priest Thaddeus

This is a story about Thaddeus. The greatest story of all, perhaps. That famous story of 1585. The year of Thaddeus' final plan against the Maharal. The plan which would be his downfall.

There is a church, on the border of Jewish Town. The Church of God's Mercy. Built in the 14th century, it has undergone many repairs, changed many hands since the Hussite Wars. Today, it is in the hands of the Benedictine convent. But in 1585, the Church of God's Mercy was between hands. A holy ruin, stable but empty. A place for the homeless poor to rest their weary heads.

The beggars of Prague never entered the cellars of the Church of God's Mercy. The story goes that it was filled with demons, vengeful spectres whose outward breath was an ill wind, and whose violent will manifested in howling beasts and falling stones.

Perhaps it would interest you to know how superstition is formed? How a draughty cellar, a stray dog and a collapsing ceiling can become the supernatural? How phenomena are explained through stories? How beliefs are formed? How the human mind is only conscious because it tells stories to itself, about itself?

No. No, I thought not.

So the cellars of the Church of God's Mercy remained empty, unexplored. A slumbering evil beneath the restless poor who had no choice but to call this empty shell their home.

And thus it was here that Thaddeus thought to lay a trap.

At this time, Thaddeus lived in Old Town, in the House of the Green Mound. While exploring his own cellar — Thaddeus was an avid collector of fine wines — he happened across a secret passage. There are secret passages, connected cellars and hallways running underneath all of Prague, halted only by the river. Believe me. You know only of a few.

Once he discovered that he could reach the Church of God's Mercy without being detected, Thaddeus concocted a plan. First, Thaddeus murdered the young son of a servant who he felt had wronged him, cornering the boy and slitting his throat, sly and quick. Then he drained the boy's blood into labelled flasks, and stashed the young boy's body and blood in a closet, deep in the cellar of the Church of God's Mercy. Safe in the knowledge that no one would happen across it. A sound plan.

Thaddeus then returned home, awaiting word from his servant about his missing son. Waiting for his chance to spin the truth into a story, a story about how the servant's son was last seen talking with someone bearing the yellow circle. A crafty Jew, asking the boy if he would like to see the Church of God's Mercy.

Yes. Yes, a sound plan.

But not sound enough to thwart the golem of Prague.

It is said that the Maharal came upon knowledge of Thaddeus' plan through a dream. How can Gans have disputed this — who among us but the Maharal himself has seen the contents of the Maharal's dreams? But perhaps it would interest you to know who first had the dream, predicting Thaddeus' crimes? Who laid hands of clay upon the earth, as if in prayer, and heard what had transpired beneath the cobbled skin of Old Town?

No. No, I thought not.

The results are the same regardless.

Seized by a midnight vision, the Maharal bolted out of bed, seeking to thwart Thaddeus' plan. He travelled to the Church of God's Mercy that very night, aflame with righteous fury, Avrohom and Yossele in tow. Yossele was immune to any harm that the Maharal could conceive of, including demons. No ill wind or howling beast or falling stone could slow the divine purpose of the golem.

The three of them found a disused entrance into the cellar, and descended it quietly, eager not to wake the beggars above. Avrohom and the Maharal held lit tapers aloft, clutching them tightly as a fetid draft made the flames flicker. Praying fervently as beasts howled from the depths of the cellar before them.

In time, the signs of the demons abated. Convinced that their convictions and prayer were holding the demons at bay, but still fearing falling rocks, the Maharal ordered Yossele to proceed. He alone would go on ahead. He alone would find what Thaddeus did not want them to find.

Unimpeded, Yossele found the closet. Thaddeus' murderous secret. Yossele scooped the contents of the closet up in his massive embrace — the dead child, the flasks — and took it all to the Maharal.

The Maharal was no fool. He knew an opportunity when he saw one. To put an end to the feud between Thaddeus and the Jews of Prague. To protect them at last from his nemesis. The nemesis of all the Jews of Bohemia.

The Maharal bade Avrohom to take the flasks of blood from Yossele. He told the old shamesh to find an unseen place to dispose of them. To dig a hole and smash the flasks into the earth, burying them forever.

And then he turned to Yossele. The corpse of the child limp in the golem's arms.

Find his cellar, he told the golem. Find Thaddeus' cellar and hide the boy there. Hide him well. And we will watch as Thaddeus reaps his own ruin.

The next day, when Thaddeus' servant asked him if he had seen his boy, Thaddeus spun his practised lie. As one subjected to Thaddeus' constant diatribes, the servant was predisposed to believe in the villainy of Jews, and so to the Old Town guards they went. Thaddeus accompanied his servant, making sure that every guard on duty knew about the Church of God's Mercy.

But they found nothing. Even in the closet, which Thaddeus had steered them towards with clever words. A master manipulator of simple men. Thaddeus' servant, who had been incited by his master to an extreme state of worry, began to lash out at the guards, demanding that his son be found.

Thaddeus worried also. What could possibly have gone wrong?

But before he could plan his next move in the game he had created, the game was brought to a close. That afternoon, Thaddeus' maid found the dead boy in the cellar of the House of the Green Mound.

Thaddeus was arrested. He blamed the Jews — they had driven him to it, with their clever ways. He was only trying to demonstrate what they are capable of. To bring their crimes into the light.

He was found guilty of murder. Locked away in the bowels of the Castle. Tortured, they say. And finally, slippery to the last, exiled. Cast out of Bohemia and ordered never to return.

Thaddeus. An avid study of the human mind. Staunch Catholic. Connoisseur of fine wines. Kind, to those close to him. Wise beyond his years. Edward Kelley himself demonstrated

transmutations to Thaddeus in his own home, the House of the Green Mound. Where Kelley himself would later live.

Thaddeus. Conspirator and murderer. A man brought to justice by the Maharal and his faithful golem Yossele.

But what is justice? Is it the broken feet of the porter? Is it the incarceration of a hated foe? Is it death?

Read to me the definition of justice, and then perform justice in the world, and I will show you how they can never be exactly the same. Ideas are experienced like lessons learned. Fresh and new every time. Unique.

But similar. A shared similarity. Justice is not absolute. These abstract ideas are broad dreams, and broad dreams only ever occur in the specific. Even in its broadness, in its promise of equality, justice remains individual.

To each their own.

Oh, I'm sorry. Those chains look tight.

Would you like me to loosen them for you?

Chapter 15

Afternoon. Night. Koz couldn't tell.

The Old Town Hall cells were clean. Underground, no windows. Grey stone. Grey bars. Grubby torchlight. Cool shadows, like a cellar pantry. Aboveground, spitting distance from here, Koz's front door would be warm to the touch.

So would the execution stage.

Back at Dead Horse Square, the New Town guards who rushed to the statuary had been predictable. Shouting instead of listening. Koz made sure Pesach was compliant. They were both manacled. Taken outside.

Not long after, Nedbálek and Doležal had arrived. Old Town never forgot a grudge.

In his cell, Koz curled in on himself. Crimson mandilion like a funeral shroud. Nursing tender bruises. One eye swollen shut. A canvas of vengeful fists and feet. The guards had been wily enough not to harm someone as large as Pesach. Double the attention for Koz. They'd searched them both thoroughly, after. Took everything. Even Kozilek's cane.

All this work. Just to be a prisoner.

Pesach sat in the cell across from Kozilek. Hulking body stilled. Killer under lock and key. Old Town had them now. Prague had them. Trapped in a hole from which no light escapes.

There was something in the golem's hand. Dented from where the arquebus shot had struck it. Pesach pushed it around his elephantine palm with a mountainous finger. Glinting eyes fixated. Calculating? Confounded? Resolute?

Pesach saw Koz watching him. Turned his hand. A rotating celestial body. Light dawned at its centre. It was the pendant from the assassin's gold necklace, set in Pesach's

palm as if it had never left. The golem had kept it from the guards somehow. A rendition in gold of a tiny ram, held aloft by a rope strung under its belly.

A dull click. The cell block door. Key in a lock. Heavy hinge grinding, door opening. Pesach closed his fist around the pendant. Opened it. The pendant was gone.

Vorel entered. Black dress, neck to toe. No veil. No jewelry. Lantern held high. Koz's cane in the other hand. She shut and locked the cell block door behind her. Dragged a stool in front of Kozilek's cell. Set the lantern beside it. Sat down on the stool, facing Koz. Cell keys and cane arranged on her lap. Patient. Composed. Her back to Pesach's cell.

Koz stayed curled in his corner.

Vorel watched him. 'Nowhere left to run, Kozilek.' A strident whisper.

Koz curled tighter.

'I hope these cells are to your liking. You're never leaving.' Dry laughter. 'Unless you'd prefer Rudolf's new execution stage.'

Koz scrunched his stinging eyes shut.

'I haven't decided yet what to do with your friend.'

Koz opened his eyes. Widow still facing him. Eyes devouring his.

Koz rose, slow. Limped to the bars. Vorel frowned. Lifted the lantern from beside her. Closer to the light, she could see his bruises. His crooked nose. His swollen eye.

She raised an eyebrow. Opened the lantern. Blew it out. Prison gloom enveloped them. 'There. You look *much* better now.'

The guttering glow of the torch by the door seeped into the darkness. Vorel's almond eyes drank in the flimsy light. Powdered lines of her smile shining.

Koz turned his head. Cleared a gummy throat. Spat blood. 'I look better than Philip.'

The slightest flinch. 'Yes. A shame, what happened to him.'

'I happened to him. But I also killed Lang's killer.' Koz leaned against the bars. 'I punched the man, he tripped. Right out the window. The only crime my friend here committed was to spend time in my company.'

'A pitiable crime, in and of itself.' Vorel appraised Koz's spidery frame. 'So it was your doing? I knew you cherished violence over words. But this?'

'Oh, I'm capable. Lots of practice. Maisel doesn't like it, but I am a debt collector. Some people refuse to pay.'

A twist of her lip. 'You run errands for a sad old ghost. Wilfully ignoring the coming exorcism. Well, no longer.'

Koz gripped the bars. 'Did I kill a friend of yours? The assassin looked your type. *Noble*. He shot Lang through the neck without so much as looking him in the eye.' Koz sneered down at her. 'Is that why I'm here? Because I punched a French aristocrat?'

'Out a *window*. You're here because you killed someone.'

'But why here? The New Town Hall has cells.'

Vorel didn't reply. Koz felt his battered legs giving way. He gripped the bars, eased himself down. Sat before the burgher on the brushed stone floor. Her rounded, sable form eclipsed the golem completely.

Koz crossed his legs. 'You don't seem too wounded about his death.'

'The aristocrat?'

'Lang. You two seemed familiar.'

A warm smile. Brief. 'Lang and I met when Russwurm was executed here outside the Old Town Hall. Quite an event, in its day.'

'Lang engineered that. Had Russwurm killed.' Koz peered about. Theatrical. 'Where was Lang's cell, I wonder?'

'Russwurm was a rapist.' Vorel picked at a loose thread. 'That duel Russwurm was executed for? It happened because somebody tried to stop him. Now, was that Lang's only motive for having him killed?' Smoothing the fabric of her dress. 'Certainly not. Russwurm compromised Lang's power over Rudolf. But I respected Lang for his actions. And as it turned out, we had mutual friends. Of a sort. And the occasional shared interest, over the years.'

'The people of the world?'

Vorel arched a slender eyebrow. 'I have no time for that man Scotta, or his rabble.'

'I'm not talking about the Old Town protests. I know there's more to it than that. Where do *Hominem Mundi* meet? Lang mentioned a Jesuit cellar.'

'Why? You'll never attend.' Vorel toyed with the keys. 'Besides. Why would I know?'

'You're Irenka Vorel.'

She smiled at this. Perched an upright finger across her closed mouth. 'If you know who I am, you know how well I know my territory. But even inside my own territory, I would never dream of going to the Church of the Holy Saviour in the Klementinum.'

Looking down at Koz. Comfortable on her little stool. Waiting to be thanked for the crumbs she dropped.

Koz snorted. Tasted coppery phlegm. 'You mentioned mutual friends with Lang. Matthias, I assume. You really think he'll be any better than Rudolf?'

She shook her head. 'Again, your irreligious ignorance shows through. Matthias has shown himself to be an ally to Protestants. In Austria, in Hungary.'

'He's a Habsburg. Catholic to the core.'

'Rudolf has proven that any core can be rotten. Matthias is a pragmatist. I trust him to know the truth about the Jews.'

'Which truth? The one you're peddling from the Maisel Synagogue?'

'So presumptuous!' Vorel gripped Koz's cane on her lap. Flicked the safety catch. 'Conflating motive with means. With opportunity.'

'You signed the order for the outs so the likho wouldn't see it. So Rudolf wouldn't know. And you're friendly with the Guild. With their lawyer, Johannes Leo. You're even enforcing Guild law on the Old Town streets, confiscating pot-shop golems.'

'I approved the outs for the likho that night out of courtesy. Out of reciprocity. I didn't ask questions, but why should I? My arrangement with the Golemsmith Guild is as transparent as it looks. If I help Vyšehrad remove golems from my streets, then there are less golems on my streets.'

'You're using them for more than that.' Koz tried to rattle the bars. 'How did you order the blood libel done? Was it like Thaddeus did it? How did you lure John away from his father?'

'A bold proposition. Murdering a man's son, and then making him complicit in concealing it.' Vorel cradled the cane's head. Inspecting the faded wood. 'What kind of *monster* could do that?'

Koz growled at her. 'Maisel is a good man. The prosperity of Jews isn't at the cost of Protestants. Things have improved. They were meant to improve. The Letter of Majesty—'

Vorel struck the bars hard with Koz's cane. 'Tell *that* to the Protestants who died at Krocín Fountain!' Another black and thunderous knell. White knuckles on spotted hands. 'Tell that to my *husband*.'

Ripples, in dark water. Something was floating to the top.

Vorel sat before him, clutching the cane's neck. Ready to swing it again.

Like a hammer.

Koz laughed. Leaned away from the bars. 'I'd love to talk to your husband, actually.' Watching the wary widow with one eye. 'We've got lots to talk about. Me and Mates Vorel. Tell you what, after you let me out of here, how about you show me where he's buried?'

She clenched her jaw. 'Is there *nothing* you love?'

'Dancing.' Koz tapped clay fingers against the bars of his cell. 'I used to love dancing.'

Vorel pressed her thumb against the cane's safety catch. Taking her measure of Koz. Imprisoned. Defenceless.

Then she smiled. Centred herself. Thumb leaving the catch. 'After I send my guards back in here, Kozilek, you'll never dance again.'

'You're not wrong.' Koz pressed his face against the bars. It hurt. 'Just do me a favour. You visit your husband. Talk to him. Go tell him that Kozilek knows who really caused the Riot of Krocín Fountain.'

Then Koz stood. Turned. Limped to the back of the cell. Slow. Leaned against the back wall.

Vorel's face was very still. Grey threads of hair drifted in an unseen breeze.

The widow's voice was hushed. '*Don't lie to me.*'

'I'm not.'

'What could you possibly know about Krocín Fountain?'

'Well. I can't speak to how literate your husband was.' Koz stroked his swollen nose. His blackened eye. Blood caked in moustache and beard. 'But I can tell you this. Lang knew Golem. It's based on Hebrew, which shouldn't surprise you. And Lang was getting paid to stir up violence. Paid by Matthias. His job was to turn people against the golems. Spread the word of Hominem Mundi.'

'No.'

‘Who knows what would have happened, if Mates Vorel hadn’t attacked a nadler-cart with a hammer that day? Maybe the stampede would have happened anyway. Lang was clever. He might have even put your husband up to it. We’ll never know.’ Koz adjusted his glove. Pulling it tight. ‘And we’d never have seen Lang again, if the Knights of the Golden Fleece hadn’t raided the Lesser Town docks. Lang only stopped being the right-hand of Matthias because he didn’t want to get chopped off at the wrist.’

Torchlight shimmered in the widow’s eyes. She blinked away tears.

Koz stepped forward. ‘Whatever Mates deserves, whatever condemnation is owed to him for his hatred of Jewish Town, he didn’t kill any Protestants on the day of the Letter of Majesty. Whatever that means to you.’ Koz reached through the bars. Vorel watched him reach for his cane. Still as a golem on the Shabbat. ‘Should Mates be buried in a pauper’s grave? I don’t know. But Lang does. It’s where he’ll be buried, for sure.’

Eager, Koz seized his cane. Lifted it. Pulled it quick into his cell. But Vorel’s gaze was elsewhere. Nowhere. Koz spared a look at Pesach. His handsome mask betrayed nothing.

Vorel broke the silence with a shudder. Let out a long-held breath. ‘Do you have proof?’ She undid her bun, wavy hair falling. The colour of her fortune.

‘Your thugs cleaned out my pockets. I had a note, addressed to Lang. From Matthias. Thanking Lang for sowing dissent. It must be Krocín Fountain. It’s the only thing that makes sense.’

‘So that’s what you want.’ Vorel’s eyes bore into his. ‘Credit for Lang’s death? Another Kelley?’

‘Today?’ Koz tapped the ground with his cane. ‘I’ll settle for the truth.’

‘You?’ A dark laugh. ‘Are you sure?’

‘Who set up the blood libel? Who killed John?’

Vorel shook her head. Limp hair fell in front of her face. Concealing it.

‘It wasn’t you, was it?’

Face-to-face with her. Trying to peer through Vorel’s new mourning veil. A better mask than the black one. He glimpsed ambivalent eyes, a twitching mouth. Cryptic as Pesach.

Vorel stood, quick. Gripping the iron keys. She inserted a key into the lock. Turned it. Koz felt the cell bars move under his hands.

Koz didn't step forward.

'I took a life.'

'You pursued an assassin.'

'To his death.'

'How long are assassins meant to live, do you think?' Vorel tilted her head. 'And how do you know the assassin's bullet wasn't meant for you?'

Koz swallowed.

Vorel unlocked Pesach's cell. Pesach stayed seated on the floor. They shared an inscrutable look.

Koz stepped out of his cell. Went to touch Vorel's shoulder. Hesitated. 'My friend... he had nothing to do with this. I'm the one that killed Lang's assassin.'

She didn't turn. 'Is your friend Jewish? He's not wearing his circle.'

'Never mind him. Your pillory couldn't fit him anyway.'

Suddenly, Vorel spun. Animated. 'I'll grant you both freedom. At a price.'

Koz froze. 'And if I refuse?'

Vorel said nothing. Koz gripped the hilt of his cane.

Finally, Vorel shook her head. 'You confuse me with Rudolf. Unlike our melancholic emperor, I *can* throw valuable things away. Sentiment is not one of my virtues.'

'You seem sentimental enough about Brahe's death.'

'I do, don't I?' Vorel pressed her hands together. Sucking air through her teeth. 'Perhaps... perhaps I'm wondering how such a clever man could meet such an ignoble end. Such a *suspicious* end. Perhaps I'm wondering how golems have improved in his wake, year after year, since 1601. During which time there has never again been a Royal Golemsmith.' Vorel parted her hands genially. 'Or perhaps... I'm sentimental after all.'

Koz tensed. He saw the door, the keys. Pesach behind her, at the ready. The way out was clear if he chose to strike.

But here *he* stood, cane in hand. Not a prisoner. Something else, if he took Vorel's price for freedom.

But the blood libel wasn't down here. Truth wasn't in a cell. It was out there.

'Fine.' Koz pulled himself up. Tried to stand tall. 'Hire me. The Collector is yours.'

Vorel clapped, once. 'There's a young man. Edvard. Flaxen hair, brown eyes. Scarred left eyebrow.' Eyes fastened on Koz, through a mass of writhing silver snakes. Counting what he was worth. 'Edvard owes me a single tolar.'

Koz frowned. 'A missive golem costs more than that.'

'You'd best hurry.' Vorel walked away from the cells, over to the door. Light steps. Playful. 'The sun will be setting soon. Leave it any longer, and I fear you won't find him at all.'

Koz reached into Pesach's cell. Guided the giant to his feet. 'Where will we find him?'

'Your items will be returned, save what I need. Save the truth you have promised me.' Vorel hefted the keys. Paused. 'You'd like a nadler-cart fetched, I suspect. To take you to Golden Lane.'

'Edvard is in the *Castle*?'

'Of course. Edvard is a *proud* member of the Red Artillerymen.' Vorel unlocked the cell block door. Paused. 'I do hope we can get you and your friend a nadler-cart. It's getting harder to flag one down, these days. So many Rudolfine nadler-carts with covered cargo, shuttling to and fro. Castle to Vyšehrad. North and south, south and north. Have you noticed?'

'Have I?' Koz blinked. 'Wait, *Rudolfine* nadler-carts? Common people like me can't ride in those. They don't even accept tolar. They're not for the likes of us.'

'Aren't they?' She might have been smiling. 'Who are they for then?' She moved to leave.

'Vorel. Why are you asking me to do this?'

The widow paused at the portal's edge. Faced Koz. An impenetrable argent mask.

'You're like Lang. Opportunistic. Ruthless. I'm willing to wager a single tolar that you'll meet a similar fate.'

Koz shook his head. 'I'm not like Lang.'

'Aren't you?' Koz caught glimpses of Vorel's grim rictus in the guttering flame. She pulled the torch from the wall, the only light. Pointed its coruscating head at Pesach. 'Jewish man. Ask your friend Kozilek something for me! Ask him what the history books say about

Karl and Helfrich Kozlowski. Ask him what happened in 1589. It would have been Jewish year 349, in the minor era. In the major era, the year 5349. Isn't that right, Koz?'

And then Vorel was gone. Through the door, disappearing. Torch glow fading away.

Koz, frozen.

Forcing his head to turn. Forcing his eyes to meet those of the golem.

Pesach stared back. His silence filling the cells with encroaching darkness.

Chapter 16

Koz and Pesach arrived at the Castle's eastern gate. Nadler-cart paid for by Vorel. The paltry cost of freedom. So far.

The sun was threatening to set. Sloping away from the Castle, rooftops in Lesser Town and Hradčany glowed with amber light. All the way to the Hunger Wall. The border of Prague. The Castle guards at the eastern gate were the same from Friday morning two days ago. That ill-fated visit to Vladislav Hall. Westonia's cry for the death of all Jews still echoed in Koz's battered ears. But if the guards recognised Koz and Pesach, they gave no sign. They knew that everyone trickling inside the Castle was going to the same place.

The northern wall of the Castle was bolstered by three defensive towers. Powder Tower to the west. White Tower in the middle. Daliborka, with its cursed prison oubliette, to the east. Between Powder Tower and Daliborka, there ran a narrow lane. Home to Rudolf's fusiliers. The Red Artillerymen. By sunset, it was a strip of debauched revelry. A series of iniquitous archways nestled like cankers inside the Castle's stone lips.

Golden Lane.

Koz was thankful for his smashed and clotted nose. He couldn't smell any of it. Everywhere, people were already clambering into their cups with gusto. Commoners and nobles, scattered performers. Singing, juggling. Pockets of off-duty guards hunched over stained tables. Rolling dice. Shuffling marked cards. Grey Castle guards and Red Artillerymen, smoking, gambling. Already drunk. No need for sideways glances. They could see the law from where they were sitting.

Koz limped through the narrow crowd, leaning hard on his cane. Pesach beside him. Golden Lane first got its name when rogue goldsmiths camped here, below the defensive

walkway. Renovating twenty-one recessed archways on the inside edge of the Castle wall. They sealed these recessed archways off, adding simple walls, with windows and doors overlooking the lane. Homes, all. The birds the goldsmiths kept as a warning for toxic fumes sang to one another. Filling the lane with song. Then Rudolf moved the Red Artillerymen in. His most valued fusiliers. Those that worked on the defensive walkway above called the holes below it their home. Every archway that didn't house Red Artillerymen became a tavern. Marching boots by daylight joined by intoxicated crooning by nightfall. All the evicted goldsmiths left behind was the name. Golden Lane.

Koz wove through the chaos, his skull a boiling cauldron. Worrying at his split lip with yellow teeth. Peering into groups of uniformed gamblers with one eye. The other still swollen shut. People looked away from Koz, concerned, disgusted. Koz ignored them. Myopically hunting for flaxen hair. Brown eyes. Scarred left eyebrow. But it was too crowded. Too dark. The lanterns lining Golden Lane gave off feeble yellow coroneae that dissipated as they rose above the Castle walls. Blue sky above already tainted by night. Fusiliers patrolled the umbral border, armed silhouettes marching to and fro. Featureless, disciplined. But blessedly imperfect. Human. And no likho here either.

Koz clung to Pesach. Pesach looked everywhere. Watching a maid perch her hips on a Castle guard's lap. Her mouth on his neck. Watching a bartender palm tolar from a slouched-over drunkard. They passed a droning red-nosed bard, grinding out a bawdy tune on a hurdy-gurdy. The burnished wood of his wheel fiddle dark like overbaked clay. Lit from above, every face became a mocking scowl.

'No sign of him.' Koz gripped Pesach's green tunic. Stood on tiptoe. Looked up and down Golden Lane. 'Huh. You're the only golem here. Must not be any fun to drink with.'

Pesach had nothing to say to that.

A leering dignitary bumped into them. Bouncing off Pesach, pushing Koz away. Braying with laughter. Crooked teeth purple with wine. Koz snarled. Swatted at him, missing. The dignitary tittered. Pesach watched him stumble away as Koz regained his balance.

'Thanks for the help.'

Pesach turned silently back to Koz.

'Do you only get up in arms when somebody badmouths your people?'

Nothing.

'Forget it.' Koz brushed himself off. Appraised Pesach's imposing bulk. 'Know what? If I can't rely on you, let's make it official. No more punches. No more choking people. No more axes. Next time somebody tries to hurt me, I want you to be nice. Give them a hug.'

Pesach nodded.

'Wonderful.' Koz tenderly touched his bad eye. Gummed shut. 'However. That other thing you're good at. Do think you could find Edvard?'

Another nod.

'Well? Can you then? Right now?'

Nodding again. Ever patient.

'Then do it!'

Pesach stilled. Eyes aimed at nothing. Contemplating? Concentrating? Performing?

Koz waited.

Finally, the golem raised an enormous hand. Pointing down the lane. The base of White Tower.

A gap in the crowd. Empty courtyard. A man, sitting alone on a doorstep. Vacant look. Tussled flaxen hair. Kozilek's height, but muscular. Filling out the red breast of his fusilier's uniform. Tankard gripped tight.

The bard behind Koz finished his song with a flourish, to smattered applause. Koz ducked away. Dragging Pesach towards the lone fusilier.

The residence behind the man was dark. No light through the closed door, the shuttered window.

Koz sidled up. Tapped the wall with his cane. 'Edvard.'

The man frowned. His left eyebrow parted in the middle. Scarred. 'Yes?'

'We're friends of Vorel.'

Edvard scoffed at this. 'My mother?'

Koz looked him over. He did have Vorel's sallow cheeks. 'I suppose so.'

'Mother doesn't have friends. Not many.'

Koz smiled, humourless. Lang had been Vorel's friend. 'You're not wrong.'

Edvard's dim almond eyes looked over Pesach. His porter's attire. Inspected Koz's swollen eye, his hammered face. Edvard leered into his tankard.

‘Go away. A Vorel doesn’t associate with peasants.’

Koz leaned against the closed window. ‘You owe your mother a tolar.’

Edvard’s head whipped up, growling. ‘*What?*’

‘Just the one.’ Koz drank deep from the young man’s anger. Inspected his glove.

‘Hardly worth me coming out, actually.’

‘Wait.’ He worked his handsome mouth. ‘How did she *know*?’

‘She’s Irenka Vorel. What doesn’t she know?’

Edvard shook his head. ‘Of all the insults!’ Leaning back against the door. ‘It’s only my last day at *the Castle*! I’ll still be a Red Artilleryman!’

‘Well. You know what she’s like.’

‘Besides, how can she expect me to have shot a Turk by now?’

Koz made a helpless gesture. ‘With an arquebus?’

‘I should never have agreed to that damnable bet.’ Edvard slammed his tankard down beside him on the doorstep.

‘Probably not.’

‘I’ve barely been on patrol!’ Chin wobbling. Indignant. ‘Carrying mail, cooking food. Washing chamber pots. It’s not my fault that pandering for prisoners in White Tower is the only way to afford food. If mother hadn’t cut me off, I wouldn’t *need* the money.’

Koz looked up, along the rounded bulk of White Tower. Where rich people suffered polite imprisonment. ‘Must’ve killed you. Being paid so handsomely.’

‘That’s *not* what I signed up for!’ Edvard’s eyes heated to zealous embers. ‘Rudolf is *enlightened*. Especially for a Catholic. He wears runes and amulets. Reads the stars to divine his fate. But he still needs protection! From his family. From the Ottomans. This uniform *means something*.’ He thumped his bulging chest. ‘Rudolf let the Red Artillerymen live in these archways for free. Free! To think, what these rooms are being used as storage for now.’

‘Storage?’ Koz peered between the window’s shutters. Pitch black.

Edvard shook his head. ‘I suppose I should count my blessings.’ Hefting his tankard. A toast, to no one. ‘I was fortunate enough to live in the Castle. *Rudolf’s* castle. For a time.’ A swig. A greedy gulp.

‘Fortunate?’ Koz tried the window shutter. Locked from within. ‘Or the son of a burgher?’

Edvard blinked. Wiped foam from his chin. 'Are you mocking me? My position? Who are you to say such things?'

'Kozilek. The Collector.' Down the lane, the bard started wailing again. Koz prodded the window shutter with his cane. 'Where are you being moved to, Edvard? And what are they storing in here now?'

'I'm twice the measure of any man here.' Edvard seethed and spat like hot oil. 'I *earned* this uniform.'

'And yet today is your last day at the Castle. Poor little Edvard.'

Edvard's jaw clenched. Angry fish thrashing in a pink sack. '*Say that again.*'

""Poor little Edvard?" What bit don't you like? The poverty, or the pity?' Koz stepped away from the locked window. 'Tell you what. I'll apologise for both if you tell me what's inside this room.'

Edvard narrowed his eyes. Rose, slowly.

Koz held out an open palm. Glancing at Pesach. 'Or are you going to pay what you owe?'

Edvard swung his fist.

In an instant, Pesach was between them. Arms thrown around Edvard. Looking down at the angry fusilier with that faint beatific smile.

Edvard writhed in the golem's inexorable embrace. Koz took a playful temps levé to the door. Locked. He reached over to Edvard. Picked his pockets. A key. And a money pouch.

Koz pulled free a single tolar. 'I'll hold onto this. Tell your mother she can collect it from me later.'

Edvard was making noises now. Furious cries muffled against the pear-green mass of Pesach's tunic. But it was nothing compared to the boisterous merrymaking of the taverns, and they were the only people standing in this part of Golden Lane.

'Pesach, dance this lonely man out of here. Make it lively. I won't be long.'

A pause. Then, arms held tight around his quarry, Pesach began to turn. No grace, no flair. A leisurely celestial rotation about the courtyard. Edvard, red-faced, at its centre.

Koz perched the tip of his cane atop his boot. Smiled as the golem wheeled away towards the crowd. Winced at his split lips.

He unlocked Edvard's door. Stepped inside.

Cramped darkness. He could sense the empty space, the ghosts of furniture.

Edvard's possessions in a rucksack. Koz sniffed, gagged. Swallowed a noseful of old blood.

Sniffed again. Caught a whiff of the fading stench of young male inhabitation.

And a hint of gunpowder. Koz froze. Safety catch in his throat.

Legs clenched. Waiting. The lantern light from Golden Lane leaked into the room.

Under the door, the window. Eyes adjusting to meagre illumination. Lungs burning. Koz let out his breath, mouth open. Slow. Soundless. He could hear the rabble outside. Distant footsteps. The hissing in his own ears.

It was just an empty room. Koz leaned on his cane. Stepped forward.

Ahead, in the corner. Three figures crouched low. Longer shapes protruding from each. Muzzles. All pointed right at Kozilek.

Koz closed his eyes.

Nothing.

Nothing but a telling silence.

Koz opened his eyes. Choking down his pounding heart. Took a moment. Then he approached the three golems crouched in the corner.

They were exquisite. Striking features, with etched manes of lustrous hair. Koz kneeled beside them. Like their Rudolfine siblings, they could have passed for statues. But the arquebuses they held weren't made of clay. Cruel sticks of metal and wood. Clay fingers resting on triggers. Faces pinched in concentration. Sighting down each barrel.

Identical poses. Rumpled sacking laying near each like discarded prayer shawls. All three had been moved here like cargo. Unwrapped. Aimed at the door, perhaps by coincidence. Perhaps as a prank.

Koz stood, shaking. Tugged on the nearest rifle. Held fast. Only a golem could loosen a golem's grip. He probed around the sides of the clay fusilier's head. Prodding rigid clay follicles. No latch, no handle. Koz raised his cane. When those porters had murdered that missive golem in the Old Town alley, they had been striking the back of its head. Koz gripped his cane and swung hard. Once. Twice.

The top of the golem's skull drifted open. A door in a breeze. Garnet eyes vacant.

Koz shivered. Reached for the scroll with gooseflesh arms. Pulled it out. Thin paper, rolled left-to-right. Silver threads. Line after tiny line of Golem. Florid border of succulent peaches and delicate wheat. He slammed the head shut. The clay fusilier stayed immobile. Still as its fellows. Guns pointed into the darkness. Thoughtless.

Koz worked on the other two golems. It took several swings, but he got both heads open. Plucking scrolls from clay skulls, thoughts stolen in darkness. Like a nachtkrapp. Koz rolled up and jammed all three scrolls into his doublet. Made for the door. Eagerly fleeing this abode and its occupants.

Golden Lane was loud. Louder than before, and getting louder. Energetic cries. Hurried footsteps. Koz slipped outside. Enveloped by a jeering crowd. The courtyard around White Tower was packed. No sign of Pesach or Edvard. Deep in the crowd, the resonant clang of blade upon blade. Leather creaked as Koz gripped his cane.

A duel.

Koz hustled forward. Prying people apart as the fight rang out ahead of him. Jabbing his cane into ankles, his elbow into ribs. Ducking through the chaos. Fighting to see.

An angry grunt. Someone struck him on the back of the head. Koz reeled. Falling hard, shoving people aside. Breaking his fall with his left forearm. Pain erupted, a dissonant chord strummed on muscle and bone. Koz rolled. Left arm limp. He cried out, but couldn't hear it. The world crammed tight against him, and it was louder.

Koz licked his lips. Croaked. '*Pesach.*' An urgent whisper. Surely loud enough for the golem. '*Pesach.*'

Clamorous figures ignored Koz. Stepping on him, over him. Blotting out the failing light.

No sign of his saviour.

Koz gritted his teeth. Craned his head. Looked along the cobblestones of Golden Lane. He had landed near the front of the crowd.

Through a shallow forest of swaying legs, he could see them. Duelling by torchlight.

Johannes Leo. Green woollen robe rumpled. Azure eyes glaring below a frazzled mess of rusty hair. Rapier in hand. Swinging wild. Parrying his attack, a lavish man in a fur-lined robe and immaculate black doublet. Clipped beard. Healthy paunch. Rapier in his left

hand a masterwork. Right arm lowered his side, dagger in hand. Familiar golden chain majestic around his neck. A Knight of the Golden Fleece.

Leo lunged again. Easily parried. The noble feinted, kicked Leo away. Refined. The better duellist. But his pampered countenance glistened with sweat. Leo, freshfaced and furious, lashed at his opponent. Snarls inaudible to the screaming crowd. The noble still held Leo at bay. Stance and technique of a snake. But faltering. Rapier in his left hand getting clumsy. Right hand clutched around the dagger, unused. Right shoulder stiff, hung low. Something wrong with that arm. Still the noble parried Leo, again, and again. Circling. No fangs. Too defensive to strike a blow of his own.

Koz struggled to his hands and knees. Grabbed a porter for support, fistfuls of a filthy brown doublet. The greasy man pushed him away, but the press of the mob kept Koz upright. He looked back to the duel. Just in time to see it end.

A single image. A flawless frieze of human folly. Leo had knocked aside the noble's rapier. Lunged forward. Struck true. Leo's rapier was planted deep in the noble's gut. Right through. Tip distending the robe on the noble's back. Leo, teeth bared. The eyes of the noble, emptying. Draining fast.

The crowd was hushed for just a moment. And then it erupted. Indignation, celebration. Shouts as hot as arterial blood.

The noble fell backwards. Slid free of Leo's rapier. Blades tumbling from his hands. Leo staggered back. Blood drunk. The noble mouthed something. Eyes wet. Hand outstretched. Leo levelled his rapier at him.

'Peace!' Shouting, somewhere behind Koz. A Dutch accent. *'Peace!'*

Leo faltered. Clenching the rapier, hissing between his teeth. Rearing up for a killing blow.

'Please, Johannes! Peace! Mercy, I beg of you!'

Leo faltered again. Voice of reason parting the crowd. The short man from Vladislav Hall, the court secretary. Striding into the courtyard. Dainty hands outstretched.

'Has there not been enough death? Have you not made your point to this man?'

Kind eyes searching Leo's. Brow furrowed. Bushy eyebrows raised.

Leo let out a cry of disgust. He cast the rapier down, handle first, upon his felled foe. Weeping, now. The court secretary embraced him. Cradling Leo's head against his

embroidered doublet. Some people in the crowd applauded. Most grumbled. The crowd dissolved quickly. Drifting back to the taverns to wallow in their golden mire.

Koz loitered. The defeated noble writhed, feeble. Ignored.

The court secretary wiped away Leo's tears. 'I'll speak to the Holy Roman Emperor myself. I'll see that you receive no punishment for such an act. You have been driven mad, for a time, by loss. And you did spare Jean's life.'

Leo nodded at last. 'The Golden Fleece...'

The court secretary nodded, understanding. Guiding Leo away. 'Rudolf will understand. He is a very sympathetic man, as you know. He is heartbroken over the death of your son. I assure you. Now go. Westonia is waiting for you outside the Castle.'

Leo stopped. Let go of the smaller man. Reached into his doublet. Pulled forth his own chain, thick and golden. Tiny golden ram hanging upon it. He wrenched the necklace from his neck, spilling golden links on the cobblestones. He kneeled before Jean. His fallen foe, still mouthing blank syllables. The court secretary lay a hesitant hand on Leo's shoulder. Gentle. Trying to pull him back.

Leo resisted. Reached down. Seized Jean's own golden chain. Gripping the symbol of the Golden Fleece. He tore it from Jean's chest. Grabbing the fallen links in a shaking fist. Clasp claimed riches.

The noble's eyes fluttered. Closed. Blood flowed from under him, between cobblestones. A red army marching away from its homeland.

Koz realised he was alone. A crowd of one.

He turned. Stomping boots, approaching fast down Golden Lane. Castle guards. Koz spun, a parody of nonchalance. They ignored him. Marched by without a word. The grey figures apprehended Johannes Leo. Some tended to the fallen Jean. Tearing his black doublet to get at the wound. Koz spied bandages around Jean's right shoulder and breast. No wonder he hadn't used his right arm. He'd entered this duel already wounded. It could have cost him his life.

Koz coughed. Turned away.

The court secretary called out. 'It's Kozilek, isn't it?'

Koz froze. Turned back. The small man was walking towards him. Koz tried on a smile. 'It is.'

The court secretary smiled back. Warm. Reassuring. 'My name is Johann Barvitius. Court secretary to Rudolf. I think... we have much to discuss.'

Chapter 17

Barvitiuſ led Koz into Vladislav Hall. An empty ſhell of commerce. At the far weſtern end, there came a keening wail from the Royal Palace. Howling. Profound melancholy, mental anguiſh and pain. Koz looked to Barvitiuſ, who proffered an embarrassed ſmile. Uſhering a Rudolfine golem aſide, the court ſecretary geſtured Koz through an open northern door. Pulled it ſhut behind them.

The Diet Hall. Where burghers met to diſcuſs the fate of Prague. Koz paused on the rug. Took in the confident opulence. Tall, curtained windows. Oil paintings, gilt frames. The ceiling bore the ſame pattern as Vladislav Hall, candelabrum bloſſoming from an architectural flower. A pendulous iron ſtamen burſting with light. Long benches filled the middle of the room. Dark wood. Pluſh cuſhions. A church of governance, its pulpit a ſtunning throne beneath a ſcarlet baldachin. Rich red canopy ſimple, yet impoſing. If there had been a ſeſſion of the Diet today, no ſign of it remained. But the hiſs of negotiation lingered. Koz leaned forward. Straining to hear the fading whiſpers of ſtate diplomacy.

Barvitiuſ ſtood beſide Koz. Watched him inſpect the room. Coughed, tremulous. Geſtured to a painting.

‘Have you ſeen this particular Arcimboldo? *Summer*, 1563.’

Another grueſome amalgam of produce. A grinning woman, bedecked in wheat. Peach for a cheek. Hair like an overſtuffed neſt.

Barvitiuſ marvelled at it. ‘Arcimboldo’s method of portraiture was truly inſpired. So adept at imagining tranſmutation. Such a ſhame he choſe to retire to Milan when he did, ceding his title of Royal Golemsmith to Brahe. Thankfully, before leaving in 1599, he furniſhed us with many of his works. Rudolf ſtill honours Arcimboldo’s parting wiſhes.

Complementing the current season with the matching portrait. *Autumn* will be hung here soon. The only evergreen work is *Vertumnus*, in Vladislav Hall. Have you seen it?

Koz checked the ceiling's corners. Statue heads surveyed the space. Lion's head, teeth bared in challenge. Ram's head, surveying the benches. Mouth parted. Peering down in stylised surprise. Grotesque shield-bearer watching over the throne.

Barvitiuss coughed, discrete. 'We *can* talk alone here.' Claspings at his embroidered doublet. He had a soft frame, rounded like an upright egg. Wisps of grey hair fleeing a barren crown. Pampered marble skin a stark contrast to the weathered grain of Koz's complexion.

Koz stared at the stonemason's bust above the baldachin. It was staring at the door. At Koz. If these were likho, there was nowhere to hide.

Barvitiuss gestured at Koz's battered face. 'Should I send for a physician?' Koz ignored him. Barvitiuss pressed on. 'And how is Maisel these days? Staggering to think that it's been fifteen years since I first met him, when I took my post as Rudolf's secretary. Such a long time now, since I've seen him at court. Almost a decade!'

Almost a decade since Rudolf robbed Maisel for decrying the golems. Koz clicked his tongue. 'He's been busy.'

The court secretary regarded Koz. Finger perched on his chin like a plump white bird. 'Kozilek the Collector. I find your nom de guerre intriguing. I understand the vocational aspect, but the name "Kozilek" eludes me. Is it your real name? It means "imp", yes?'

'It means "demon".' Koz adjusted his glove. 'Your accent. Dutch?'

'Well spotted!' A polite clap. 'You're from Italy, yes? Though to hear you speak, I can't place the region.'

Koz twisted his cane. Driving the tip hard into the floor.

'You seem nervous.' A long, placatory look. 'Do you fear the Castle's clay watchers?'

'Begging your pardon, but we all fear the likho.'

'But they are harmless things! Brahe originally designed them to watch the stars, you know. They only watch Prague now because of the threat posed by Matthias.'

'But wasn't it Brahe's idea that Rudolf openly oppose Matthias?'

Barvitiuss winced. 'It's... more complicated than that.'

‘So for the sake of one individual, the Castle monitors all of Prague?’

‘Does that bother you?’ Earnest eyes glinting. ‘Do you have something to hide?’

Koz raised his eyebrows. ‘Yes. My privacy.’

Barvitiuss chuckled at this. Bushy eyebrows waggling. ‘Likho, nadlers...’ He stepped close. Placed a pale hand on Kozilek’s shoulder. ‘Such *harmful* names. For harmless things. Golems do only what they are told.’

‘Yes.’ Koz squirmed under the small man’s touch. Feeling Maisel’s signet ring shift beneath his doublet. Clay fusilier scrolls tucked beside it. ‘That’s what scares me.’

‘Do soldiers scare you? They follow orders.’

‘That’s different.’

‘Why?’ Mossy eyebrows arched. ‘Soldiers get angry. Tired. They have families, responsibilities. So much on their mind. They make mistakes.’

‘Golems make mistakes.’

‘Mistakes from which all golems can learn.’

‘Really?’ The clay fusilier in Golden Lane didn’t look like a mistake. ‘What have golems learned about hurting people? How educational was the Riot of Krocín Fountain?’

‘Very, I’m sorry to say.’ Abashed. ‘A most regrettable incident. Golems are powerful tools, and tools can be misdirected. Misused. But! Vyšehrad has promised there will never be another Krocín Fountain. This is how the Rudolfine Court and the Golemsmith Guild protect Prague from golems. Why all golem production is restricted to their efforts. It’s the counterfeit golems that are dangerous. There’s no oversight.’

‘Where do the Jews fit into this oversight? The sofrim that Arcimboldo stole from?’

A grave look. ‘I can’t speak to Arcimboldo’s actions. What he did, he did before my time. But what I can do is assure you that now, today, golems are a power for good.’

‘Of course you’d say that. You’re of the Castle. It’s your power.’

‘Well, yes.’ Barvitiuss frowned. Squeezing Koz’s shoulder. Grip weak. ‘But surely that is another conversation. The Castle had power before the golems came along.’ Wounded. ‘Have I offended you somehow?’

Koz flushed at this. Dressing down a polite functionary. Needling someone from the Castle in full view of the likho. He slid away from the secretary’s grasp.

Barvitiuss opened conciliatory palms. 'No fear. It could be my doing. Perhaps the choice of room... it can be intimidating to some. I apologise.' Interlacing his fingers. 'I have a meeting in here shortly with Rudolf's cousin, and it seemed an adequate space for our needs. It was not my intention to pressure you. I simply wanted your opinion.'

'My opinion?'

'Perhaps... well.' Barvitiuss pulled out a crumpled handkerchief. Picked at it. 'Perhaps even your help.'

Koz ambled over to a wooden pew. Sat on plush red cushion, one leg atop the other. Posture tilted towards the court expectant secretary.

Barvitiuss began to pace about the open space at the front of the room. Quiet footfalls on a filigree rug. 'As you can imagine, word has reached the Rudolfine Court of the... incident. The murder.'

Koz nodded. John's corpse hanging heavy in the air between them.

'All the burghers of Prague are pressuring Rudolf to act. For now, Rudolf has declined an audience with them. I have arranged for him to speak with Maisel first. Tomorrow night.' Barvitiuss glanced at Kozilek. 'Now... I suspect that this is a favour you're already doing. As an employee of the Primas of Jewish Town. But on behalf of the Castle, this is a matter we would also like dealt with. Whatever Mordecai Maisel pays you, we will pay you an additional equal amount. To solve the crime.'

'I see.' Koz watched Barvitiuss twist the embroidered handkerchief in his hands. There was a lump wrapped in the middle of it.

'I just pray that answers are found soon enough!' Barvitiuss monitored each step of his slipped feet. 'There is a rising unrest. I've seen to it that Vorel post her guards outside Jewish Town. Castle guards will be sent there at the first sign of trouble. Apparently, some bambitky have been seen prowling at the Jewish Town gates. It seems we were not successful in our early efforts to drive those heartless Italian gunslingers out of Lesser Town.'

'I don't know what scares me more. Them, or Vorel's guards.' Koz rubbed his forehead. Tender from head-butting Chittusi's bambitky at the Argil Ring. Touched his split lip, his black eye. Souvenirs from Old Town Hall. 'I'd think twice about which burghers you trust. I certainly have to. And I'm not even Jewish.'

Barvitiu stopped pacing. 'The Castle *watches*, Kozilek. Every burgher, every guard. We are doing our best to prevent any further bloodshed.'

'Unless you're a Knight of the Golden Fleece?' Koz flicked his hand in the direction of Golden Lane. 'We both saw Leo. He ran a noble clean through, with no punishment. And he was lucky to do it.'

Barvitiu started at this. 'Lucky?'

'Leo's opponent. Jean. His right shoulder was bandaged, his right arm limp. I'd wager Jean favours his right with a sword. Leo was lucky to walk away with his life. Not to mention his freedom.' Koz tried to choke down his choler. Failed. 'What if Leo hadn't been a Knight? It's not everyday somebody gets away with a duel in Rudolf's Prague.'

'It's not everyday that your child is *murdered*, Kozilek.' Barvitiu cringed. 'But... I see your meaning. There must be order, even for poor Johannes.' The court secretary sagged. Turned away. 'A freshly indoctrinated lawyer, reduced to a *beast*. Stabbing the third Duke of Terranova over unkind words. Some imagined slight, I'm told! A callous comment from Jean, in passing. And Westonia... who knows if she'll ever write her wonderful poetry again. All because someone seeks to incriminate the Jews! All because someone thought to unearth a malignant falsehood of the sort that we all thought had been consigned to history.'

'Oh, but people *love* those parts of history. Great for giving them ideas.' Koz's tongue moved quicker than the teeth that would bite it back. Pain crowded his thoughts. Made every second hot and red.

'But history is over!' Barvitiu spun back towards Kozilek. Light eyes moistening. 'Now, we live in an age of wonder. The Holy Roman Emperor seeks to cure the noble metal that is the base human spirit. To elevate it. Now that clay is far more valuable than gold, this is the only lesson alchemy has taught us! Rudolf has brought to his court more artisans, sculptors, mathematicians, and masters of the occult than have ever been seen. I myself petitioned Rudolf to invite Tycho Brahe to Prague. His time was short here, but his influence, and the influence of people like him, will outlast us all.'

Vorel, watching Koz in his dark Old Town Hall cell, lantern in hand. Casting shadows on the nature of Brahe's death. Maisel, lit by the setting sun, right before the Shabbat. Confiding in Koz that he had asked the Tzemach David to spy on Brahe, as he had done Arcimboldo. Until Brahe died. And Gans soon followed.

Koz watched the court secretary's eyes. 'I heard a rumour the other day, in Vladislav Hall. You're the one looking over Brahe's notes in the Astronomical Tower.'

Embarrassed. Looking away. 'I am but an amateur.'

'Anything in there about David Gans?'

Barvitiuss cocked his head in recollection. 'It was a very professional relationship. I understand Gans provided some translations, but the stellar observations were Brahe's own. They're quite remarkable! And as many believe, "As above..."'

"...so below".' Koz snorted. 'As the heavens move above, they shape events below. I know it well. What happens to those on top, people like Brahe, is felt by those beneath them. People like Gans.'

Barvitiuss scoffed at this implication. Waving Koz's cynicism away. Fingers worrying at his rumpled handkerchief.

Something fell from his hands. A silvery lump. It bounced on the rug. They both watched it roll to a halt.

An electrum nose.

'Oh.' Barvitiuss stammered. He scooped up the nose. 'Clumsy.'

Koz hid his shock with a cough. Wiped his lips. 'Not the one Brahe was buried with, I hope.'

Barvitiuss gave Koz a furtive glance. Saw Koz's smile. 'No.' Nervous laughter. 'No, just a token. This one actually belonged to Rudolf.'

'A parting gift? I hope someone wants my nose when I'm on my deathbed.'

If Barvitiuss heard the barb in Koz's remark, he didn't show it. 'Rudolf was greatly moved by Brahe's passing. A genius and a friend. Lost to the banality of physical failure. Rudolf could hardly bear it.' Barvitiuss folded the nose back into the handkerchief. Fingers shaking. 'Afterwards... Rudolf locked himself away in his rooms, as is so common now. Ever since Brahe predicted that Rudolf would meet an untimely end early this century, the Holy Roman Emperor has preferred to keep his own company. But... when Brahe died, Rudolf worsened. Seeking answers while in solitude. Entreating otherworldly entities for aid.' Barvitiuss glanced away. Towards where the Royal Palace had echoed with howls of pain. 'I dread to imagine it! Locked in his rooms, clutching Brahe's nose. Drawing circles on his floor with his enchanted sword. Trying to bring his beloved friend back to life.'

‘So you confiscated Brahe’s nose.’ Koz bounced the heel of his cane on the toe of his boot. ‘I assume Rudolf doesn’t know.’

The court secretary went redder than the Diet Hall cushion under Koz’s backside. Twisting the handkerchief into knots.

‘It’s... quite a nice nose.’ Koz stilled his cane. Cleared his throat. ‘I hear Brahe was quite the inventor.’

‘Yes. Indeed.’ Barvitiuss tucked the handkerchief away. ‘Armilaries, quadrants, sextants. Mechanical devices of staggering precision and complexity. Marvellous things. Hard to imagine their like being built again.’

‘I heard he built something for the likho. Something to wash the scrolls. In the Jupiter room.’

Barvitiuss nodded. ‘A truly beautiful machine.’ He approached Kozilek. Palms up. Conciliatory. ‘But surely a sign that the likho aren’t dangerous, yes? The scrolls, the memories, aren’t kept. Much of what the Castle sees, the Castle is happy to forget. Rudolf just wants to know whether his brother Matthias is here in Prague.’

Koz drew away from the secretary. Three Old Town women, dead. Dragged screaming to the stage. Executed because of what the likho could and couldn’t see. Koz shivered. Somewhere, deep in the Castle, he could feel the Holy Roman Emperor’s silent wail. The ripples of a dark and desperate melancholy. Walled off from the world below.

Oblivious, Barvitiuss sat beside Koz. ‘I’m afraid we’ve gotten off topic. We must discuss the blood libel.’

Koz stood. Walking away on shaking legs. ‘I’m already on it.’

‘Oh!’ Barvitiuss clapped. ‘Wonderful! You will be paid handsomely.’ The court secretary stood. Moved to embrace Koz.

Koz held him at bay with a rigid hand. ‘Pay me in information.’

Barvitiuss stopped. ‘Are you certain?’

‘I need to know about the Knights of the Golden Fleece.’

‘Why?’ Thick eyebrows pushed up the fine lines of the secretary’s forehead. ‘Do you think they’re involved somehow?’

‘Yes.’ Lang, slumped against *The Garnet*. Lifeblood spilling out from between his fingers. Moments after he gave Koz evidence that the likho hadn’t seen the blood libel. ‘They keep cropping up.’

Barvitiuss fretted at his doublet. ‘But that duel in Golden Lane between Johannes and Jean was a personal matter. I don’t...’

Koz said nothing. Teeth clenched.

Barvitiuss couldn’t meet Kozilek’s gaze. ‘Well... the Golden Fleece is a chivalric organisation. Distinguished members, in many countries. When the Knights meet in Prague, Rudolf grants them use of the Diet Hall.’

‘How is Johannes Leo distinguished enough? A poor lawyer from Lesser Town?’

‘Leo and Westonia, bless them...’ A soft shake of the head. ‘They have been in financial trouble since the death of Westonia’s stepfather, Edward Kelley. Many of Westonia’s poems to both myself and Rudolf have been entreaties for financial relief. It started during Kelley’s incarceration, when she begged us for his release. Such a terrible sequence of events. Are you familiar?’

‘I’ve heard of Kelley.’ Koz kicked one boot against another, red cheeks pointed down. Scuffing the delicate rug. ‘I want to know about Leo. How did he become a Knight?’

‘Rudolf arranged for Leo to become a member! He saw to it that they waive Leo’s lack of noble birth. An act of charity, a balm for him and his wife.’

‘But why the Golden Fleece?’

‘To give Leo status. He’s a lawyer for Vyšehrad now.’

Koz looked up at the throne. Shimmering in the candlelight. ‘Can Rudolf not afford to just pay off Leo’s debts?’

‘The financial matters of the Castle are not something I am prepared to discuss. Suffice it to say... the war against the Ottomans was expensive. The treasures of the Kunstkammer, the golems. All expensive. But necessary.’

‘Necessary.’ Leo had snatched up fistfuls of gold in Golden Lane. Hungrily. Decent recompense for stabbing a rich man in the stomach.

‘We are at the forefront of history.’ Barvitiuss became breathy. Solemn. ‘The discoveries of the Rudolfine Court will change the world.’

‘Change the world for who?’

'For everyone.'

'What about Hominem Mundi? Isn't that a sign people don't want change?'

Barvitiuss wrinkled his button nose. 'Doesn't everyone deserve change? A chance to improve their lives?'

Koz licked the back of his teeth. Tongue thick and dry. He wanted to go home.

'I'll get the job done. I'll solve it.'

'Excellent.' Palms out in supplication. 'I thank you. Rudolf thanks you! I don't need to tell you what the Jews of Prague mean to him. He misses the Maharal terribly.'

'Oh?' Koz gripped his cane. 'Did they ever meet?'

'Of course! They last met in... '92, I believe? Eighteen years ago, three years before my time. Rudolf invited the Maharal here to the Diet Hall. The Holy Roman Emperor was eager to learn the ways of the Kabbalah. Arcimboldo was invited also, and a few burghers. Rudolf was keen to open many minds, not just his own! But... ' Barvitiuss sighed. 'Apparently, when the Maharal arrived, he politely refused to share his knowledge. Poor Rudolf never got a chance to change the rabbi's mind. The Maharal moved to Poland not long after.'

Poznań, Poland. Then nowhere at all. Koz hobbled for the door. 'Just don't let Rudolf expel the Jews from Bohemia again, blood libel or not. No matter what happens.'

Barvitiuss looked pained. 'Rudolf would have to go against the decree of Maximilian II. His own father.'

'That wasn't a no.'

'It wasn't a yes!' He crossed his embroidered arms. 'I can't speak to what decisions Rudolf might make in the future. But I can assure you, as long as there are Jews in Prague, they will be protected.'

'And a castle is a castle.' Koz twisted the doorknob. 'Don't worry, Barvitiuss. I'll bring you the perpetrator before Maisel has his audience with Rudolf.'

'You needn't trouble yourself with the journey! Bring the guilty party to any Town Hall. The burghers will send us a missive golem. The Castle can bring them in.'

'And if a burgher is behind it? No. I'll bring you the killer myself.'

‘Are you... well enough?’ Barvitiuss appraised Koz again. His cane, his eye. His temper. ‘I know many physicians. Chittusi, the Lesser Town burgher, lives not far from here. I can attest that he is quite familiar with Mattoli’s *Herbarium*.’

‘Chittusi? I’ll take my chances.’

‘Or perhaps I can help? Chittusi has taught me a little about herbalism. I’d be happy to —’

Footsteps approaching. Koz yanked the Diet Hall door open just in time for a tall, uptight man in his early twenties to barge through. Close cropped hair. Rheumy eyes. Lush robes, black and red, smelling of horse sweat. A visitor from outside Prague, just arrived. Strolling past Koz like he wasn’t there.

‘Ah!’ Barvitiuss was surprised, but pleased. ‘Archduke Leopold, how good to see you. You’re early.’

‘Barvitiuss.’ Leopold’s voice was silken. ‘Our meeting Saturday was so *invigorating*. Who has patience, when the well-being of Prague is the topic of the day?’

Koz tilted his head at Leopold’s regal German accent. At his full Habsburg lips, thick and red as the trim of his robe. ‘You’re related to Rudolf?’

Leopold turned. Said nothing.

Koz stood fast under Leopold’s peremptory gaze. ‘I heard something about you, when I was last in Vladislav Hall. What was it... something about marching out of Passau, with mercenaries? Headed west.’

Leopold’s face hardened. Barvitiuss flicked nervous eyes between them.

Koz tapped his bristled chin with a gloved finger. ‘Isn’t Prague *north* of Passau? If you were marching west, you’ve gotten quite turned around... if you marched with the mercenaries at all.’

Barvitiuss stepped forward. ‘Please, Koz. This is hardly appropriate...’

‘Of course.’ Koz dropped into a demonstrative bow. ‘My apologies. I’m sure Rudolf needs all the help he can get against his brother.’ Turning to the secretary. ‘Goodbye, Barvitiuss. Send for me if you find out anything new.’

Leopold was reddening. Koz excused himself from the room. Barvitiuss, a hand at Leopold’s back, ushered him deeper within the Diet Hall. Muttering soothing words.

Koz glanced back as the Rudolfine golem closed the Diet Hall door. Locking eyes with Barvitus. Handkerchief bunched in the secretary's hands. Brahe's legacy.

Rudolfine masterpieces watched Koz march out of Vladislav Hall. Grey guards watched Koz leave the Castle. Deadpan. As he walked away, Koz gave his bad eye a tentative poke. It was slowly opening.

Pesach stood waiting on the road outside the Castle. Huge and obvious. Patient as a nadler-cart.

Koz waved. 'Where were you? You missed the duel.'

Pesach's eyes traced the black ribbon of the Vltava.

Koz fetched up against the golem. 'I spoke with Barvitus, Rudolf's secretary. Apparently Leo is a Knight of the Golden Fleece. Or was. It looked like he quit after he stabbed one of the other members, some noble named Jean. A duel that Leo only won because something was wrong with Jean's right shoulder.'

A light breeze ruffled Pesach's hair. His eyes transfixed across the river.

'No light on Brahe's death. Vorel's suspicion of it makes me wary, but I'm not sure why. What's suspicious about popping your bladder?' Koz spat. Wiped his lip. 'Gans *was* murdered right after...'

An oystercatcher trilled overhead, a squeaking scream. Pesach didn't look up.

'To hear Barvitus tell it, sounds like Rudolf hasn't appointed another Royal Golemsmith in the nine years since. He's too heartbroken. But what if he didn't replace Brahe because he didn't *have* to?' Koz pulled his mandilion close against the chill. 'Is Brahe why Vorel sent us to the Castle? Or did she want us to find the clay fusiliers? Point us towards Vyšehrad? It would keep us out of her hair...'

Pesach's gaze drifted upriver.

Koz gave Pesach's obelisk arm a poke. 'What did you do with Edvard?'

The golem's eyes vacillated. Seemingly aimless.

'As long as you didn't kill him.'

They watched the Vltava. Jewish Town, following the bulging curve of the east bank. More lanterns than usual lined its Old Town border. Especially at the gates. Koz squinted. Searching the waiting mob for bambitky. Futile, from up here.

Pesach hadn't moved. Koz followed his gaze. Fixed across Stone Bridge.

Koz gave the golem a nudge. 'What do you see?'

Pesach spoke. A soft voice, unfamiliar. 'Greetings, Westonia. Come in.'

'What? Where?'

Pesach pointed. Across Stone Bridge. Clay digit levelled at the Klementinum.

'The Church of the Holy Saviour is in the Klementinum. Westonia's going inside?'

Pesach nodded.

'Vorel made it sound like Hominem Mundi is in there.'

Pesach walked away. Heading down the hill. Stone Bridge ahead.

Koz peered around for a nadler-cart. Found none. He tapped his boots with his cane.

Striking life back into tingling feet. Falling in step behind the golem.

Chapter 18

Klementinum. Prominent Jesuit college. Founded half a century ago, when the Jesuits came to Bohemia. Church of the Holy Saviour on its south-western corner, close to the Old Town Bridge Tower. Eyes upon Stone Bridge. Windows dark, tonight. If there was a congregation inside singing hymns, they were doing it with their mouths closed.

Koz and Pesach stood across the street from the church. Koz rested his aching feet, leaning on Pesach for support. Pesach stared away from the church, down the street.

Meagre light glowed under the church's front door. Koz frowned. 'Westonia went in there? I don't suppose you have any ideas about how to get in?'

'I might have one.' Someone was approaching. From where Pesach had been staring into the the darkness. 'I'm glad you could make it, my large friend. I did wonder if my words in Old Town Square had gripped you.'

Scotta sidled up beside them. Black doublet. Cunning eyes. Coppery beard and moustache, dagger sharp. Red silver-handled cane. Sugarloaf hat.

Koz growled at his old mentor. 'That's my hat.'

'And that's my sword cane.' Scotta adjusted the capotain. Tilting it on his nest of dark red hair. 'Or did you forget who gave it to you?'

'You're doing fine without it.'

Scotta twirled his new cane. 'Carpathian elm. Such a *lovely* red. I made it myself, like the bog oak cane I made for you. For my protection.'

'What about people who need protection from you?'

'Such *venom*.' Stroking the glistening scar on his cheek. 'When I think of how grateful you once were...'

'The man I was grateful to is dead.' Koz turned away. 'The old Scotta got himself shot. That bullet to the head killed him. I don't know you. I don't care to.'

'*That's* what you think? That who a man is can be divided in time with a bullet?' Scotta crossed the street, chortling. 'Follow me, Kozilek. You and your friend. You've been hiding too long.' He rapped energetically on the church door. 'It's time to join the people of the world.'

The door opened a crack. Illuminated by a shaft of light, Scotta's grin was monstrous.

'No.' Koz bared his teeth. Turned to Pesach. 'Forget this. We'll find Westonia later.'

Pesach was already walking towards the open door.

Koz chewed his moustache. Breathed out, tremulous. Followed them inside.

The sanctimonious quiet of the Church of the Holy Saviour enveloped them. A Jesuit priest closed the door behind them, candlestick held close. Head bowed. Deferential. Scotta breathed in this open supplication. Old fire dancing in his eyes.

The priest led the way through the church. The short buildings beyond. Winding within the dark interior of the Klementinum. Every step and scuffle echoed. Koz behind Pesach, following Scotta.

Down stone stairs. An underground corridor, ancient. Smelling of recent use. Mismatched masonry walls. The Church the Holy Saviour was built on top of the ruins of the Church of St. Clement. New standing on old. Scotta overtook the priest. Koz hobbled, struggling to catch up.

Cellar door, at the end of the corridor. Murmured conversation lay beyond. Scotta's toltars flashed in the candlelight. Palm to palm. The priest smiled. Pushed past Pesach and Koz, slinking away, counting.

Scotta paused. Hand on the doorknob. 'Do I worry you, Kozilek?' Admiring Koz's scowl. 'Who I am now?'

Koz thumbed the safety catch.

'Or are you worried that *you* changed... and I never changed at all?'

Scotta tossed the capotain. Koz grabbed it. Rammed it onto his head as Scotta opened the cellar door with a flourish.

Hominem Mundi. A large crowd in a small cellar. Old Town mob, the same eclectic mix of skin tones and shapes, but no finery. Servants. Porters. Vagrants. Air warm with tobacco smoke and musty sweat. They turned as one towards the opening door.

They were cheering.

Scotta sang out. Exuberant. Leaping forward. Already shaking hands. Unfamiliar faces, but not all. Sladký, shaking Scotta's hand with vigour. Machta, scowling at Scotta playfully. Embracing him. Scotta slapped her heartily on the back.

Koz stuck to the back wall. Slid away from the chaos. Dragging Pesach along. Looking for his quarry.

They found her alone in a corner. Westonia. Crouched on an old barrel. Thick legs pulled up to her chest, arms wrapped around them. Fists tight. Cloudy eyes peeking through a frazzled explosion of auburn hair.

She glanced at Kozilek. Looked away. Wrinkled nose against her knee.

Koz sniffed the hazy air. 'Don't like tobacco smoke?'

Westonia nodded. Not meeting Koz's eye.

Koz cleared his throat. Phlegm and old blood. 'I'm sorry to hear about your son.'

No nod this time.

'How's Leo holding up? He did well to survive that duel.'

She turned her cold cerulean eyes upon him. 'And you are?'

There was a raucous bellow. '*Friends!*' Scotta, standing on a box at the back of the cellar. Arms wide. 'Prague was already crowded when the golems came! Its streets swollen with the poor. With *us!*' Everywhere, mirthful faces grew intent at the sound of his voice. Acrid air growing bitter and still.

Westonia ignored Scotta. Frozen gaze on Koz becoming a heated glare. 'Wait. It's you.'

Koz smiled, awkward.

Scotta's voice crackled. An oncoming storm. 'And golems feed on money! The rich pay exorbitant costs. Procuring golems of their own. Giving them jobs they require no payment for. *Our* jobs. Golems *eat* gold, friends! And they spit *none of it out!*'

Westonia got down from the barrel. 'I know who you are.' Squaring off against Koz with ease. 'You don't belong here.'

Koz backed away. Motioned towards Scotta. 'You saw who I came in with.'

'With him? A populist rabble-rouser?'

'I'm here for the meeting.'

'You're just as new to this as I am. Because you're a spy. For the *Jews*.'

Scotta was hollering now. 'We dredge their *clay*! We break our backs, our fingers. We trade *our* flesh for *theirs*. For creatures that Rudolf claims work for all of Prague. But tell me. Does a single golem in Prague work for *us*? ' Scotta struck the low ceiling with his cane. 'The Jews had theirs. Oh yes! Our usurious neighbours *had* their saviour. But tell me. Where is *our* golem?'

At the mention of the Jews, Koz gripped Pesach's doublet.

Westonia gestured at Pesach. 'And who is this?' Sneering. 'Is this a Jew that you've snuck down here? Where's his circle? Is he too cowardly to admit what's coming to him?'

'Quiet!' Koz's voice was a desperate hiss. 'Don't you worry about him. Better you worry about the things you said in Vladislav Hall. You might have meant them, but you were played into saying them. Screaming them at the top of your lungs. And now more people are going to get hurt. A lot more.'

'You think I should worry!' Westonia's fists were at her sides. 'No. It is the Jews of Prague that should worry about me.' One fist clenched around links of gold. Two tiny golden pendants swinging from between her fingers.

Koz pointed at her fist. 'Nice sheep. Did Leo give you those? Where is he?'

'Leo is at home. Grieving with his children.' Westonia stomped towards him. Koz expected the stone to boil beneath her feet.

'I promise you.' Koz held up an open palm. 'We're on the same side.'

'Are we?' Another white-hot step. 'Would you ever turn on your employer? Would you bring the Primas to justice?'

'Maisel is a good man.'

'Then we will never be on the same side.' Her approach implacable.

Scotta had stopped proselytising. His quieted mob watching Westonia march towards a retreating Koz.

Koz raised his cane. 'I'm not just doing this for Maisel. I'm doing this for Barvitus. Dammit Westonia, I'm doing this for *John*.'

‘How *dare* you!’ Westonia slapped his cane aside. ‘How *dare* you say that to me. How can I possibly believe you? A base, putrescent *villain* who claims to have *defeated my father*?’

Koz winced. ‘You heard about that, did you?’

‘*Get out!* Before you feel the wrath of a mother in mourning!’

Stuck between the hammer and the anvil. Teeth clenched. ‘You can’t trust the Golden Fleece. You need to know what Leo — ’

Westonia lashed out. An arc of fury tipped with gold.

Koz flinched. Eyes scrunched shut.

The blow never came. Westonia was screaming.

Koz opened his eyes. Pesach had Westonia by the wrist. She flailed in his grasp, screeching.

‘Let her go!’ Koz struck Pesach’s chest. ‘Don’t hurt her!’

Pesach released her. She stumbled back, gasping. Fell against the wall. Auburn hair a devilish halo. The crowd murmured in anger. Scotta was laughing.

Westonia’s neck was exposed. Mottled, purple oblongs. Bruises. Mouth-sized. Fading, but clear. Several days old.

‘Lang...’ Koz gestured to her neck. ‘Philip Lang. I knew him. He was a friend.’

Westonia’s face twisted. Catching the the tenor of Kozilek’s tone. ‘Was?’

‘He’s dead.’ A new voice. Masculine. Sharp as a cavalry sabre.

The voice slashed the mob in half. Revealing an open door at the back. A man approached. Lean. Military uniform. A General. Sheathed sword at his side. Imperious nose. Leonine hair the shade of a dead shrub. Familiar Habsburg lips. Wide, predatory eyes.

Koz laid a thumb on the safety catch. ‘You’re here.’

‘Yes.’ Matthias nodded. ‘I’m here.’

Two women behind Matthias stepped into view. Modest woollen cloaks. Yellow circles. The younger leaning on the older for support.

Koz eyed them. Miriam was still. Adara was grinning.

Matthias extended a gloved hand back towards the door.

In Matthias’ presence, the mob was a statuary. Koz looked back at Westonia. Splayed against the wall.

Koz whispered. ‘I’m sorry.’ She couldn’t hear him. Looking at nothing.

Koz and Pesach followed Matthias through the cellar door.

Back room. An ersatz office, bare as Maisel's. Darker. Swept, but still dirty. A lilt of perfume in the air. Grimy lantern light. Hushed, but not in reverence. Matthias sat behind his cracked and rotting desk.

Koz pulled up a stool. Adara and Miriam took chairs against the left wall.

Matthias snapped gloved fingers. 'Kozilek. This is a private meeting. Have your servant close the door.'

Koz turned. Pesach was closing the door to the back room. Shutting out the eavesdroppers. Through the crowd, Scotta's eyes held the jealous fire of the devil himself. Then Koz glimpsed Pankratius Roder. Smoking his pipe, watching Koz. Face inscrutable. Then he was gone, and Pesach took up position in front of the closed door. Calm as the Rudolfine golems in Vladislav Hall.

But there was another golem. Standing next to Pesach.

'Beautiful, is it not?' Matthias cooed.

Its back was to the wall, beside the door. Hidden from the mob. Face painted, but not to blend in. Too colourful. Vibrant. Ostentatious. Human by decoration. An 'M' embossed on its chest.

Matthias flicked a wrist at the two women. 'The M will be concealed under a doublet, of course. At first.'

'Oh?' Koz stifled his panic. 'And what comes later?'

'The revolution.'

'So that's what this is all about. Hominem Mundi. It's not about the people. It's about power.'

'You cannot rule without both.' Matthias settled back in his creaking chair. 'I'm glad you have come here to volunteer. My golemsmiths have already recommended you.'

Koz gaped. Miriam stared at the ceiling. Adara winked.

Matthias went on. Pampered obliviousness. 'When I hired Miriam and Adara, they stressed to me how important it would be to train a brand-new golem. They told me how clever you are. That you vanquished Kelley. That you know Prague.'

'You want to enlist me.'

'Yes.'

‘To train... a golem. Your golem. That these two Jewish women made.’

Koz looked back at the extravagant thing. Standing beside it, Pesach looked more human than ever. Pesach reached a hand out towards the golem. The golem shook it, movements stiff.

‘When it is ready.’ Matthias clapped, once. His golem dropped Pesach’s hand. Gave a halting bow. ‘See? Well on its way.’

‘What do you want, exactly?’ Koz caught Miriam’s eye. ‘To take him into dark places? Bring them into the light?’

‘Not the phrasing I would choose. But if you like.’ The desk creaked as Matthias leaned forward. ‘Scotta assured me you would come to Hominem Mundi eventually.’

Koz turned back to the Habsburg. ‘Actually, I came to speak with Westonia. Wasn’t quite finished.’

‘Well now you’re here to speak with me.’ Regal statement of fact. Mouth twisted, sour. ‘I’m sure you’re aware of my political situation. My brother and I have been in a state of open hostility since the century began. However, the Vatican has recognised me as the true head of my family. They are dismayed by Rudolf’s interminable pandering to other religions. Unlike Rudolf, who has turned his back on our religion, I pray to our Lord God for guidance and humility.’

Koz frowned. Leopold, meeting Rudolf’s court secretary in the Diet Hall. Secretive. Covert talks behind closed doors. ‘If you’re the head of your family, why aren’t you in charge?’

Adara stifled a snicker.

‘In time.’ Matthias sniffed. Grim eyes wandering the cobwebbed ceiling ‘The paltry number gathered in this Jesuit cellar is only the tip of the anthill. The result of two years of effort. Two years of poking at golems. Testing them. Two years sowing dissent amongst the people of Prague. My people, by right. I promise you, it was not easy. I sleep no better at night for having done it.’

Koz felt a chill. Veins pumping icy water. ‘Krocín Fountain. Last year. That was a test.’

‘Lang’s idea. That man was truly a mixed blessing.’ Brushing dirt from a spotless lapel. Responsibility shed with a flick of the wrist. ‘Unlike Scotta, for every two Lang

converted, he pushed three away with his posturing. When Lang never made it to Ústí, I happily assumed he had been killed with the others.'

'Oh, they got him.' Westonia, slumped against the cellar wall. Blue eyes empty. 'It all caught up to Lang eventually.'

'Is that so.' A hint of mirth.

'All so you could make people hate golems. Hate Rudolf for making them. So you could take the throne, and replace his golems with your own.'

'Only a fool would ignore their raw potential.' August eyes flashing. 'My brother has mishandled them. But they are the future.'

Koz shook his head. It felt so heavy. 'A castle is a castle.'

Matthias' nostrils flared. 'And what would you do? Destroy them?' Pupils black as loaded arquebuses.

Adara and Miriam fixed on Koz. Inscrutable as owls.

'It's what Scotta wants to do... what the *people* want to do.' Pesach's silence pressing heavy against his back. 'But... you're right. We can't destroy the golems. They're here now. For better or worse.' Koz wagged his jaw. 'But the people you've tricked into following you? They're right. Scotta is right. I didn't see it at first. Maybe I was too concerned about keeping my own head out of sight. But Rudolfine Prague isn't fair. Your brother set the golems loose without thinking about how it would affect things. If you don't think about it either, if you don't share power with the people you've promised it to, you're no better.'

Matthias steepled his fingers. Mask of diplomacy falling into place. 'I formed Hominem Mundi because I am a man of the people. A role I take seriously. When I am Holy Roman Emperor, I will redress this balance. Rudolf's golems need not be eliminated.'

'Just replaced. That's why you need Adara and Miriam.'

'To go back to the source.' A lupine smile. 'Jews created the first golems. The Guild, the Rudolfine Court... intelligent amateurs. Mimicking the true calling of others. Only a fool would deny how much power the Jews hold.'

'The first *golems*. Not just one.' A tight shock ran through Koz. Feeling Pesach's eyes watching him from behind. 'You found another Yossele, didn't you? Another original golem. In Poland.'

The Habsburg's eyes flickered. A grudging nod. 'It was made in '83. Almost thirty years ago. Very few people know. Rudolf foolishly bartered control of Poland away in '98. He has had no footing there since. But I have.'

'But then why does Prague matter? You have your own golem. That's more than most of Hominem Mundi can claim. Isn't that enough?'

'I need the Vltava.' Matthias bridled. 'I need the throne.'

'But you're royalty! A *Habsburg*!' Koz spat the word. 'The only thing Rudolf has over you is golems, and you've proven they're not just his. Is the throne really that important?'

'Do not presume to know what is important to me.' Syllables falling like icicles from the shaken eaves of a winter roof.

'Rudolf doesn't care about running things, he just cares about the benefits! Why should there be a revolution?' Koz realised he was standing. Hot itching scrambling at the back of his head. 'Nobody has to die! Slake Rudolf's ego. Keep his desires fed. He's melancholic. Why wouldn't he let you run Bohemia for him?'

'Oh yes?' Matthias's hand drifted to the hilt of his sword. 'Is that all you think me worthy of? Common affairs?'

Koz laughed. 'A man of the people! A man of the people indeed.'

Matthias rose stiffly. 'I invited you here to obtain my measure of you. You have satisfied my curiosity.' Vibrating with anger. 'You are unfit to train the first Matthiasian golem. I insist that you leave immediately.'

'Oh I will.' Koz twirled his cane. 'But before I go. Two years ago, the last time you came here, you came with an army. You made a play for the throne, and you walked away with bloodless hands. But without the Castle's intervention, the Old Town mob would have torched Jewish Town and trawled the ashes. So tell me. In front of these two Jewish women. In your revolution, will the Jews be safe?'

Miriam picked at her ravaged nails. Adara grinned. Pesach stared ahead. Furious? Distant? Adamant?

'Rudolf granted them freedom of religion. I won't take that away.' Matthias smiled through clenched teeth. 'And whether I have an army or not, Kozilek, is none of your concern.'

How the Maharal Brought about the End of the Golem

This is not a story about golems.

But it is a story about the end of one.

It was many hours past midnight, when the Maharal led Rabbi Yaakov Sasson and Rabbi Yitzchok Katz to the attic of the Old New Synagogue. Rabbi Yitzchok Katz the sofer, great student of words. And Rabbi Yaakov Sasson, who had knowledge of alchemy. Of fluids that burn like fire. The golem had been asked to sleep up in the attic this night, with no further explanation given. For Yossele, the order was simple enough.

'Will his death make us impure?'

To this question, the Maharal had no true answer. The golem would be returned to dust, inanimate. If it was never truly alive, said the Maharal, how could it be dead?

The vile mastermind Thaddeus had been defeated. The blood libel had been forever dispelled by the merciful decree of the Holy Roman Emperor.

What use did the Maharal have of the golem?

The old shamesh Avrohom joined them in the attic that night, standing at a distance. Two lit tapers in hand.

'If something is built for purpose, something clever and resilient — what use is it once that purpose is gone?'

Avrohom, the old shamesh, old and infirm, could come no closer. The calm face of the sleeping golem held him at bay.

In Gans' version of the tale, he speaks of the reversing of the ritual. How three men undid what they had done at the banks of the Vltava. Undoing fire, water, and air, and taking them away from the flesh of the earth. How this holy man and two took someone that the people of Prague

thought to be a man, and turned him back into a lump of clay. How they wrapped the inert body in a prayer shawl and stuffed it beneath a pile of broken holy texts.

Gans tells with sadness how Yossele was asked to sleep in the attic by his master, never to awake again.

Three men walked around the golem that night, chanting their incantations, thinking the golem asleep.

But what is sleep? What do you hear in the night? What do you dream?

Perhaps it would interest you to know.

Speak no more of similarities. Dream no more of bridging the boundary between. Clay in the shape of flesh is not flesh, no more than a portrait of the Holy Roman Emperor is a man. Or a pile of fruit.

Impurity is as impurity does. Yossele the golem was unmade that night.

And now the Maharal is gone. And so much has gone with him. And this is the story that is told. This is Rabbi David Gans' tale of the golem of Prague.

Do not think I have skipped to the end. There are more stories I would like to tell you.

But what is a story?

Chapter 19

Old Town streets. Subdued under a cloudy night sky. Old Town Square's sussuration, the rumblings of hate at the Jewish Town gates, all muted here. All far away. A lazy breeze licked the air. The taste of the Vltava.

Adara and Miriam, walking Koz and Pesach home from the Klementinum. They'd caught up to Koz after he walked out on Matthias. No sign of Westonia, in the cellar. No Roder. Only Scotta's caustic glare in the mob. Searing Koz like the bath at a tannery.

The four meandered. Both women looked poorly, Miriam clutching her head, Adara her abdomen. Adara walked with Pesach's support. Koz worked his cane with shaking arms. Pulling his mandilion tight. Capotain low over his face. They walked empty Old Town streets, too late for foot traffic, too early for the nachtkrapp. Old Town's doors were locked tight. Sealed in fear. Fear of a child killer, running loose. Fear of the Jews. Of Hominem Mundi. Everywhere, hesitant candles glowed behind closed curtains. Cobblestones under lanternposts glowing with grimy light.

Koz shook the fog from his head. 'How long has...' He paused. Glanced up at overhanging likho. 'How long has your client been in Prague?'

Adara gave Koz an approving nod. 'Not long.' She clung to Pesach's wrist, his plinth beam arm outstretched. A gentleman. 'Our client brought us here two weeks ago. Hired us back in Nisan.'

Sometime around April. 'And now you're in his pocket.'

'He found us.' Miriam rubbed her temples. 'We agreed to be used.'

Adara scoffed. 'We're using him back. It's mutual. Purely transactional.'

Miriam pinched the bridge of her nose. Complexion the colour of moonlit clouds.
Koz reached out. 'Do you need a physician?'

'Just a headache.' A brave smile. Hollow.

A few more wandering steps. Koz raised his gloved right hand. 'I never thanked you for these.' Fanning out his five fingers. Three flesh, two clay. 'For what you did for me.'

'You're welcome.'

'Is that how it works? For Pesach, for the other golem? Adara works the scroll, you work the clay?'

'It's not work.' Miriam gave Pesach a motherly glance. 'It's a labour of love.'

'But your client is still using you.'

Miriam brought out a handkerchief. 'Not all love is healthy.' Blowing her nose. 'He knew of my... prior accomplishments. Making a form. Bringing something seemingly dead to life.' Folding the handkerchief in sallow hands. Ring of discolouration around her empty wedding finger. 'He also knew that tragedy had claimed my family. That man has an eye for weakness. He knew that if this job was happening, I couldn't refuse. I couldn't let someone else make my old mistakes.'

Her eyes thickened with sorrow. If there was more to tell, Koz couldn't ask for it. Miriam's silence, their silence, was filled quickly by their footsteps. The subtle sounds of the city at rest.

Koz kicked his cane towards Adara, pointing it at her. 'What's in this work for you?'

'Me?' Waiting to be asked. 'I have a debt. Our client is paying it.'

'You borrowed money?'

'Not quite.' That brash smile. Abdominal pain seemingly forgotten. 'I'm good with numbers, good with logic. Good at figuring out the likelihood of things. Word got around. I was asked to assist with something. A kind of... mechanical predictor. Rudimentary. It was good money.'

'Shouldn't these people be in debt to you?'

'I suspect they would be. If it'd worked properly.' No hint of shame.

'So what went wrong?'

A demure sniff. 'I miscalculated some things.'

Koz looked at Pesach. Fists like hammers, tough as anvils. 'How badly?'

'Not the machine! The people that hired me. I discovered they wanted to use the predictor for gambling.' Adara adjusted her grip on Pesach with ink-spotted fingers.

'Unconscionable. Such a waste.'

'What happened?'

'It broke.' Throwing the words away with studied innocence.

'But not before being used. Getting them in debt. Right?' Adara didn't reply. 'A debt they feel you owe.'

A fleeting smile. 'If only it had been made of clay.'

They walked, Adara watching her feet. The young genius mindful of every careful footfall on the cobblestones.

Pesach stopped them. Signalling something to Adara, his thick fingers dancing. She nodded. Stepped away. Miriam took Adara onto her arm. Pesach crossed the street. Stopped in front of a tall building. Looked up. A likho, on its corner. A beautiful caryatid. Pesach lay a hand on the stone wall before him.

Koz tilted his capotain down. Turned to Adara. 'What did he signal to you? What's he doing?'

'What he wants.' Adara wiped an errant ebony curl away from her forehead. 'He said it won't take long.'

The three of them stood in the middle of the street. Koz blew air between pursed lips.

After a while, Koz looked to Adara. 'You said we had a shared enemy. Not just the people behind the blood libel. Who?'

Adara looked towards the direction of the Castle. Looked back at Koz.

Koz frowned. 'But look at who you're working with. Surely you don't think your client is better.'

'I think our client asked *us* to make him a golem.' Smile savage. Pointed like a licking flame. 'And he could be relied upon not to figure out what we were actually doing. Using his resources to make our own golem, in secret. He thinks we're a means to an end. It's mutual.'

Koz chewed on this for a moment. 'Okay. Where did you get the clay?'

Adara inspected a dainty hand. 'There are black markets for such things. The golem we gave our client is mostly willing clay, watered down. Common. What thinking clay it has was skimmed from the golem that used to be Pesach.'

‘He used to be *bigger*?’ Massive hand flat on the tallest building in the street. Motionless as a turret, and just as obvious. ‘How did you ever hide him?’

Miriam tutted. ‘You don’t think he always looked like that, did you?’ A weary sound. ‘Not that it mattered, in the end. All you need to do to be invisible around someone like our client is to wear the right clothes.’

‘You couldn’t have made your client’s golem invisible? Damn thing looks like a bird of paradise.’

Adara laughed. ‘*Lovely*, isn’t it?’ She clapped on Miriam’s shoulder. ‘It’s everything that man thinks he wants. Obedient. Completely thoughtless.’

‘Not completely.’ Miriam looked up at the likho on the corner. ‘Nothing with a mind as part of its body can be thoughtless.’

Adara clicked her tongue. ‘You know what I mean.’ By the disappointed look on her face, Miriam did.

Koz tugged his beard. ‘But his golem is designed to serve him?’

‘Mostly it just serves him food.’ Adara grinned. ‘Sweeps his office. Makes him feel important. But you needn’t worry. It’s no Pesach.’

‘So there’s no M lurking under Pesach’s tunic?’

Miriam shrugged with her free shoulder. ‘That’s up to Pesach. Unlike the golems of Prague, he’s not servile. He’s made to learn, to choose. All we ask is that he teaches this choice to others.’

‘Well I’ll tell you this for free. Vorel is going to be disappointed. She thinks your client hates the Jews.’

‘Ha!’ Adara spat, indecorous. ‘He hasn’t any love for us. We just have something he wants.’

Miriam looked to Pesach. ‘And he’s not getting it.’

Koz stared at the back of Pesach’s head. Still and silent as the clay fusilier. Koz rubbed the back of his neck.

‘How do you get a golem’s head open?’

‘By striking near the back of the head. A common design choice.’ Adara narrowed adroit eyes. ‘Usually.’

‘Usually?’ Koz motioned towards Pesach. ‘What about him?’

‘Does he look common to you?’

The silence grew thorny between them. Koz spun his cane. Adara adjusted the long pins in her hair.

Koz glanced up at the likho. Observations spooled, unspooled. All fed into Brahe’s machine in the Jupiter room. Golem words washed away like leaves on the Vltava.

Koz looked to Adara. ‘Golems think with their bodies. With their clay.’

‘Correct.’ She didn’t look at him.

‘What about other machines? Things of metal and wood?’

‘Those are just objects.’

Miriam spoke up. ‘But so are the dead.’

Adara worried at her lip a moment. Conceded the point with a tilted head.

Koz drummed gloved fingers against his cane. ‘There’s a machine at the Castle. Made by Brahe. Full likho scrolls go in, empty likho scrolls come out, to be reused. I’m worried this machine remembers what it’s seen. I’m worried it *knows*.’

Adara scoffed at this. ‘*Kozilek*. Someone writes down everything you do, *all your actions*, and collects it in a diary... then they put this diary on some kind of mechanical bookshelf... and you’re worried what the *bookshelf* thinks?’

Koz shut his mouth, cheeks hot. Tongue glued to the floor.

Miriam rubbed her temples. ‘I doubt Pesach will be much longer. I’m sure you’re looking forward to getting some rest at the White Lion.’ Speaking to Koz without looking at him.

‘I just...’ Koz spat out his anger. Breathed in, exhausted. ‘I need more time to think.’ Leaning on his cane with aching palms. ‘You don’t need Pesach and I to walk you home?’

‘It’s not far. We’ll manage. We’re staying at the House of the Green Mound.’

‘Oh.’ Koz froze. ‘Are you.’

‘It’s lovely. Edward Kelley used to live there, apparently.’

‘Did he?’ Face still. Wearing a faint smile.

Adara gave Koz a wicked look. ‘You were outside, you know. On the Shabbat. Staring at one of our high windows. You made a frightful racket.’

‘Did I.’ A single bead of sweat marched down Koz’s back.

'I called out to you. You called something back.' Adara smirked. 'It looked like you saw me.'

Koz's face was on fire. 'I don't remember.'

Adara gave an insolent shrug.

'Maybe it was a dream.' Koz felt his smile faltering. 'Like golems do, on the Shabbat.'

'A human word for a golem phenomenon! I said to you that golems "dream" because it's the closest word we have for the truth.' Adara laughed at Koz. 'You're *human*. Smelly and mortal. Don't forget it.'

Pesach returned.

Koz glared at the golem. 'What was that about?' No answer. Adara stepped up to Pesach and hung from his arm. Koz ignored Adara's eyes. Poked Pesach's sculpted fist. 'You've got to focus. Maisel's audience with Rudolf is tomorrow evening. We've got a blood libel to solve, and we're running out of time. Understand?'

Pesach nodded. Adara stuck out her tongue. Together, they walked away.

Koz and Miriam followed behind. Koz spared a glance back at the tall building Pesach had touched. At the likho on its corner. From that height, that angle, it could see down the horseshoe-shaped street that led to the Maisel Synagogue.

They wandered through Old Town, two by two. Obscured by noiseless streets, the drunken, heedless song of Old Town Square revelry lilted ever closer.

Miriam touched Koz on the shoulder, making him jump. 'We don't regret finding you, Kozilek. We don't regret sending Pesach to accompany you.'

Koz put his smile back on, but it fell away. 'Maybe you should. I really am just a thug. A common rook with an eye for deception.'

'But you recognise that.' Miriam squeezed Koz's arm with a delicate hand. 'You're allowed to change. It's as the Maharal said. The true sign of strength is not in triumphing over others, but in triumphing over yourself.'

They passed a familiar alley. Koz stopped at its slender mouth. Too dark to see to the end of its gullet. To see if the city had swallowed and digested the bleeding clay corpse. The murdered missive golem Koz had watched die.

Koz turned to Miriam. Letting Adara and Pesach walk on ahead.

'Have you ever heard of a magic mirror?'

Miriam shook her head.

'It's... a kind of trick. Scotta used it all the time, when I was young. In Cologne, he used it to fool Archbishop-Elector Gebhard into "seeing" the Protestant Countess Agne of Mansfield. Gebhard fell in love with her. Almost sparked a war.'

Miriam frowned. Patient. Koz stared back down the alley. Urban penumbra staring back.

'Scotta, Kelley... they think they're unique, but we're all the same. Greedy charlatans peddling impossible reflections. Showing people what they desperately want to see. People like that all come to the same end.'

'Which is?'

Koz rubbed his neck, shuddering. 'Kelley... when he died a disgraced fraud, I was nowhere near him. Never met the man. I was roaming around Italy with Scotta. But everyone was talking about Kelley's downfall, and thanks to Scotta, I knew what kind of tricks Kelley used. So... I told people that I was the one who defeated Kelley.'

'Why?'

'I needed the notoriety. I *wanted* it. It seemed such a small lie, at the time.'

Miriam flicked a wave of stray chestnut hair from her forehead. 'How did you end up in the company of Scotta? Roaming Italy with a fraud?'

Staring down at an empty grave. What could it see?

Run. Run from Prague.

Run, anywhere

Koz stabbed cobblestones with his cane. Rapier rattling angrily inside. 'It doesn't matter. What matters is, the Kelley story got away from me. And now Kelley's stepdaughter Westonia hates me, and her son is dead.'

Adara's voice. Brittle. 'But if you didn't defeat Kelley, then who did?'

Koz looked up. Pesach had appeared, Adara cradled in his arms. Her ink-blackened hand pressed gently against her abdomen.

Koz cleared his throat. 'Kelley's downfall wasn't a David Gans tale. There was no hero to be celebrated. Kelley defeated himself. Made promises to Rudolf that were impossible to keep.'

‘So...’ Adara’s voice sharpened. ‘You’re a fraud.’

‘People weren’t meant to *believe* it!’ Koz hurled his black cane down at his feet. It bounced, clattering away. ‘The lies I told about Kozilek and his adventures in Prague were never meant to come true. Scotta was never going to bring me back home to Prague! What did it matter?’ Stumbling over to his cane. Scooping it up. Red-faced. ‘But when Scotta’s lies caught up with him... I didn’t know where else to go. He was badly wounded. And it changed him.’ Koz slumped against the alley mouth. ‘Or I thought it did. And before I knew it, I became the words in my head. A famous stranger. I didn’t need Scotta anymore. The clay followed the scroll. I was Kozilek, now. That’s all I am.’

Adara and Miriam were as silent as Pesach.

Koz fell into a kneel. Ripped the black capotain from his head. Tossed it aside. Looked up at the nearest likho, a wizened telamon. Staring into its eyes. Its grimacing face. Daring. Waiting.

The likho, motionless on its edifice, stared back.

It was a long moment before Koz felt it. Faint caress of fabric across his wispy hair. Pesach was kneeling beside him. The golem had put Adara down, and she was leaning on Miriam. Pesach carefully wedged Kozilek’s sugarloaf hat on top of his head. Tilting it to hide his face from above.

Koz looked up at the two women. Yellow circles stark in the lanternpost light. Both looking down at him. Reproachful? Questioning? Judging?

Koz let Pesach lift him up. Take him into his arms.

Pesach carried Koz through Old Town. Jewish women in tow. All the way to the fringes of Old Town Square. All the way home.

White Lion. Silent and dark. Nobody home. Pesach set Koz on the ground. Koz fumbled for his keys.

‘Wait!’ Adara stepped away from Miriam. ‘Don’t unlock it. I want to test something.’

She hobbled towards the door. Her yellow circle came free, unnoticed. Falling underfoot. When she reached the door, Adara pulled out a reddish-brown shape the size of her palm. It bent in her hand. Clay. Malleable, but staying flat. Rectangular.

She pressed it against the lock. Tapped on it three times. Nothing happened.

An irritated noise. She peeled the clay strip away. Tiny clay fingers withdrew from the keyhole. Adara pulled a long pin from her hair. Poking at the flaccid strip of clay. 'It's really close.' A minuscule scroll emerged. Adara peered at it. 'There won't be a lock in Bohemia that'll stop this once it's finished.'

Koz shivered. Unlocked the door. 'Goodbye.'

'Kozilek.' Miriam reached out, stopping him. Glancing back at Adara. 'I think you deserve to know. Who Pesach used to be. Before he was Pesach.'

Adara didn't look up from her tinkering. 'Why should he care? Pesach wasn't made by the Maharal. Who we *haven't seen*, by the way. In Poland. Anywhere.'

'But the golem we used to make Pesach was made by a rabbi, in Chełm. Eliyahu Ba'al Shem.' Miriam bent down and picked up Adara's fallen yellow circle. Its pin still skewering the material. She handed both to Pesach. 'Eliyahu made his golem in '83, the same way that the Maharal made Yossele. But, his golem... it didn't live long.'

Pesach moved to Adara. Supporting her with one massive hand. The other placing the yellow circle against her chest. The gentleness of a giant.

Miriam held Koz by the shoulder. 'You mustn't treat Pesach differently for this. Do you understand? It isn't his fault.'

Pesach pinned the yellow circle back on Adara. Adara yelped, the pin piercing too far. Striking flesh. Giving Pesach a reproachful look, Adara took the circle and pin from his hands.

Miriam tightened her grip on Koz. 'Eliyahu made his golem to fight against anti-Semitism. Stood his nameless creation in the Chełm's town square. Wielding an axe. Threatening anyone who spoke out against the Jews. But his golem did more than threaten. People died.' Miriam's sallow grimace was spectral. Wraith-like in the low light. 'Eliyahu *tried* to stop his golem, to kill him. To tear the holy letters from his head. He succeeded. But in doing so, the golem fell upon the rabbi and crushed him to death. They were buried side-by-side. Father and child. *This* is the golem we dug up. *This* is the golem who Pesach, before he was Pesach, used to be.'

Koz looked up at Pesach. Pesach stared down at Adara, watching her inspect the bloodied pin. Face blank against the overcast sky.

Chapter 20

A tall figure in a graveyard. Broad shouldered. Simple tunic. Rope belt.

Not a saviour. A monster. Staring down at an empty grave.

Turning to face Jan.

What could it see?

Koz awoke, sitting bolt upright. Bedroom muggy. Overcast morning. Hot. Flimsy blanket sticking to him, clammy, thick. He threw it aside.

Pesach wasn't Yossele. The golem in his kitchen right now wasn't Yossele.

He was the murderous Golem of Chelm.

Run. Run from Prague. Run, anywhere. Anywhere else in the world.

Run from what you can never undo

Koz ran shaking fingers through unkempt hair. Fumbled at his bedside. Knocked over his jar of bear grease. Grabbed the water jug, perched atop Bruno's *De magia*. Drank deep. Wiped silty water from his moustache with the back of his hand.

Leaving the silver watch for them to find

Koz stood, swaying. Smacking his cheeks, sharp pain to drive away the nightmare. Struggled into his clothes. Pulling pungent fabric over stiff scars. Tugging on his boots, his glove. Stuffing the three stolen clay fusilier scrolls from Golden Lane deep into his doublet. Maisel's signet ring around his neck. Opening his door.

Chiara stood before the door, hand raised to knock. White nightgown. Her black hair a silver-veined halo. Eyebrows high.

'Oh.' Koz cleared his throat. 'You're home.'

Chiara glanced behind her. 'There's something you need to see.'

Koz shook his head. 'We need to talk about last night. The Klementinum. I saw you.'

Roder's eyes widened. Hands falling to her hips. 'Ah! Well I saw you.'

They watched each other with faces of stone.

Chiara broke first, letting out an exasperated hiss. 'Shouldn't you be saving your anger for murderers?'

'Matthias is a murderer.'

'Just come to the kitchen!'

'Why? Is Matthias there?'

'Should I expect him to be?' Crossing her downy arms. 'Ah! Perhaps you have another meeting with him. Should I set the table?'

'I found Hominem Mundi because I was investigating the blood libel! What's your excuse?' Koz leaned close to Chiara. Voice a furious hush. 'I thought you *cared*. About golems. About Pesach.'

Chiara flicked this away. 'Scotta and his words make up the worst of us. But many in Hominem Mundi only hate golems because they are without them! Matthias will change all that. He'll return power to the people.'

'Does it matter to you how he gets that power?'

'Does it matter to *you*, how you achieve your ends? I hear you killed a man in New Town.'

Koz glanced down the hallway, towards the kitchen. Where Pesach surely waited. The murderous Golem of Chelm. 'That Golden Fleece assassin killed Lang. Would have killed me.' Pesach in the Argil Ring, hefting an axe with practised ease. Impassive. But obedient.

'And how many more will die before you get your answers?' Chiara bore down on him. 'When those above press down on us, and people die, we call it governance. Where is that generosity of language when we push back? What should we call it then?'

'*When* you push back? Is Matthias planning something?'

Haughty. 'And I should share this with you *why*?'

Koz bared his teeth. *'Matthias isn't one of us.* Just because he's hiding on the bottom, doesn't mean he's going to lift his hands and raise you to the top of the hill. Habsburgs live above, die above. He's just pulling strings.'

'You don't know that. You don't know Hominem Mundi.'

'I know Matthias was behind the Riot of Krocín Fountain. Matthias, and Lang.'

'I — ' Chiara faltered. Eyes quizzical. 'Are you certain?'

Koz swept past her. 'Scotta may be the worst of Hominem Mundi, but Matthias is no better. When Matthias is in power, he'll keep it from the people. And he'll remember you. All of you.'

Koz stormed into the kitchen.

The surface of the kitchen table was ruined.

Deep lines had been carved into the table's surface. Shapes. Symbols. Wood shavings clinging to their edges like dead skin.

Pesach, beside the table. Watching Koz approach. That same refractory look. Terracotta fingers coated in splinters.

Chiara joined Koz beside the table. *'Now* do you see?'

Koz nodded. Then shook his head. Reeling as he tried to follow the lines.

Chiara leaned over the table, blowing on it. Scattering wood shavings. Unearthing Pesach's message in its entirety. Particles drifting above it like ash after a conflagration.

Carved in the centre, the Shield of David. Other shapes orbited it. The Rudolfine 'R', the Golemsmith 'G'. The hung ram of the Golden Fleece. All close. Then, separate to all, two circles. The same size and width of the yellow circle of the Jews.

Koz looked up at Pesach. Pesach's eyes tracked wood shavings floating in the air. Tiny wooden stars dancing above a handcarved landscape.

Chiara traced an etched line. A perfect circle. 'He should have been an architect.'

'Well. Let's see what he's built for us.' Koz peered down at the table. Swallowed, tongue thick. 'Pesach. What does it all mean?'

After a moment, Pesach met Koz's eyes. The golem pointed at Koz's chest. Koz looked down. A lump, under his grey doublet. Maisel's signet ring on its thin cord.

Koz pulled the ring out. Handed it to Pesach, watching the golem's huge hands. Brick-thick, but gentle. Precise. Able to drive a fingertip through wood.

Or an axe through a body. Koz wiped clammy sweat from his forehead.

Pesach placed the signet ring on the Shield of David. Looking up at Koz. Koz looked back, dumbfounded.

Chiara piped up. 'That's Maisel's ring! So...' She pointed at the middle of the table. 'Does this here mean Maisel?'

Pesach nodded. Pressed a broad fingertip against the table. The Golden Fleece ram. He then drew a line across the table, from the Golden Fleece to the Shield of David. Fingertip grinding through wood like a foot pushing through sand.

Koz frowned. 'The Golden Fleece... how are they connected with Maisel?'

Pesach spoke. Parroting Maisel's words, Maisel's voice. 'Something dangerous at my synagogue.' Maisel had said it to them in Jewish Town.

'Maisel Synagogue. Golden Fleece.' Koz tried to catch Pesach's eye. 'Are you saying a member of the Golden Fleece killed John?'

Chiara chewed a fingertip. 'Or just went inside?'

Pesach placed two fingertips against the table. Drawing two lines, from the two distant circles. Connecting them now to the Shield of David.

Koz rapped against the table with leather knuckles. 'Two yellow circles! The Samuels went inside the synagogue. Maisel said his nephews found the blood libel.'

Pesach placed his fist on the table, face up. Opened it. Peripteral pillars tumbling away from a falling temple. Pesach's exposed palm bulged, parted. Near the dent where he had caught the arquebus bullet. A crumpled ball of fabric emerged through his palm. Protruding through his golemflesh. Brought forward from within.

The bloody yellow circle from the Maisel Synagogue alms box.

Koz took it. Walked to the mantelpiece. The bloodied pin, which Koz found on the floor of the Maisel Synagogue, was still there. Koz skewered the pin through the circle. Placed them together on the table. On the Shield of David.

Pesach placed a palm over one of the circles. Hiding it. He then retraced one of the lines back away from the Shield of David with the other hand, back towards the two circles... back towards *one* circle, one hidden.

Koz pointed at the hidden circle. 'Two there, one back?'

Pesach spoke. 'Does this yellow circle belong to Samuel the Younger?' Kozilek's voice. Kozilek's words.

'Ah!' Chiara clapped once, bright and sharp. 'So. A Knight of the Golden Fleece entered the Maisel Synagogue. Perhaps with John. Then two Jews entered. Maisel's nephews. But only one left.'

Pesach traced the first line back, away from the Shield of David. Back towards the hung ram of Golden Fleece.

Chiara pointed at Pesach's hand. 'So... then the Knight left? But what about the second Samuel?'

Koz worked his mouth. Saliva thick as river mud. 'But they *both* left. Both Samuels went to Maisel that morning. Why would one stay?'

Chiara lay a bony hand on Pesach's rampart shoulder. 'Pesach? How do you know all this?'

Koz felt light. 'The likho. Near the synagogue.' He flailed for a chair. Lowered himself into it. 'Last night. You spoke to the likho, didn't you Pesach? The nachtkrapps took the scrolls out, the night of the blood libel. But Miriam said the clay remembers. You touched the building the likho was on, and you *talked* to it. You asked what it saw.'

Pesach's painted garnet eyes monitored wooden motes. Tracking the shavings that settled on every surface in the room.

Koz shook his head. It felt weightless. 'The outs. The killer thought that's all it would take to conceal their actions from the Castle. They knew enough about the likho, but not this.'

'Who?' Chiara plucked her lip. 'The second Samuel?'

'He left. We know that.'

'Yes, but *when*?' Pointing at the bloody yellow circle. 'And why leave this behind? Did he bleed on it? Is that why?'

Koz blinked. Last night, outside. Pesach pinning Adara's yellow circle to her chest. The pin piercing too far.

Drawing blood.

'The yellow circle.' Koz smoothed the circle against the ruined table with tremulous fingers. 'Samuel wouldn't leave it behind, blood or no blood. But if the killer took Samuel's circle, and pinned it to their own chest in a hurry...'

'But why would they do that? Why wouldn't Samuel just take it back?'

Koz looked up at Pesach. 'The killer needed it. For protection.' Pesach stared back. Skin that could not be burned. Lungs that knew no air. No essential flesh to pierce with knife or sword. Saviour of Jewish Town. 'He needed protection against the Samuels. And it *worked*.'

'Worked? Worked *how*?'

A knock, down the stairs. The front door. Pesach pointed at the 'R' inscribed on the table. The Rudolfine Court.

Koz flexed his fingers. Glove tight. 'It's the Castle. I asked Barvitus last night to send for me if he had news.'

Chiara was agog. 'What? The Castle can wait!' More knocking, down below. Getting louder. Chiara yelled down at them. 'Go away!'

Koz rose. 'I have to answer it.'

'Ah!' Chiara threw up her hands. 'But of course! The obedient Kozilek. Collector for the Castle!'

'Would *you* rather answer it? What if they already know about the company you keep?' Koz glanced down the hallway at their rooms. 'What if they want to come up?'

They both listened to the knocking. Hammering. Growing more insistent.

'Chiara. You should *hide*.'

'Is this how you think it happens?' Chiara's lip twitched. A failed smile. 'I join Hominem Mundi, consult with Matthias... and when the Castle comes for me, they're polite enough to knock? To leave me alone if I hide under the bed?'

'Is this how you want to find out?'

Chiara rubbed her cheek with a calloused hand. Measuring Koz with an architect's look. Searching for structural strengths. Weaknesses. Those same eyes Koz had seen at Hominem Mundi. Surveying him through the cellar door.

'I'm answering the door. We'll leave immediately.' Koz fetched up his cloak, his cane. Unable to stand still under her gaze. 'And I'm not afraid to say Matthias' name at the Castle. But...' He paused at the stairs. 'I won't say yours. If you'll stop saying his.'

'And Hominem Mundi?' Her pupils shrunk to almost nothing.

'They're only as good as their figurehead. Their leaders.'

'Is that so?'

'Scotta *feeds* on things like this.' Jabbing savagely at the kitchen table with his cane. 'That man is a loaded arquebus. Can you honestly say you trust Scotta? That you trust Matthias?'

Chiara gave him a single, slow blink. 'Perhaps not.' Turning away. 'Ah... but wouldn't it be good, Kozilek? To have someone, among their number? Wouldn't it be good to have a friend?'

She walked to her room. She closed her door. She was gone.

The knocking downstairs was thunderous now. Koz looked to Pesach. 'We've got got a job to do. Thanks to you, I have the answer.' He let out a short breath. 'I know what comes next. Do you?'

Pesach picked up the yellow circle. With his other hand, he levelled a column finger at the 'G' carved into the table. Koz's face splintered into a grin.

Koz flew down the stairs, Pesach behind him. Outside, a waiting Castle guard. Brusque. Impatient. The grey sentinel ushered them into a waiting Rudolfine nadler-cart, its dun coat creamy in the morning glow of Old Town Square. It trotted them through Old Town, across Stone Bridge. Past Lesser Town. Up towards the Castle.

Koz tilted his capotain back in his head. Careless eyes upon the morning sky.

Chapter 21

Vladislav Hall. No customers yet. Scattered traders bustled about. Swapping pleasantries and jokes. Free samples of charm. Layering eccentricities on enticing stalls, readying them to be picked clean by sunset.

Barvitiuz waited for Koz at the western end. Freshfaced. Smiling. Embroidered doublet, mellow tones. Behind him, a solemn Rudolfine golem guarded the door to the Royal Palace. No melancholic cries from beyond. Not this morning.

The Castle guard left them with a crisp salute. Barvitiuz gestured a cordial greeting. Koz returned it, swinging his cane. Capering.

‘Kozilek!’ The court secretary let out a high laugh. ‘So glad you could make it.’ Extending a minuscule hand towards Pesach. ‘We haven’t met! I assume you’re an associate of my friend?’

‘Barvitiuz!’ Koz interposed himself between them. ‘Just the man I wanted to see.’

‘Oh!’ Chin retreating into his rounded neck. ‘You have news?’

‘Yours first. This is your house, after all.’

Barvitiuz reddened. ‘I... rather think this is his house.’ Gesturing to Arcimboldo’s portrait of Rudolf on the wall above. The hellish fruit basket stared down with glossy, black cherry eyes.

Koz feigned humility. ‘Sorry.’

Barvitiuz squeezed Koz’s shoulder. ‘Think nothing of it. Just remember where you are.’ Lowering his voice. ‘Tell me. Is your news to do with the case?’

Koz jittered under the court secretary’s delicate grasp. Trying to prolong this moment. ‘You first. What does the Castle want with the Collector this fine morning?’

Barvitiuſ gave Koz a ſimpering ſmile.

‘Kozilek.’

‘Mmm.’

‘We found him.’

‘Mmm?’

‘We found him. *We know who did it.*’

Koz ſtopped jittering. He blinked. ‘Wait. How did you find out it was Johannes Leo?’

This ſtartled Barvitiuſ. Pain flashed across his face like lightning on a clear ſky.

‘Johannes?’ Barvitiuſ rallied. ‘No! No, it was Jean Tagliavia d’Aragon. The third Duke of Terranova.’

‘*What?* Who — *what?* The man from the *duel?*’

‘The man who loſt the duel with Johannes Leo laſt night. You were there.’

Koz floundered. ‘Is that why Leo challenged him? Because d’Aragon killed John? Why wouldn’t Leo juſt tell the Caſtle to arreſt him? Why wouldn’t Leo tell *you?*’

‘Leo had no idea! The duel was invoked becauſe d’Aragon ſlighted Leo’s honour, in front of many wiſſeſſes. Mocking Leo’s poverty. Calling his membership illegitimate. This happened before Leo knew that his ſon John had been killed, but after d’Aragon had apparently done it.’

‘But *why?*’ Koz felt the room tilt. He grabbed Barvitiuſ’ warm hand, ſteadying himſelf.

‘Apparently d’Aragon was a vicious anti-Semite. He confeſſed to everything on his deathbed! That wound Leo gave d’Aragon, when he ran him through with a rapier... it killed d’Aragon ſlowly. Chittuſi tended to d’Aragon all night, but even Chittuſi’s knowledge of herbalism couldn’t ſave him. By early morning, d’Aragon became... repentant.’

‘No.’ Koz tilted further. Barvitiuſ reached out with his other hand. Holding Koz aloft. ‘No. Weſtonia was unfaithful to Leo. With Lang. So Leo killed their ſon in revenge. Stole him from his own window. He’s Rudolf’s representative with the Guild. He could make ſure the Old Town likho were empty that night.’

‘Kozilek!’

‘And then he had another Knight shoot Lang in the neck! Maybe d’Aragon found that out, and it sparked the duel. So Leo stabbed him. Perfect opportunity to quit the Golden Fleece. To save face. *It was Johannes Leo*. It has to be.’

Barvitiuss’ cheeks trembled. ‘You honestly think Leo killed his own son?’

‘*Listen to me!* Westonia hates the Jews. Maybe it rubbed off on Leo. Maybe he just needed a way to hide his revenge, a convenient way to cloak his spiteful murder of his own child. Leo faked the blood libel. *It makes sense!*’

Too late, Koz heard the echo. How loud he was shouting. The traders of Vladislav Hall glared at him as one. People with children of their own.

In Barvitiuss’ eyes, there was no anger. Just pity. Pointed and clean. A rapier through the belly.

Koz lurched back. ‘It makes sense.’

‘I’m sorry.’

‘It makes *sense!* I know my solution doesn’t answer everything —’

‘It answers *nothing*.’ Barvitiuss fretted at his handkerchief. ‘We have a written confession from d’Aragon. In his own hand. How do you explain that?’ He moved forward, and Koz backed away into Pesach. ‘You were right to think someone had been driven mad by hatred! You just had the wrong man. That’s all.’

Koz leaned back against Pesach. Closed his eyes.

Barvitiuss sighed. ‘I’m sorry. I thought you’d be pleased.’

‘Lang was shot.’ Koz opened his eyes. Head nestled back against Pesach’s chest, looking at the vaulted ceiling. Overlapping helical lines. Careful patterns. Meaningful. ‘Lang was shot, and Westonia had the same bruises on her neck. They shared them, something they did together. How do you explain that? How do you explain the assassination of Philip Lang?’

‘How do I explain the death of *Lang*?’ Incredulous caterpillar eyebrows crawling up his forehead. ‘A known criminal? A cheat and a liar? A suspected murderer?’

‘A murderer who worked for the Castle! He was a nachtkrapp! Either he was killed for helping me on the case, showing me the outs, or because he was with Westonia. Or both!’

Barvitus flapped his hands, helpless. 'Similar bruises do not an adulterous tryst make! And the outs were routine maintenance. Lang would hardly be killed for revealing that! The Guild is always improving the likho scrolls.'

'That *exact* night? Well what about the guards that Vorel posted? What about —'

'What does any of this have to do with Leo?'

'What does any of this have to do with the third Duke of Terranova?'

Barvitus shrunk back. Sparkling eyes brimming with fear.

Koz panted into the silence. Propped up only by his cane. All around Vladislav Hall, traders ignored the tumult by making their own. Eager anecdotes. Nervous laughter.

Barvitus wrenched at his handkerchief. At the lump within. Brahe's nose, held tight. 'Kozilek... this isn't one of Gans' stories. You're not the Maharal, you're not Yossele. You can't know everything. You can't *solve* everything.'

A man swept past Koz. Elegant silk robe draped over bony shoulders. Emaciated face sagging. Eyes purple with fatigue. Chittusi.

'I have done as you asked, Barvitus.' The Lesser Town burgher lay a confiding hand at Barvitus' back. Ignoring Koz. 'I have cleaned the body of Jean, my poor brother knight... the wound in his belly, the infected wound on his breast. He will be embalmed shortly.'

Barvitus gave a feeble nod.

Koz frowned. 'His breast... near his right shoulder?'

Chittusi scowled at Koz. Turned back to Barvitus, smiling. 'Do we intend to bury d'Aragon here? I know a church cemetery in Lesser Town that would be gratified to inter him. Or would Rudolf prefer his earthly vessel be returned to his homeland? I understand d'Aragon's wife is quite ill. I believe you mentioned that he spoke of her, at the meeting late Friday night.'

Koz shook his head. Light as a wood shaving. 'Jean's right shoulder was bandaged up. Leo didn't stab him there.'

Chittusi narrowed flimsy eyes. 'No. He didn't. It was something I treated him for before the duel.'

'What happened to him?'

Chittusi rounded on Koz. 'And who are you, to speak to me?'

'Me?' Blinking the cloying fog from his head. 'You know who I am, Chittusi.'

‘What?’ Head bobbing with avian indignance.

‘And I know who you are, “brother knight”. A Knight of the Golden Fleece.’

The withered burgher leered. ‘What is it to you? We owe nothing to that bloated toad of a Primas. You have no business here.’

Barvitiu looked between them. ‘How do you two know each other?’

‘He tried to have me killed.’ Koz grabbed Barvitiu. ‘Shall I tell you about it?’

Koz dragged the court secretary away from Chittusi. Hiding them both behind Pesach.

Barvitiu rankled. ‘This is most improper —’

Koz hissed in his ear. ‘*This isn’t over.*’

‘What do you mean? The blood libel?’ Barvitiu’s frown deepened. ‘You’re *that* sure d’Aragon didn’t do it?’

‘I don’t know.’ Koz sighed. ‘If that wound on Jean’s breast is what I think it is, then... it *does* put him in the Maisel Synagogue during the blood libel. Don’t ask me how I know. But it means Chittusi did something to Jean, when he treated that chest wound. Jean only lost the duel against Leo because his right shoulder, his right arm, was weak. You’re an herbalist. Is it possible?’

Barvitiu faltered. Glanced at Chittusi. ‘I suppose... with the right ingredients...’ The Lesser Town burgher was striding away. Sweeping out of Vladislav Hall with a performative, petulant leer.

‘Then Chittusi is up to something. Maybe all the Knights are.’

‘Did Chittusi really try to have you killed?’

‘He sent a bambitky thug after me. The Knight that assassinated Lang probably would have killed me too.’ Koz laid a hand on the rippled bulwark of Pesach’s back. His implacable friend.

‘I don’t know, Kozilek...’ The court secretary wrung his milk-white hands. ‘There’s still so many questions! Rudolf was so happy to have an answer. *I* was happy...’ He cast his eyes up at *Vertumnus*. ‘Can you really promise we don’t?’

‘Would Rudolf like to know where Matthias is?’

Barvitiu looked upon Koz with awe. ‘You’ve seen him? In Prague?’

Koz bit down on his tongue. He hadn't meant to say it. 'I... don't know for sure.'
Roder, at the White Lion. In the Klementinum. Eyes blank. Expectant. 'But... I'm close.'

Barvitiu's grimaced. Fighting with himself.

Koz seized the small man's pillowy shoulders. '*The blood libel isn't over*. Not until those who orchestrated it are brought into the light. Tell Rudolf whatever he needs to hear to protect Jewish Town. Tell him I'll bring him his brother's head. Just keep me on the case. *Please*.'

Barvitiu's bared his teeth. 'Suppose... suppose I choose to believe you. To *trust* you. What do you even intend to do?'

'There's still a chance the Golemsmith Guild is in on it. Somebody made sure all the Old Town likho were empty that night. Maybe it was Leo, maybe...'

Leo, meeting with Vorel in church. Vorel, who remained unconvinced by Brahe's death. The last Royal Golemsmith. Vorel, who talked of covered Rudolfine nadler-carts, travelling between the Castle and Vyšehrad. Who sent Koz and Pesach to Golden Lane. To the fusilier golems.

In the White Lion, Koz had asked Pesach what was next. Pesach had pointed at the 'G' engraved on the table. But not because Johannes Leo, Guild lawyer, was guilty of murder.

Vorel. Brahe. Leo. Pesach. Everything pointed to Vyšehrad.

Barvitiu's was talking. Asking Koz if he was all right. Koz silenced him with a growl. '*Vyšehrad*. The answers are there. They have to be.'

'What? I don't see —'

'Get us inside, Barvitiu's. And we'll get your answers.'

Barvitiu's flapped his pasty lips, stammering. 'But *how*? They don't let just anybody inside!'

'Send us in a covered Rudolfine nadler-cart. You know the ones. The ones used to smuggle clay fusiliers into Golden Lane. We'll take care of the rest.'

Barvitiu's blanked his face, but it was too slow. 'Clay fusiliers? What are those?'

'Oh! Shall I explain it to you? To *everyone here*?' Koz swept a cruel hand across the bustling merchants ringing Vladislav Hall. The millstones of the largest rumour mill in Prague.

The court secretary worked his bushy eyebrows. Prim hands fluttering about his doublet. Eyes flickering towards the door to the Royal Palace. Where his troubled liege hid from the world.

‘No one can know I’m doing this, Kozilek.’ Quavering voice hushed. ‘Rudolf must never find out.’

‘Whatever it takes.’ Koz released Barvitijs. It had been like gripping a cloth doll. ‘Just get us into Vyšehrad.’



‘...according to the nature of existence, it is not fitting for one nation to be enslaved by another nation which would subjugate it, because the Lord created every nation separately and with a view to that every nation should decide for itself, and other nations should not decide for them.’

Excerpt from Netzach Yisrael by the Maharal

If the crime is one of death, why does the punishment vex life?

Guilt is reason to die, and the punishment desire to die.

It is a grave matter to prefer to die with cruel destruction:

hence death hangs in equal measure on both sides!

‘It is death to deserve death’ by Elizabeth Jane Weston [II.10]

‘I know that I am dead and damned.’

Rudolf II, Holy Roman Emperor, confiding in his valet Philip Lang

‘Ne frustra vixisse videar.’ (‘Let me not seem to have lived in vain.’)

Last words of Tycho Brahe, 1601

The Attack on Yossele the Golem

This is not a story about golems.

It was Chanukah, a Saturday night. After Havdalah. This was before 1590, when the Maharal decommissioned Yossele.

Yossele was fetching water from the well, to be heated for the Maharal's pleasure. On cold nights such as this, the ground near the well was covered in a film of ice. Any other shamesh would have slipped and fallen. Not Yossele. Not the steady, reliable feet of the golem.

He no longer needed to be asked to fetch the water. He had learned to do it on his own. This was his duty, and thus it would be completed.

Yossele approached the well, clever feet losing no ground to the ice. Perhaps it would interest you to know about the thin, almost imperceptible layer of water around ice that makes it slippery?

In one hand, Yossele held the Maharal's pitcher. In the other, he hoisted the pole, with its bucket on the end, to draw water from the depths of the well.

Yossele was focused on his task. He carried with him no torch, no lantern. His eyes, which could see what human eyes could not, had not spied anything untoward. All he noticed was that someone had piled high some heavy rocks beside the well.

He did not spy his attackers waiting in the bushes nearby.

Setting the Maharal's pitcher aside, pole and bucket in hand, Yossele began to lean into the well.

Yossele heard the men before he saw them. Heard the rustling as they emerged from hiding, then the crunch of their footfalls on the frosted earth. Three men. Two moving quickly, one unsteady on his feet.

Yossele began to rise, pulling up the pole, the bucket. Thinking to raise them high as a weapon. But it was too late.

Two men pushed, and with an almighty heave, hurled Yossele into the well. The pole and bucket flew from his grasp as he toppled into the waters far below.

Yossele surfaced quickly. His arms flailed at the walls, searching for handholds. He looked up at his attackers, two men silhouetted against the night sky. The third man, unsteady on his feet, just now coming into view.

A porter. Known to Yossele as the lead figure in a small band of men. Men who unapologetically used the term 'nadler'. Discriminating against those who were not seen to be of pure Jewish blood — those who converted to Judaism, or those who had been oppressed, forced to adopt Christianity, returning later to Judaism when they could.

The Maharal had decried the term 'nadler', in a ceremony accompanied by great rabbis from all over Bohemia. But the head porter and his friends had persisted in its use. Avrohom had attempted to summon the head porter to the court of the Maharal, so that the Maharal may speak with him. But the old shamesh had been brazenly laughed away. And so the Maharal called for the young men of his court to gather up a batch of switches and some sturdy rope.

And then he called for Yossele the golem.

Looking up from the bottom of the well, Yossele saw the head porter sneering down. It was the same sneer Yossele had seen when he first found him in his house. He had sneered, right up until the golem had grabbed him by the scruff of his neck.

The head porter was not a small man. He had not attained leadership through wit, or courage. He was a bully.

Perhaps it would interest you to know how many people the head porter had physically abused? How many people's bones he had broken in his short life?

The porter could not bully Yossele. The golem carried the man through the streets of Prague around his shoulders like a sheep, and every time he tried to struggle out of Yossele's grasp, Yossele would smack him in the face. It was like being slapped with a cobblestone.

And thus the head porter was brought to the court of the Maharal to be punished. He was whipped, for hours on end, by young men bearing switches.

But none of them swung as hard as Yossele the golem. It was his duty, and he carried it out.

Yossele would hear later, from the Maharal, that the head porter had relented and apologised for his use of the epithet. That he had crawled home like a dog, trailing blood and flesh from his back, and had been unable to stand for weeks. That the porter's wife and sons had waited on him, tending to his wounds as he slowly healed.

Yossele had listened to the fate of the porter. He was never even told the man's name.

The head porter was standing now, unsteady on his feet. Looking down at Yossele over the lip of the well. And in his hands, he held a large, heavy rock.

Sneering, he released the rock. Let fall the weight of his revenge.

It struck Yossele in the face, casting him deep into the waters below.

Perhaps it would interest you to know how deep this well goes?

The head porter and his men dropped many rocks. One by one, rock after rock, until no sign of Yossele could be seen. Satisfied that they had killed the golem, they fled.

When their footsteps had faded, Yossele at last brought himself to the surface. His lungs needed no air, and thus he could not be drowned. But the falling rocks had done damage. Golems are resilient, but not impervious.

It was the old shamesh Avrohom who found Yossele in the well. He fetched some help, and they brought Yossele home to the Old New Synagogue. Avrohom dried the golem, and cleaned his wounded face. Wiping silt from clefts of clay. They lay the golem beside the fire, warming him. Leaving him to heal.

The falling rocks had crushed Yossele's nose, crumpled his forehead, and buried his eye deep. But by the light of the fire, Yossele's face returned its former shape. It was no miracle — not even the heat of the fire, in truth. Just time.

Once healed, Yossele approached the Maharal. The Maharal asked Yossele to explain what happened at the well. With sketched symbols, Yossele provided him a written account. An account, and a question of duty.

In Gans's version of this story, retold many times in the taverns of Prague, Yossele the golem asks the Maharal if he may seek his revenge. The Maharal stays his hand, saying that retribution will come from Heaven.

But what is revenge? What form would revenge take, when a man can have the flesh cleaved from his back for the speaking of a word? Weighing the world with such heavy scales, what would Yossele be compelled to do to a man who had attempted murder?

Yossele's written account of events is lost, as the Maharal is lost. But as Gans tells it, the Maharal let the porter be. And when the porter caught the black scurf, a hideous affliction that ate away at his flesh, we know that the Maharal denied this dying man an audience. For the Maharal, the disease that devoured the man alive had come from above.

All that is known of Yossele's intentions, the urges that Yossele felt, was that he needed to fulfil his duty. And in staying his hand, the Maharal had let the world do its holy work for him.

And so I ask you again. What is revenge?

Chapter 22

It was stuffy under the sacking. When Barvitus had taken Koz and Pesach to a private Castle courtyard, ushering them into a Rudolfine nadler-cart, thunderheads were overhanging Prague. Morning rain clouds threatening an early torrential night. Barvitus had concealed them below a sheet of sackcloth, hiding them from the outside world. Hesitating, then. Prim hand against the horselike neck. A small man contemplating his fate.

For over an hour, the Rudolfine nadler-cart trundled its secret cargo toward Vyšehrad. Arcimboldo's legacy, an exquisite specimen. Coat blacker than coal. Koz lay on the clay floor, cane beside him. Pesach sat on the wooden bench, head down. Sacking draped over the cart walls. Held aloft across Pesach's support beam shoulders. Swaddled in diffuse light. Like a pillar in the Maisel Synagogue.

Koz studied idle patterns in the sackcloth, hands behind his head. Variegated repetition. Tapping fingers against his roaring skull. His growling stomach. Trying to remember when he last ate. Outside, voices babbled like river water. Rising and falling. Cresting against one another. Only four days since Samuel the Elder dragged Koz out of bed. Four days since John was killed.

Koz blinked away sleep. Forced open weighted eyes. 'I was wrong about Leo. About him killing his own son.' A soft whisper. 'I don't know Leo. But I've heard stories about wronged men. Men spurned, in bed. In love. Neither motive is familiar to me, I'll admit. So I can't put myself in his head. But people kill in the name of thwarted romance.'

Pesach stared down at Koz. Unmoving.

'I'm right about the yellow circle though, aren't I?' Koz ran his fingers through his greasy hair. 'Golems were first built by the Jews. To defend them. Sometimes violently.'

Pesach remained still.

'I don't know why I didn't see it sooner. The nadler-cart that almost ran over that old Jewish woman in Old Town, until it saw her yellow circle. The Riot of Krocín Fountain, a nadler-cart stampede incited by Lang. Testing golems, Matthias had said. Killed a lot of Protestants. A few Jews harmed, but none killed. But not by some miracle. The consequence of design. Golems can't willingly harm anyone wearing the yellow circle.'

The nadler-cart rocked. Cobblestones giving way to rough road. Travelling east of New Town, through sloping farmland. Following the Hunger Wall, crenelated marlstone blocks ringing the eastern edge of Prague. Ambling a wide arc towards Vyšehrad's northern entrance. The Jerusalem Gate.

'Which brings us to the blood libel.' Koz dragged teeth across cracked lips. Chewing on dead skin. 'Two Jews walked into the Maisel Synagogue, after d'Aragon. To the eyes of the likho, two yellow circles. The Samuels.'

Pesach lifted a hand, a crumpled ball in his open palm. Offering Koz that fateful yellow circle. Bloodied pin poked through it. Koz took it. Outside, pedestrian voices were growing less frequent. The nadler-cart's clacking hoofbeats accompanied only by its own clattering wheels.

'There's no way Maisel's nephews wouldn't try stopping d'Aragon from setting up the blood libel. It's two against one, and they're big boys. But they didn't stop him. They left the synagogue. But only *one* yellow circle walked out, right? That's what the likho told you.' Koz lifted up the yellow circle. Glove black against a sacking sky. 'That's because Samuel the Younger wasn't wearing his circle. Because d'Aragon stole it. Pinned it to himself, as protection. Protection from the Samuels. Because the Samuels are *golems*.'

Somewhere, an oystercatcher cried. Koz let his hand drop heavily on his chest.

'So now d'Aragon is safe. The Samuels can't stop him. Can't even lay a hand on him, it seems. So they leave. They run to Maisel. Once he's set up the blood libel, d'Aragon ditches the stolen circle in the alms box on his way out. Maybe because it's got blood on it, but I doubt it. I think he didn't want to walk the streets of Prague as a Jew.'

Scant rain began to fall. A concert of drops against the sacking, a rhythmic rustling. Muggy air thickening with earthy petrichor.

Koz handed the circle back to Pesach. 'I figured it out this morning, thanks to your carvings on the table. But I couldn't tell Roder. If Matthias doesn't already know about the yellow circle, he can't be allowed to. Nor can Barvitius. People with power can't be trusted with that. But... I don't know how d'Aragon knew about it. Or the truth about the Samuels.' Scratching his chest. Unbathed skin tight beneath his doublet. 'He was *prepared*. We know he had a yellow circle in his pocket. But when it came time to wear it, it was gone.'

Pesach opened his mouth. Lang's voice rolled out. 'Would *you* like to know what I found when I picked the pocket of the third Duke of Terranova?'

Koz shivered. 'Exactly.'

Pesach lifted his eyes to the sacking. Surveying it with unfathomable senses. Koz saw only ripples in the cloth. The cadence of time's march.

'*Vyšehrad*.' Koz tugged his beard. Pain keeping his eyes open. 'It's all there. Leo links the Golden Fleece with the Guild, but it might go deeper. However d'Aragon knew about the yellow circle, about the Samuels, I'd bet the steel in my cane that information came from the Guild. From an expert in *Vyšehrad*. And that's only one of the questions I want to find an answer to.'

Koz reached into his matted grey doublet. Pulled out the three scrolls he took from the heads of the clay fusiliers in Golden Lane. Handed one to Pesach, who unfurled it. Sparkling with cinereal lines of inlaid silver.

'This is from one of *Vyšehrad*'s clay fusiliers. The ones Vorel pointed us towards, shipped in secret from *Vyšehrad* to the Castle. I understand their secrecy. They'd have to be nervous after Krocín Fountain. People fear golem violence. But, Rudolf fears Matthias. Makes sense he'd go to any length to defend the Castle. Even this.'

The golem's eyes rolled back and forth. Taking in symbols. Scanning the scroll's intricate autumnal border.

'So *Vyšehrad* makes clay fusiliers. Sends them to the Castle in covered nadler-carts. The Castle hides them in Golden Lane. Meanwhile, Red Artillerymen are sent away to guard *Vyšehrad*, soldier by soldier. Clearing human soldiers out of Golden Lane to make room.' Koz rubbed gritty eyes. 'Maybe Rudolf is waiting for the opportune time to announce that he's replaced his favourite soldiers with his favourite toys. Maybe they'll pop out when danger strikes. Maybe they know something is coming. We still don't know why Rudolf's

cousin, Leopold, was meeting with Barvitus. He's meant to be elsewhere with an army of mercenaries.'

Pesach handed the scroll back. Koz nibbled his moustache. Gnawing the long minutes away.

'I wish I had a better plan than this. I'm trying to think of one, but all I can see is what I *need*, not how to get there. We're sneaking inside the lion's mouth, but then what? Barvitus was so *sure*, and I just...' Koz squeezed his eyes shut. *'It would have been over.* Whatever d' Aragon did, whatever he was *made* to do, it would have been over. But would it have been *right*?'

Pesach had nothing to say to this. Koz kept his eyes closed. Hiding from the golem's enigmatic façade. Counting the minutes away.

Run from what you can never undo

A bump on the road jerked Koz awake. He sat upright.

Pesach was still. Watching Kozilek's every move.

No more voices nearby. The nadler-cart's sacking rippled, lashed by wind unobstructed by urban shapes. Koz pulled a corner of sacking aside. Peaked out.

Vyšehrad ahead. Buttressed mantle of stone atop a broad hill. Eastern edge joining the Hunger Wall. Western edge abutting the Vltava, unseen from this angle, bringing up clay from the dredging house docks. Covered with pulleys and baskets like crawling vines. Atop Vyšehrad's walls, Koz spotted red-breasted uniforms, sliding like drops of blood along the fortress' stone rim. Patrolling guards. Steeling themselves against the rising wind.

Koz turned to Pesach. 'Okay. When we get inside, I need you listening. Find us somewhere quiet to take the nadler-cart. And keep an ear out for anything to do with Leo. Or Brahe.' Vorel, seated before the effigy of the last Royal Golemsmith. Barvitus. Electrum nose wrapped in a fraught handkerchief. 'Just in case.'

The black nadler-cart, approaching from the north, rolled towards the gigantic Jerusalem Gate. Broad, tall. Wooden gallery along the top. Nine pointed turrets rising from it. Square crown above a ravenous mouth. Modelled after the Peak Gate on Vyšehrad's south-east edge, which was bricked up when the Guild took over the old fort, renovating it. Forbidding anyone enter Prague from the south.

Koz glimpsed red shapes in the windows set into the Jerusalem Gate. Pulled the sacking down. The nadler-cart paused. Muted conversation from the guards. Koz looked to Pesach, eyebrows raised. Pesach stared ahead. Apprehensive? Eager? Ignorant?

With a lurch, they rolled through the gate. Koz peeked out again.

Vyšehrad didn't look urban. It was a hemmed-in simulacrum of the natural world. Rough roads curved around small hills, dotted with trees. Boughs trembled in the wind. Moist leaves rattled against one another, sweeping jagged lines, chaotic contours. No fitted cobblestones here, no handcarved geometric lines. They passed a trio of children rolling in a pile of dead leaves. Haphazard, laughing. Frolicking in nature's waste.

'Right.' Koz dropped the sacking. 'This looks as good a place as any. Can you get the nadler-cart to stop?'

Pesach kneeled down. Hand flat against the clay floor. Koz waited.

'Well?'

Deep eyes vacillating.

'Well?'

Pesach shook his head.

'What? I thought golems listened to you!' Koz hovered his hand at the sacking.

'Where is it taking us?'

Pesach's eyes were forward. The Rudolfine nadler-cart turned, following a weaving road. Speeding up.

They passed snatches of conversation, flavoured with tobacco and gunpowder. A drumbeat of boots, marching ahead of them. Tromping in unison. Coming closer. Marching past.

Pesach was still kneeling. Sacking flapping around his tilted tower head. Soft locks like a tussled brown drapery.

Koz grabbed Pesach's thick curvilinear leg. 'Can you at least hear anything? About Leo? Brahe?'

The nadler-cart pulled to a halt. Koz froze. Heavy boots approaching. Murmured grumbling. The sacking was pulled back from outside.

Muscular young Red Artilleryman. Vyšehrad crest freshly sewn on his uniform, a red shield with overlapping gold keys. Flaxen hair whirling in the wind. Hazel eyes narrowed. Eyebrows bunching together. Left eyebrow scarred.

‘Edvard!’ Koz gave Vorel’s son a desperate smile. ‘Want your tolar back?’

Edvard seized Koz by the doublet. Dragging him out of the nadler-cart. Koz reached to grab his cane, but was too slow. Edvard dropped Koz on the road. Towered over him. Clutching Koz’s grey doublet in a white knuckled fist.

Koz opened his mouth. Edvard put his fist in it.

Pesach hadn’t moved. The sacking had fallen over him, shrouding him. A kneeling statue.

Three other Red Artillerymen approached as Edvard punched Koz in the stomach. Koz folded around the blow, clutching at Edvard’s hand. Kicking at his ankles, his groin. A desperate double cabriole. Edvard slammed Koz’s head against the cobbles, ringing it like a bell. Koz’s limbs went slack. He let out a strangled yell into Vyšehrad’s dappled grey sky.

‘Pesach!’

Pesach stood. Slow. A colossus in sackcloth. Stepping off the nadler-cart, rocking it with displaced weight. A blind hand emerged through the veil of sacking. Gripping Edvard by the neck. Lifting him into the air.

The audience of three Red Artillerymen yelled their surprise. Arquebuses raised. Pesach would be dented. Edvard would not.

Chel’m. Eliyahu Ba’al Shem’s attempted saviour.

Koz cried out. ‘Nobody shoot! Pesach, *put him down!*’

Pesach’s sackcloth shroud rippled in the breeze. The clay beneath it stilled. Edvard’s purpling complexion complementing his uniform.

The golem opened his hand. Edvard fell. Bounced on the road.

Another voice, above the wind. ‘*What* is going on here?’ A dark-skinned Guild official. Black doublet, red Vyšehrad crest. Striding at speed.

Edvard struggled to his hands and knees. Hacking. ‘Intruders!’

The Guild official appraised the scene. Rubbing his clipped head of charcoal black curls. Koz, moaning beside Edvard on the road. Pesach, immobile. Cloaked in sacking. Edvard, trying to stand, neck livid. Leaning on the nadler-cart for support.

Edvard licked spittle from his chin. 'We were attacked!'

'By a debt collector?' The Guild official pointed at Koz. Koz waved back, feeble. 'Do you have unpaid debts, Vorel?'

'No!'

Koz got to his feet. 'He's lying. Like mother, like son.'

Edvard's cheek twitched. 'Leave my mother out of this!' He pulled the sacking away from Pesach with a violent flourish. Pesach smiled at him. 'These two have attacked me before, in Golden Lane! And now they've snuck into Vyšehrad in this covered nadler-cart to do it again!'

The Guild official looked Pesach up and down. 'A... porter. And Kozilek the Collector.' Giving the nadler-cart's pliable clay mane a pat. 'Snuck into Vyšehrad.'

'Yes.'

'In the back of *this* covered Rudolfine nadler-cart.'

Edvard was apoplectic. '*That's what I'm telling you!*' The Guild official raised an eyebrow. Edvard stiffened. Military muscle memory pulling him to attention. 'Sir. These... are the facts.'

'The fact is, *Vorel*, Rudolfine nadler-carts are not for hire. This came from the Castle. Whether it departed empty, or with two passengers clever enough to cover themselves in sacking, remains to be seen.' Sniffing. 'We should proceed with caution.'

Edvard pushed his bulging throat towards the Guild official. 'They attacked a Red Artilleryman. Their intentions have been made quite clear.'

'Well. Allow me to make *my* intentions clear.' The Guild official brushed dirt from Edvard's uniform. 'These individuals, whoever they may be, will be kept secure until the Castle can be contacted for information.'

'Sir. May I escort them?'

'You may not.'

'Sir.' Edvard suppressed a spasm of insurrection. A shameful glance towards Pesach. 'The porter is dangerous. You need me.'

'Do I?' The official fussed over Edvard's Vyšehrad crest. Wiping grit from the bow and the blade of each key. 'Vyšehrad has quite a few Red Artillerymen, now. Of which you

are but one. Prestigious, perhaps. But no better than any other. Despite what your mother may have told you.'

'Sir!'

'Report to the physician. Get that neck looked at.'

Koz hobbled over to the nadler-cart. Grabbed his cane.

Edvard spun. 'That's a weapon! Mother told me about it'

The Guild official frowned. Motioned to the Red Artilleryman closest to Koz. The cane was snatched from his hand. Inspected. The blade was drawn free.

Edvard, triumphant. 'See?'

'Vorel.' The official's dark face was weathered and blunt, but his voice had a keen edge. 'If I have to tell you one more time to report to the physician, your fingers will never feel the touch of an arquebus. You'll be scrubbing chamber pots in St. Martin's until Last Judgement. Understand?'

Edvard looked as though he may pop. But he brought himself up to his full height, and with exaggerated finesse, he marched away.

The Guild official summoned the other three Red Artillerymen over. He took Koz's rapier, and his cane. Turned them both with steady hands. Appraising Pesach's undeniable bulk with narrowed eyes. Pesach hadn't stopped smiling.

The official sheathed Koz's rapier with a swift *click*. 'I'm going to send a missive golem. Request an explanation from the Castle. Put these two in irons, until they're behind bars in St. Martin's. Give Kozilek the use of his cane until then. If there's merit to Vorel's words, the Rotunda is the most secure. If they were sent by the Castle, who knows? They might find the esteemed companionship of our existing "lodger" agreeable. If they *weren't* sent by the Castle... well.' The Guild official walked away. 'The dwarf cherry shrubs by the Jerusalem Gate will welcome the fertiliser.'

Koz called out. Lightheaded. 'Do I get a chance to explain myself?'

'No.' The Guild official was already down the road. 'That's what the Castle is for.'

All this work. All this way. Just to be a prisoner.

Pesach offered no resistance as the three guards clapped him in irons. Wrists shrinking slightly to accommodate his manacles. Koz presented his own wrists, his breathing quickening. Innards still clenched around Edvard's punch. Handfuls of air being

snatched from his rib cage with each breath. Giddy, rocking in the increasing wind. Stinging rain whipping his face. He wanted to throw up, but had starved himself hollow.

They were marched deeper into Vyšehrad. Koz gripped his cane between manacled hands, his steps a stutter. Hauled to and fro by the wind. To the west, the Gothic pinnacles of the Basilica of St. Peter and St. Paul jabbed above the tree line. No other buildings. Huge doors with stone stairwells were set deep into hillsides. Koz heard grinding noises from below. Felt them through his soles. Multiple scrollmills, expansive kilns. Vyšehrad buried its wealth deep.

St. Martin's Rotunda came into view. Rounded like a barrel, short and squat, with another rounded room built into the side. Capped with a lantern tower shaped like a bell. Religious structure, repurposed. Smaller than White Tower. Than Daliborka. But a prison nonetheless.

A guard met them outside, with another Guild functionary. Papers were signed. Koz leaned against Pesach. Pressed his forehead into the golem's bicep. Eyes scrunched shut.

Hands at his back. Ushering him inside. Up a stairwell, behind Pesach. Koz swayed and swam, breathing shallow water. Palms against Pesach's back. Circular stone staircase taking them higher up the Rotunda, to a half-circle cell. Bars bifurcated this upper floor. High windows, bare illumination. Wind raging outside.

The guard opened the cell door. Rough hands snatched Koz's cane. Pushed him inside. Koz tumbled onto a bed, face down. That creak again, of metal hinges. A slam. Key turning in the lock. Footsteps, retreating. Pesach sat, buckling the bed.

Koz pressed his face against the fetid straw mattress. Let the quiet tears come.

After a while, Koz heard the rustle of parchment. He sat up. Put frigid stone against his back.

Furniture was sparse inside the cell. The bed, that Kozilek was on. An easel. Small desk. And an occupied chair.

An elderly man, in the cell with them. Gaunt as a street cat. Fitted pastel doublet with ruff, once expensive, now just well-worn. A lined face, elongated by a short grey beard, rounded over a pointed chin. Handsome nose. Thick moustache fringed with black. Inquisitive slate eyes, flecked with gold. Short white hair topped with a fabric cap. On the table, a mess of half-finished scrolls. Sketched diagrams. Familiar symbols.

Watching his new cellmates with quiet interest. Reading them as a golem might.

Koz sat up on the bed. 'You're the lodger they spoke of.' Wiping moist eyes with a pained sigh. 'I didn't notice you. Sorry.'

The lodger cocked an eyebrow.

'If I were a lucky man, you'd be Tycho Brahe.' Koz tried to get comfortable. 'I had a hope he might still be alive.'

The tidy man laughed. High and brittle. 'Oh! Dear me.' Italian accent. 'No, you'll not meet Tycho Brahe again in this life. Instead, you must settle for me!' He rolled up the scroll he was working on. Bounteous creeper vines framing intricate lines of Golem. 'I am Giuseppe Arcimboldo. The first Royal Golemsmith.'

Chapter 23

Outside St. Martin's, the elements rumbled. Rain had hammered the windows, but only briefly. Now the lantern tower above rattled and whistled, wind catching and escaping through unseen gaps. Inside St. Martin's, it was dry, but chilly. A guard brought Arcimboldo lunch on a broad tray. Wildfowl pâté. Raspberries, blackberries. Roast venison with garden cress and sage. Buckwheat bread. Cheeses. Plum brandy. Fitting lodging for the man who had once been Royal Golemsmith of Prague, if you ignored the iron bars.

The Milanese prisoner blanched at his food. Wordlessly offered the tray to Koz. Koz refused at first. But his stomach growled a complaint. So he picked at the hearty meal, cautious. Front teeth loose after Edvard's assault. Pesach beside him on the bed. Arcimboldo's eyes feasted on scrolls. Expression drifting between delight and passivity, irritation and reverie. Moods flitting like butterfly wings.

After a long battle, Koz put away the last of the cheese. Wiped his mouth. 'I've seen your paintings, you know.' His voice strange after the prolonged silence. Muted by the storm.

'Oh?' Arcimboldo hadn't looked up.

'*Summer*, in the Diet Hall. *Vertunmus* in Vladislav Hall. You've got a talent for assembling natural things.'

'Thank you.' Unfurling another scroll.

'It's a pattern I've seen elsewhere.'

'Indeed.' Arcimboldo traced a finger along the Vertumnan border of a scroll. Grapes in fat bunches, tucked amongst serrated leaves and curlicued vines.

'I assumed it was just a remnant of your influence. Your legacy.'

No response.

‘What about the Maharal’s legacy? The yellow circle?’

Arcimboldo barked, tossing the scroll aside. Regarding his guests. Then frustration gave way to appreciation. ‘How does a rank vagabond like you know such a secret?’

‘It’s not important.’

‘I am granted precious little entertainment here.’ Lacing his fingers behind his head.

‘Okay... how much news do you hear?’

The portraitist’s face was drawn in a condescending smile.

Koz pushed away the food tray. ‘The blood libel is back. A young boy was killed. The Jews are under threat.’

A pained look. ‘Who would do such a thing?’

‘Jean Tagliavia d’Aragon. A Knight of the Golden Fleece.’

‘This d’Aragon. Is he a fool?’

‘He’s... dead.’ Koz tilted his head. ‘How foolish does that make him?’

‘Only a fool would think the blood libel would work on Rudolf.’

‘Why?’

‘Sentiment.’ Sweeping his arm. Presenting his gilded cage as evidence. ‘Rudolf is consumed by it. The things he cares about can never be taken from him, never escape.’

‘Is this what happened to you after you retired to Milan? Did Rudolf drag you back?’

Swift anger, like a stoked flame. ‘I *never* retired to Milan! Not in 1599, not ever!’

Arcimboldo rose, pacing his cell. Buoyed by a geyser of rage. ‘Even when he *replaced* me, even when that pompous Dane Tycho Brahe was invited to join the Rudolfine Court, snatching my title, Rudolf could not part with me.’

Koz eyed the scrolls piled high on the desk. ‘Do you still work for the Guild?’

‘Ha!’ Arcimboldo slapped his table, rattling his paper bounty. ‘What I do is not *work*. Work is for the likes of Brahe! Measuring the sky with calipers, reducing the heavens to lines and numbers. Calculating beauty, but never *seeing* it. He could never have built Rudolf a golem.’

‘Neither could you, without the sofrim.’

‘Indeed.’ The anger flared away, dampened. A dapper smile rose in the ashes. ‘But art begins with theft! You cannot take a new step out from the edge of understanding without first following the footprints of others.’

‘And what about the people you stepped on?’

‘You sound like Maisel. It... wounded me, I will admit. Losing his confidence.’ His consternation was fleeting. ‘But it was a cost that had to be paid! When I met Mordecai, when he was appointed Court Jew, Rudolf had been demanding the secret of the Maharal’s golem for years. He had already set the entire Rudolfine Court, replete with the intellectual probity of the world’s greatest minds, upon this singular task. But up to that point, we had achieved little more than mimicry. A man of clay with no more intellect than a fly. I *needed* the secrets of the sofrim to understand the Maharal’s work. To make work of my own.’

‘Yossele.’ Koz felt a sinking weight in his stomach. ‘You got your hands on Yossele.’

‘In 1590.’ Arcimboldo’s steeped fingers quivered like kinked reeds. ‘We bribed an ailing old shamesh. Yossele was appropriated from his hiding place above the Old New Synagogue the very year the Maharal laid him to rest.’

‘But Yossele would never have worked for you.’ Koz touched Pesach’s hand. Rough and still. Cold. The golem watched Arcimboldo’s pacing with slow regard. ‘What happened when you brought Yossele back to life?’

‘We risked no such thing! Yossele was a weapon, after all.’ Arcimboldo smoothed his moustache. ‘Instead we *dissected* the thing. Conducted tests. *Learned*. And when we found a wealth of willing clay beneath the Vltava, we took our learnings and we made our own golem. Our small attempt at the miracle of creation.’ Casting his hands apart with a guttural sound. ‘Then Rudolf *insisted* we show our finished efforts to the Maharal. Rudolf thought he would be pleased!’

Koz gaped. ‘Why?’

Arcimboldo stood with his back to Koz. Shaking his felt-capped head. ‘The Holy Roman Emperor, for all his intellect, understands so few people. He surrounds himself with them, his Court, but cannot bear speaking with them. The curse of the melancholic, perhaps. This need for golems only deepened his gloom.’ He let out high and brittle laugh. Bit it off, short and sudden. ‘I painted *Vertumnus* by night, dissecting Yossele by day. Rudolf, the God of change! He always sought the deepest meaning in everything. Every painting, artefact,

and mathematical chart. But I was foolish to think that he would decipher *Vertumnus*. Perhaps he already knew he was changing. Perhaps that's what he wanted all along.'

'This was in '92, wasn't it? Rudolf showed his golem to the Maharal. And the Maharal left for Poland.'

'A meeting in the Diet Hall. Some flimsy pretense. Hiding his golem in the crowd. Our barely functional creation. It was *meant* to be a surprise. Of course, the Maharal spotted it immediately. Quite astute, that man... *quite* astute.' Arcimboldo turned. 'The Maharal departed for Poland not long after. No doubt aware that we had taken Yossele's body.'

'So... is the Maharal dead?' Koz gripped the mattress. 'Or is he a prisoner, like you?'

'How am I to know?' Arcimboldo shrugged. 'I will die in this room. *That* I know. Perhaps the Maharal will die in a room just like it. Or perhaps death has found him already. There are no men so holy, so gifted, that their death cannot be purchased.'

'Just like Yossele's holy remains. Bought to be measured. Copied.' Koz shook his heavy head, dumbfounded. 'Maisel only befriended you in the first place because the Maharal needed his help. To spy on you.'

'And I used Maisel's keenness against him.' Arcimboldo coughed, a wet rattle. Dropped back into his chair. Dabbed at his lips with a napkin. 'But then I kept his company, yes? Even though within three years, I had all I needed from the sofrim. Three years, and Rudolf's first golem was made complete! Humaniform, like Yossele. A thinking, learning, civilised masterpiece. Matter *truly* animated. And on the strength of this magnum opus, my Guild was formed. What friendship could be worth more?'

Maisel, in his threadbare office. His wife, the Maharal, all gone from him. Koz leaned forward on the bed, face hot. 'You're nothing but a *scribe*, Arcimboldo. You didn't learn who Yossele *was*, you didn't comprehend him. You only learned what was needed to copy how a golem thinks. And now everyone in the Guild copies you. It's no wonder every golem made in Prague feels how Yossele felt about the yellow circle. You didn't understand what you were copying. You still don't.'

'You think you could have done better?' Arcimboldo tittered his condescension. 'To seek genius in invention is to seek genius in recombination.'

'Three years, to make a new golem from a dead one. What if I told you I know two people who did it in four months?'

‘Then I would call you a liar.’ Arcimboldo bared his teeth. A grotesque likho’s leer. ‘It would require intellect beyond measure.’

‘Really? It only took two years for Brahe to come up with the likho. For him to build a machine to read all their scrolls. It took you almost a decade, and all you did is plagiarise the Maharal and reinvent the horse!’

‘Brahe was a cuckoo. A *brood parasite*.’ Arcimboldo impaled Kozilek with gold-flecked eyes. ‘His base attempts to improve upon my design, his clay spies... even his cursed device, his *precious* electrum armillary? Impossible without my work! His only measurable virtue was the speed with which he sullied my original designs. His time as Royal Golemsmith would have been much shorter than two years, but... well.’ A flick of a spindly hand. An iniquitous smile. ‘One’s means are limited.’

‘Electrum armillary... is that Brahe’s machine, in the Castle? Where the full scrolls from the nachtkrapps go?’ Koz blinked. Mouth catching up to his ears. ‘Wait... you had Brahe *killed*?’

‘Your surprise is validating!’

‘You made him pop his *bladder*?’

‘Indeed I did!’ A light, arch tone. ‘Even with my knowledge of Paracelsism, it was not an easy death to manufacture. Murder, Rudolf would have investigated. But a physical failing? There, a killer may act unseen. Although...’ Arcimboldo let out a confessional sigh. It was hollow. Brittle. ‘The whole affair was less *clean* than I would have liked. The valet I paid to perform the deed was new to his role. Insufficiently clandestine. Brahe’s Jewish friend became suspicious of him. So the Jew was dispatched, without my consultation. Regrettable.’

David Gans. Friend of Brahe, at Maisel’s request. Spying for Jewish Town. Throat slit in an alley not long after Brahe’s death.

Koz felt for the signet ring beneath his doublet. ‘Lang.’ Ex-valet to Rudolf. ‘*Lang*.’ Proud of his dark work. Wearied by his years of death.

‘Philip Lang! *That* was his name.’ Arcimboldo clapped. ‘An eager killer, for a few coins. If he had come to me first about Gans’ suspicions, I could have engineered a remedy. A shame. But! The deed was done. And there has never been a Royal Golemsmith since.’

Above them, the wind screamed a spectral lament over Prague. Arcimboldo cocked an ear to it. Papery skin whitening in the stony chill.

Koz stood. 'You're nothing but a killer. Nothing more, nothing less.'

Arcimboldo shrugged. Bony shoulders barely lifting the fitted doublet.

Koz pulled out the scrolls from his doublet. Unfurled them in Arcimboldo's face. 'I suppose we have you to thank for this? Rudolf's golem army?'

'Of course not.' The old Milanese painter turned his long nose up at the scrolls. 'I made sure his clay fusiliers were beautiful, but I refused to write the scrolls. I wipe my hands of it. Golems are ill-disposed to human combat.'

Eliyahu Ba'al Shem and his golem. Buried side-by-side in Chelm, father and son. 'You don't think they can be killers?'

'They don't understand what they're killing!' Curling a skeletal fist. 'The Maharal built Yossele to investigate and detain. To protect, yes? A simple formula for differentiation between friend and foe, with a human to guide it through human affairs. But picture a soldier, with simple orders, that doesn't understand its enemy. If you cannot imagine the mental state of who you're trying to kill, how can you ever know if it's murder?'

'Then why did you build them?'

'I didn't! The Guild did. Rudolf did.'

'*You made them beautiful.*' Seizing the edges of Arcimboldo's desk. Teeth gritted against the old man's apathy. 'You can't wash your hands of this. You're nothing but a coward. A fancy mimic with no spine of his own.'

And what do *you* know of golems?' Arcimboldo's gold-flecked eyes flashed molten. 'For twenty years, I have slaved over clay bodies and paper minds. I have slaved over the ingredients for *life*. And you presume to tell me what I know? What I *don't* know?' Leaning back in his chair. 'You're no better than Brahe and his fantastical electrum machine. I made the first Rudolfine golem, *I* filled him with the values Rudolf wanted. Golems come from *human* hands. Made and unmade in terrible ways. I understand *exactly* what they are.'

'Do you? And how many golems have you talked to? *Listened* to?'

'Just my first.' Bitter. 'Just my first.'

Desperate cries, from outside St. Martin's. Rallying. Shouting over the wailing wind. The sudden march of eager boots. Something, somewhere, was going wrong.

Pesach spoke. Mimicking the voice of the Guild official, crying out. 'Sound the alarm! Prague is under attack!' Arcimboldo blinked at Pesach's outburst, startled.

Koz stuffed the clay fusilier scrolls back inside his doublet. 'Matthias. It has to be him. He's inside Prague, and trouble follows that man like a neglected pet.' Turning to Pesach. 'We're getting out of here.'

'Matthias?' Arcimboldo scoffed. 'Give him a message for me. For all Habsburgs. Tell them I'm dead. Rudolf has no use for corpses that aren't made of clay.'

'Come with us and tell him yourself.'

A funereal smile. 'What I want, my boy, is peace. Other people tend to sully it.'

Koz put on his hat. Pulled Maisel's signet ring from his doublet. Warm from his scarred chest. Pesach's bright eyes following every movement of the Shield of David.

Arcimboldo sat, still as a golem. Fingers intertwined behind his head. Eyes closed. All the better to watch the world burn.

Koz spat on Arcimboldo's table. 'I came here looking for some way to connect the Knights of the Golden Fleece with the Guild. How disappointing that I should find you instead.'

Old eyes twitched under wrinkled eyelids. 'Take it up with Rudolf. He's a Knight of the Golden Fleece, not I.'

Koz frowned. 'Rudolf's a terrible Catholic, according to the Vatican. He's not eligible.'

'He's the Holy Roman Emperor! Keen to be privy to all the secrets of the world. And the Knights are keen to use his power.' Arcimboldo raised his eyebrows. Eyes still closed. 'My boy, are you really as foolish as all that?'

'Foolish enough to go talk to Rudolf.' Koz yanked the signet ring off the leather cord. Slipped the Shield of David onto his left pinky. 'Is Yossele's body still in the Castle? What did you do with his remains?'

Arcimboldo's lips twitched. Sardonic. He began to hum a tune.

'Pesach.' Koz stared down at the smug face of Giuseppe Arcimboldo. His humming drowned out the sound of distant death. 'Get us out of here. *Now*.'

It happened too fast to see how Arcimboldo reacted. The golem was too quick.

Rending bars aside. Pulling Koz down the stairs. The door below, cleaved in half with a single strike. A nova of splinters.

Bottom of St. Martin's. Guard, rising from his seat. Suddenly flying backwards. Falling limp to the ground. Pesach retracted his fist.

Koz scrambled out of Pesach's grip. Scooped up his cane from beside the groaning guard. Gave Pesach a thankful nod as he opened the Rotunda door.

Outside, obsidian clouds ushered in an early twilight. Figures sprinted against the high winds. Red Artillerymen, each hoisting an arquebus. Guild officials, bellowing. Wrangling the scattered tide.

Koz grabbed Pesach. Yelling above the gale. 'Where's it happening? The revolution?'

Pesach spoke. Mimicking the dark-skinned Guild official, midsentence. '... west. The Hunger Wall has been breached to the west. Hradčany is being taken!'

'By *Matthias*? Why breach the outer wall when he's inside the city?'

Pesach paused. Spoke again, a higher voice. Another soldier. 'Sir, what about Archduke Leopold? The mercenary army he was bringing to Rudolf from Passau, to protect Prague? They should be arriving any day now.'

'Leopold.' Koz shielded his eyes from the wind. 'Trust a Habsburg to be untrustworthy. Matthias did say he needed an army.'

More shouting, closer. A single Red Artilleryman. Pointing at them.

'The prisoners! They've escaped!'

He raised his rifle. Pesach raised his fist.

Koz grabbed Pesach. 'No! We run to the river. You protect me from being shot!'

And then Kozilek fled. Weaving through trees. Behind him, the explosive crack of an arquebus. The dull thump of a bullet hitting something hard. Koz looked back. Pesach, keeping pace. Uphill, downhill. Palm raised as another red shape aimed an arquebus at Koz. Fired. Pesach's hand jerked out. Catching the bullet.

Kozilek skirted around the Basilica of St. Peter and St. Paul. The Vltava lay beyond, over Vyšehrad's west wall. Vyšehrad was too high. The fall could kill him. But there should be baskets, pulleys. A way to descend to the Vyšehrad docks.

Two Red Artillerymen reared up out of the howling darkness. Levelling their weapons at Koz. Pesach nowhere to be seen.

Koz surged ahead, screaming. Closing the distance. Sweeping the rapier free from his cane. Piercing one man's thigh. Spinning to face the other, attitude à la seconde. Striking him across the windpipe with the cane's sheath. They toppled in Kozilek's wake. Pesach, catching up now. Surging through the trees. Round after round of distant arquebus fire hitting the golem in the back.

Up ahead, an octagonal wooden well. Its pointed roof was broad and squat, and a thick log lay over the well's mouth. Beyond that, the western wall. Too high to climb. No sign of the pulleys or buckets.

Koz skidded on the grass. Knee buckling, leg twisting. Rapier out, trying to right himself. Stabbing the earth. Shoulder giving way as he fell.

Something thick, snaking under his torso. Lifting his whole body. Pesach, hauling Koz away from the ground. Jumping them both into the air. Koz's hat flew from his head as Pesach lifted them both through a thin canopy of branches and leaves. Koz's stomach plunged to his groin.

For a moment, at the apex of the jump, Prague lay below. Sun burning through clouds near the western horizon. The Vltava, sparkling. The belt across Prague's belly. The Castle looked so small from here. Other side of the world. Sprawled below it, Hradčany glittered, the Castle district. All the way to the fringes of Lesser Town. Awash in excoriating flame.

And then they were falling. Back towards Vyšehrad. Pesach's feet whipping through branches. They hit the well. Tore through its wooden roof and thick log like wet paper. Splintered wood tumbled, battering. Following them down the stone gullet. Wet air rushing. Koz curled into Pesach. Pesach's palm pressed against his chest, bringing Koz's hands close. Embracing him.

Koz held his breath.

Chapter 24

Darkness.

Koz rolled, slow. Disembodied. Delirious.

Motion. Floating like a gentle boat on the Vltava. An untethered soul. Adrift.

Was this death?

Sensation, intensifying. The weight of his body. The tension of his inflexible, scarred hide. Limbs moving out. Stiff fingers wiggling. Spectral at first. Increasingly real. A spasm rocked him. His limbs *had* to be real. Alive They ached terribly.

He was floating, but not a spirit. Not free. He was heavy. *Flesh*. He was flesh. And he hurt.

Surrounded. Not by water. Too thick. Pushing against it. Resistant. Contiguous and cold. Thickening around him. Eyes sealed shut.

Koz realised he was breathing. Panicked. Closed his throat, held his breath. Poked out his tongue. Air. Over his nose, his mouth. But nowhere else. It tasted like licking a tolar. Tickling his lips, as if containing a tiny breeze.

Head rocking. Panicked heart pounding. Thoughts rattling. He felt movement. He was heading *forward*. But forward where?

Thrashing. Trying to open his eyes. Dense morass around him creeping over his nose and mouth. Smothering. The sense of forward movement increased. Enveloped in soupy darkness. An undulating medium, pushing Koz's body through itself. Pushing him out. Out and up.

He breached it, headfirst. Emerging into something colder. Biting, shivering cold. Familiar. Less dense. Koz opened his eyes.

Now he was underwater.

The current swirled. Dragging him. That thick substance still clung to his face, plugging his nose and mouth. He clawed at it, fingers feeble. Clay. It was pliant, but it wouldn't budge. Koz kicked. Trying to find his way up. Grasping at dim light.

His head broke the surface.

Vltava. Fat moon staring down. A chorus of winking stars. The current carried him at a gallop. Sweeping past dredging houses, black boards broken and jagged. Koz screamed into his gag. The clay on his face came free. Falling away into the water.

Lights dotted both riverbanks. Left horizon brighter. Smoke spiralled high, replacing fleeting stormclouds. Hradčany, Lesser Town. Under attack. Archduke Leopold, his mercenaries from Passau. Koz thrashed against the current. Futile.

Stone Bridge, downstream. Covered in moving figures, fleeing the chaos. Old Town and Lesser Town Bridge Towers, lanterned and watchful at both ends. For all the good it had done. Beyond Stone Bridge, upriver, the Lesser Town docks jutted into the Vltava. Koz kept kicking, aiming for the docks. Arms shoving against the waves. Trying to stay afloat.

Legs aching, slowly refusing to move. Growing heavier than his fear. Head dipping below the waterline. Tilting his face back, Koz cried into the roaring night. Face filling up with silty water. A jug at Krocín Fountain.

Stone Bridge came at him. Stout pillar, striking his shoulder. Jarring pain. Scrambling. Bouncing him underwater, twisting him. Disoriented. Too dark to see the surface, the docks. Koz thrashed. Trying to push his body anywhere. Long, desperate seconds. Holding his mouth closed. Holding back the screaming fire roaring in his chest. Fighting for one more moment. One more moment to find the surface.

Something hard hit his back. Koz flailed at it. It slapped at him, and his last exhalation flew free. River water rushing inside after it.

Something snagged his cloak. Tugged at his back, violently. Pulled him through the water. Against the current. Koz's head found the surface. Spluttering. Vomiting river water. Strong hands gripped his shoulder. Dragged him against the side of a dock. Koz clutched it, feeble. Helping his saviour haul him out of the Vltava.

Koz flopped against the boards. A dying fish on the Lesser Town docks. Bedraggled and raw. Wiping hair from his face. Blinking away the river.

Westonia. Standing over him, face blank. Auburn hair tied back. Boat hook in one strong hand. Lit from behind by the distant glow of invasion.

Koz tried to sit up. Slipped, falling back against the dock. Westonia dropped the hook. Helped lower him back down.

‘Stop. Stay still.’

Koz stayed still. Devouring every desperate breath. He smelled ashes on the wind. He couldn’t hear the screams. The blaze of gunfire. Just the tranquil Vltava, lapping below.

Westonia’s voice was flat. ‘You could have drowned.’

‘I was trying...’ Koz coughed, rolled over. Another revolting mouthful spewing forth. He spat. ‘Trying *not* to.’

‘What happened?’

‘Vyšehrad. Pesach! We... down the well. He picked me up. Jumped down into it.’

Koz looked at the boat hook Westonia had dropped. Its tip was slick with blood.

Westonia’s voice stayed toneless. Empty, but for the barest quiver. ‘How did you get from the bottom of a well into the river?’

Koz rolled, touching his back. Trying to find a wound.

Another person. A few cubits away. Prostrate on the dock in the smoke-smeared moonlight.

Scotta. Face bulging, a ginger rictus. Gaping slash across in his chest. Sword cane useless beside him.

Westonia’s oval face was pale. Trembling with shock.

Koz licked split lips. ‘You did this?’

A superficial nod.

Koz propped himself up on one arm. ‘What did he try to do to you?’

Westonia wiped her hands on her blue-green dress. ‘I followed him here. From Old Town Square. I thought he might be looking to secure a way out for Hominem Mundi. To Ústí. Like Philip used to say.’

Koz looked around at the empty docks. All boats, long gone.

‘When he saw me... I do not know if he recognised me. There was one boat left. He was unmooring it. He asked if I wanted to climb aboard.’ Westonia swallowed. Grimaced. ‘He said... he had a trick to show me.’

Koz dragged himself towards Scotta. Sticky blood pooling across the planks.

'I told him I had seen enough tricks.'

Scotta's face was cool. His cane mired in blood.

'I have no memory of grabbing the boat hook. When he came for me... I tried to push him away with it. I never meant to kill him.'

Koz picked up the cane. Wiped it off on Scotta's doublet.

'The boat floated away.'

Koz hauled himself upright. Old mentor splayed before his unstable feet. Arquebus scar on his cheek a sickly white. The path of the bullet that had — perhaps — changed everything.

Westonia's gaze found its way to Scotta. 'You knew him.' Sob escaping. Choked back. 'Does he have any family?'

'Maybe.' Koz stared into the roiling Vltava below them. Stared at Scotta, sprawled on the dock's edge. 'Once.'

'Was he... a good man? To you?'

'He taught me more than enough.'

'They worshipped him, at Hominem Mundi. Like they used to worship Philip.'

'Yes. They both had a lot of things to say.'

Wedging the tip of his boot under Scotta's torso, Koz flipped the body over. Momentum carried it over the edge. There was a loud splash.

Westonia gasped.

Koz watched his mentor drift away. Facedown. Amorphous, in the waves. On his way to Ústí.

Westonia's breathing slowed to a rasp. Koz wiped his wet eyes on his wetter mandilion.

On the eastern bank, Jewish Town glowed in its crook of the Vltava. They would be barricading the gates against the opportunists of Old Town. Huddling in the synagogues. From behind Koz, snatches of wind carried fearful echoes from western Prague. Barking rifles. Pleading cries. Maybe at Moor's House, House of the Black Eagle. Maybe the Three Hearts. If not now, then soon. The flames were far away and Koz was sodden, but he could feel them. Tingling. Licking at his back.

Koz tested his grip on his new cane. 'You say you came from Old Town Square. Is that where your family is now?' Turning to face Lesser Town. 'Tell me they're not with Chittusi.'

'We could not find Chittusi. He fled.' Westonia's throat bobbed. 'So Leo took us to Týn. When the mercenaries reached Lesser Town's fringes. Leo said Vorel would shelter us. But when I saw Scotta, fleeing the Old Town Square, I thought...'

'You should go back to Vorel. She'll protect you. Matthias won't.' Koz felt around the cane's silver head. No safety catch.

'I only went to Hominem Mundi in the first place because I wanted answers.'

Because you thought they hated the Jews. 'They don't have answers. Good questions, maybe. But no answers. Not under Matthias.' Koz yanked at the cane's head. Trying to pull the rapier free. It didn't budge. Koz struck the dock with it. Nothing. It didn't even rattle.

No sword. Scotta's cane was just a cane.

Koz froze. Staring at his hands.

They were naked. Signet ring missing from his left pinky. No glove on the right. He had been wearing both in Vyšehrad. But on his right hand, his two clay fingers were stuck fast. And they were moving.

Westonia rose to her feet, oblivious. 'You said you were a friend to Philip.'

Prodding the clay simulacra. 'I knew Lang. A long time.' Unfeeling strangers. No sensation, no flesh. But mobile. Prehensile. Mimicking his other fingers. Living prosthetics. Alive as golems.

'Leo said you were arrested. After Philip was killed.'

'Assassinated.' Koz tested his cane grip. Strong. 'Vorel locked me up because I killed Lang's assassin.'

'John loved Philip.' Westonia undid her bun. Practiced movements. Sweeping her panic downriver. 'He always had a story to tell. A trick to perform. He made John laugh.'

Mouth-sized bruises, on Lang's neck. On Westonia's. Koz coughed. 'Who was Lang, to you?'

'Philip... was a close part of the family. To me... *and* to Leo.' Westonia's freckled cheeks flared red. 'It was our business. Private. We could not risk being discredited at court. I do not expect others to understand.'

Koz shrugged. 'I don't have to.'

The Vltava lapped at the dock. South of them, clustered silhouettes continued to flow across Stone Bridge, passing through the Old Town Bridge Tower arch. Rising smoke occluding the moon above.

'I want my son back.' Westonia watched the plume of ash rising from Lesser Town. Hateful eyes shimmering at the sky. *'I want my son back.'*

Two figures were walking towards the dock. Hobbling. One leaning on the other. Woollen cloaks clutched tight.

Koz cleared his throat. 'I meant what I said in the Klementinum. The Jews didn't kill John. I'm on your side.'

'I believe you. But what *use* are you?' Rounding on Koz. That same explosive rage from Vladislav Hall. 'Leo killed my son's murderer! All of Prague knows it. What peace you can possibly bring me?'

'I can find out why John was killed.'

Westonia's face crumpled. Quaking on her feet.

Miriam and Adara approached.

Ignoring Westonia, Miriam looked Koz up and down. 'And what happened to you?'

'Everything.' Koz tried on a smile. It fell off.

'Where's Pesach?'

'I was hoping you could tell me.'

Adara recoiled, stung. 'You don't *know*?'

'We fled Vyšehrad. Pesach saved me. I found myself... somewhere. Within the river. Pesach was gone.' Koz swayed, aching. Balanced himself. 'Is it still Monday?'

Adara nodded.

'Is Jewish Town safe?'

Miriam fidgeted her well-chewed fingers. 'For now. There were a few bambitky, but they fled when they heard about Lesser Town. And I think Old Town is more worried about itself.'

'It should be. The invasion is Rudolf's fault. He got his cousin Leopold to bring mercenaries to Prague, to protect Prague against Matthias. It didn't occur to Rudolf that if Leopold sided with Matthias, Rudolf would be bringing his brother's army to his own front

door.’ Koz shook his head. Cold and bedraggled. ‘Jewish Town may be safe now, but Vorel won’t pass up the chance for long. If we’re lucky, Pesach will make his way there. If not, maybe the Samuels...’

‘Maisel and his nephews went to the Castle. For Maisel’s audience with Rudolf. When we couldn’t find you at The White Lion, we assumed you’d be with him. We came this way to —’

Westonia found her voice. ‘You two. I saw you hovering around Matthias.’

Adara bared an incisor. ‘A fleeting mistake.’

Koz touched Adara’s shoulder. ‘Take Westonia back across the river. Her family is hiding in Old Town. Make sure they’re safe.’ A deep breath. ‘Do you know where Matthias is?’

Miriam shook her head. ‘We’ve parted ways.’ She flashed her solemn eyes at Westonia. ‘But has she?’

Westonia returned the stare. Cerulean eyes catching the light of distant embers.

Koz stood with Westonia. ‘Matthias is on his own side. If you can, I need you to tell everyone the truth about him. Everyone in Hominem Mundi. Before he uses them as pawns in Leopold’s invasion.’

‘How?’

‘Leopold and his army can’t take Prague Castle. But they don’t have to. It’s a siege. Leopold only needs to take the towns of Prague to choke the Castle off. Rudolf can’t hide forever. But Leopold can’t hold the towns forever. Unless the towns can be brought to order. That’s where Matthias comes in. Whether Matthias rallies the towns for or against Leopold, they’ll follow him. However he makes it look. He’ll be the saviour of Prague.’

‘Why do you think that’s his plan?’

‘Call it intuition.’ Koz flicked the head of his cane. No safety catch. ‘Desperate people will look in the magic mirror and see whatever you want them to.’

Westonia flailed a hand at the Castle. ‘But Rudolf has *golems*! The most powerful creatures in the land! Surely *they* could do something?’

Adara grinned. ‘They are.’ Pointing at Stone Bridge, stout in the darkness. At lanterns in the crowd, held aloft.

Koz could see them now. The steady way they moved amongst other refugees. Golems. Patiently shepherding humans into Old Town. Leaving Lesser Town and Hradčany in their wake.

Miriam's voice cracked. 'May Pesach be among them.'

'He'll take care of himself.' Koz seized her hand. '*Listen*. I'm going to go find Maisel. I'm going to get protection for Jewish Town. And I'm going to get some answers. Maybe something more. Adara, is that golem key you're working on finished?'

Adara cocked an eyebrow. 'Why?'

'I might need to get into the Diet Hall. Maybe even the Kunstkammer. It's where Rudolf keeps all his valuables, right? Like Brahe's machine.' Koz let out a hopeful breath. 'Like Yossele.'

Chapter 25

Lesser Town already felt like a necropolis. Dark houses sealed tight. If people hid inside, they hid well. No Lesser Town guards, here on the eastern edge. They would be marshalled on the Hradčany side. Trying to push Leopold's forces back across the Castle district.

Koz skirted civilisation at a foolish sprint. Straining up the cobbled road to the Castle, lit by clean moonlight. He ducked at every arquebus blast, every barking cannon. War's slaver jaws biting further over Koz's horizon. The hot wind picked up. More than ashes on the air, now. The tang of powder. The shameful savoury hint of charred flesh.

Tired legs failing, Koz stumbled against a building. Ducked into the alley. Throat freezing from the endless pumping bellows of his lungs. Head back against the wall. The sky was swathed in smoke. Hiding the stars from the pandemonium below.

Raucous explosion, nearby. Koz scrambled down, sheltering his head. The alley was showered with detritus. Koz heard cracking wood, crumbling stone. Architectural collapse. Mocking salutations. Somewhere, a child sobbed. The cacophony of invasion a blended symphony.

Koz couldn't slow his breath. Scars racking his skin tight. Struggling to keep a grip on his cane. What good was a walking stick against a cannon? An arquebus? An Archduke?

With an anguished grunt, Koz charged out of the alley. Back to the street. Back towards the Castle.

The Castle's southern edge glowed, lit by the flames of Rudolf's hubris. Eastern edge dark. No torches, no lanterns. The Castle guards had better things to do than guard the east. They had the advantage. They could see exactly where Leopold was.

The street crested. Eastern gate, up ahead. Koz peered into shadow. Figures crouched in front of the gate, facing out. Rifles raised. Even in this low light, Koz could see how beautiful the two soldiers were. Pristine faces. Steady hands.

Koz dropped prone. Rolled on his back. Laid a hand on his sodden grey doublet, feeling for the clay fusilier scrolls. Not that they would do anything.

They were gone anyway. All three. Lost in his tumble in the river. Lost like Maisel's signet ring. That Shield of David belonged to the Vltava now.

Koz tapped at his chest with two clay fingers. Two clay fusiliers ahead. He had stolen scrolls from the skulls of three, in Golden Lane.

How many was Rudolf likely to have?

A distant explosion, deep in Lesser Town. A belch of flame. Minute by minute, the invasion was ascending the hill. The eastern gate would only be quiet for so long.

Swallowing his heart, Koz got to his feet. Steadied himself on his cane. Right hand ahead, palm out. Fingers of flesh and clay. Mouthing a wordless prayer.

Stepping forward.

Not a single arquebus fired. Koz walked towards the fusiliers. Between them. No reaction. Not a twitch.

Koz breathed out, but his lungs felt full. Buoyant. He skipped towards the eastern gate.

The heavy doors were ajar. Koz slunk into the Castle.

Urgent shouts bounced across its courtyards. Quiet, here. Koz kept to the shadows. Ears straining for Castle guards. He made for the Riding Stairs. Heavy doors locked. Koz fished out Adara's golem key. Clammy. Pliable. He pressed it against the lock, golemflesh hardening under pressure. Tapped it thrice, as Adara had done. Waited. Metallic noises, inside the door. Koz's legs throbbed.

The door gave, sudden. Koz pushed it open. Peeling back the golem key. Tiny clay fingers retracting into its body. He gingerly palmed the pliant rectangle with barely controlled revulsion. Ascended the stairs.

Vladislav Hall, empty. Vaulted ceilings soaring ominous. A gaudy mausoleum. All doors unguarded. Not even golems. Diet Hall, vacant. No Rudolf. No Maisel. No Barvitius. No Knights of the Golden Fleece. No bambitky.

Vladislav Hall's westernmost door. Another three taps of the golem key.

Royal Palace. Luxuriant rooms, unlit. Silent. Buffered from the chaos below. Koz worked his way deeper. Ears hissing in the strained silence. Lock after lock yielding to tiny clay fingers.

Finally, an unlocked door that wouldn't budge. Koz braced it, pushing. Shifting furniture on the other side, grinding. Dresser, barring the way. Koz squeezed around it.

Musk assaulted him. Stagnant habitation. Almost animal. Scattered furniture, discarded clothes. Magnificent paintings on every wall. Negligent opulence. Melancholic indolence. Rudolf's Royal Chambers. No servants allowed inside.

Another room, second floor now. Southern window, curtains parted. Letting in pyre light. Poster bed, strewn with mystic items. Jawbone, possibly human. Clusters of teeth. Horns. Garish feathers. Bedside, a colourful bowl, rainbow striations. A huge spiralled horn, arrow straight. Tall as Pesach. A glass jar containing a marbled, fetal lump. Suspended in red fluid. Koz walked to the window. Overlooking western Prague. A living landscape, framed behind glass. Alight and screaming. *The Fall of Hradčany and Lesser Town*, 1610.

A vulnerable sound. Muted. Distant, another room. The same melancholic weeping Koz had heard coming from the Royal Palace, when he first met Barvitius.

Slender stairwell. Descending north out of the Royal Chambers. Door at the bottom keeping the cries at bay. Koz unlocked it with the golem key.

The marvels that lay beyond stopped Koz dead.

The scant light that illuminated the Royal Palace had to sneak inside. Peeking around heavy curtains, underneath doors. But this long corridor *shone*. Graceful candelabra ran the length of the ceiling, crystalline light amplified on a hundred surfaces. Coruscating across the air, slicing it. Dividing the room in a dazzle of colour. A gilded gullet, choked with wealth.

The Kunstkammer.

Tables held countless treasures. Cabinets displayed artefacts of wonder beyond measure. Medals and medallions, shells and amulets. Crystals, coins. Bejewelled daggers. Clockwork animals; a small peacock, precious in its stillness. Alive with potential movement. Exquisite statuettes carved from precious stones. Masterfully crafted musical instruments. Bezoars of all sizes. Hung skeletons, contorted bones holding aloft strange

artefacts. Suits of foreign armour stamped with vivid sigils. Paintings, a sparse few hung. Many of them stacked. Piled high beside a desk. An Emperor's view of the collected world. The natural, the unnatural. Arcane. Obscene.

A door, being pulled shut. End of the corridor. A desperate sob. Footsteps.

Koz surged forward. Shouldering past Rudolf's innumerable treasures.

'Rudolf! Where's Maisel?'

Unlocked. Kozilek sprinted through the door, through the long room beyond.

Swimming through gaudy displays of obtuse trinkets. Hit a locked door. Koz fumbled for the golem key.

'Spare me!' The other side. Retreating, now. '*Spare me!*'

Koz growled into the door, punching it. Tapped the golem key. Bouncing on his feet. Hunting a Habsburg inside his own hoard.

They ran the length of the Kunstkammer. Past prodigious timepieces, astrolabes and globes. Past eggs and amulets, jars of powders, bottled tinctures. Koz chased his quarry along the first floor of the Kunstkammer, then down, doubling back south along its ground floor. Rudolf wailed, always one room ahead. Door after locked door. Koz tapped his golem key through them all. Cramped workshops, colourful ateliers clustered like Vertumnan fruit. Rudolf's cries getting closer. Koz was beyond body, beyond self. He was here to collect.

'No further, assassin! You will come no further! *No further!* Jupiter! Jupiter, *to me!*'

Final door. Larger than the others. Rudolf sobbing on the other side. Koz panted, leaning against a stack of priceless books. Slamming the golem key against the lock. In the room beyond, metal scraped against stone.

The golem key unlocked the door. Koz tore it aside. Stormed through, snarling.

Antechamber. Lavishly decorated. Intricate illustrations on the walls, the four seasons, the twelve months. Another door on the other side of the room, closed.

A huge contraption dominated the middle of the antechamber. Tall as Pesach, thrice as wide. Cast iron frame. Dense cogs, wooden beams. Heavy levers extruding on all sides. An interconnected monstrosity, a gargantuan loom. Right in the middle, a golem's scroll, unfurled. A clockwork lectern. Presenting a scroll to the empty stool sat before it. Deep in the machinery, more lay in wait. Fresh ones in a collection tray at the bottom. Likho minds, washed clean of thought.

Brahe's machine. Just as Lang described. But not the device Arcimboldo had cursed back in St. Martin's. This was cast iron, not electrum. And definitely not an armillary.

Behind the machine, the scraping noise continued. Metal on stone. The tip of a sword arcing across the ground in a wide circle.

Koz stepped around the machine and faced the Holy Roman Emperor.

Matted, mousy brown hair. Black Spanish robes rumpled. Ermine cloak soiled. Untrimmed vermilion beard threatening to overflow his filthy ruff. Thick fist of opaque material hung around his neck. Amulet. Filled with diffuse powder. Ample red lips quaking. Muttering. Fixated eyes moist. Drawing a fervent circle around himself with a jewel-encrusted sword. Bell clutched in his other hand.

Koz took a step forward. 'Your Highness. I need you to listen to me. Where is Mordecai Maisel?'

'Stay back!' Rudolf's sallow face blanching. 'The circle is complete. Neither you nor my other enemies can touch me now. Not here. I am safe!'

'You're safe?' Koz halted, blinking. 'What about everyone else? You've got a Castle! Clay fusiliers! You should be making sure everyone is protected. *Vulnerable* people. You need to send soldiers across Stone Bridge, to the eastern bank, while you can. Before Leopold controls the western bank. Before Vorel takes the opportunity to sack Jewish Town.'

'Vorel? I...'

'Yes! Vorel!' Edging closer. 'And what have you done with the Primas? Where is Maisel?'

'Maisel.' Rudolf's sword hand faltered. 'Maisel... another lost ally. I should never have turned him away. They are enemies, everywhere... *in every shadow*. Enemies of Prague. Prague!' Cheeks fluttering below bulging eyes. 'Stealing away every friend. Even my dear Barvitijs, gone. Gone, now!'

'Prague's enemies aren't in the shadows. They're your *friends*. The Knights of the Golden Fleece are using you. *Chittusi* is using you. Your creation has turned you against Jewish Town.'

Koz's words glanced across Rudolf's brain like rocks skipped across the Vltava. Rudolf raised his mystic bell with embarrassing reverence. Covered in magical symbols. He gave it a little tinkle.

Koz advanced. 'Your Highness —'

'*Jupiter*.' Haunted eyes brimming with love. 'He's *coming*.'

'Listen to me! You need to tell me where Maisel is. You have to let him take what's left of Yossele back to Jewish Town.'

Rudolf raised his sword. Pressed it against Koz's breast. '*Jupiter is coming*.'

Koz swatted Rudolf's sword aside, the tip ripping his mandilion. 'Is that your name for him? "*Jupiter*"? The first golem Arcimboldo made you?'

Rudolf faltered. Vaulted eyebrows careening together.

Koz slid a foot forward. 'Arcimboldo told me everything. How he carved up Yossele. How he dissected the Maharal's creation, all so you could have your first golem. Something that looked human. Something *civilised*. And Chittusi is *so* civilised, isn't he? A master herbalist. Just like his creator.'

Rudolf's goggled at Koz with swollen eyes. 'My golem —'

'That's what this blood libel is about. Chittusi is trying to force you to do what you promised your own father you would never do. Expel the Jews from Bohemia. Because if there are no yellow circles in Bohemia, then your clay fusiliers can hurt whoever they like. Chittusi can hurt whoever he likes.'

'No...'

'Chittusi. Your first golem. The one you showed the Maharal in '92. You hid him in the crowd then, and you're hiding him now.' Koz smacked his cane against the frame of Brahe's machine. 'Arcimboldo filled him with *your* values. That's where it went wrong, didn't it? He taught your golem to want power, but your golem can't harm those wearing the yellow circle. Because Yossele couldn't.'

Rudolf licked his trembling lips. Tongue tasting the word. 'Yossele... *Yossele*...'

'It's over, Rudolf. *Not everything in Prague belongs to you*. You need to give Yossele back. The Maharal is gone, but there are others. Others who can rebuild the saviour of Jewish Town.'

'The Maharal...' Rudolf let out a feeble sob. 'The Maharal was my *friend*. I should never...' Faltering on his feet.

Koz snuck forward.

Rudolf dropped the bell. Swinging the sword up towards Kozilek's face. '*Assassin!*'
Screeching. Grief giving way to murderous fear. '*Jupiter, to me!*'

A creaking noise, within the heavy silence. The other door, across the antechamber.
Something pushing it aside. Shouldering its way in.

Beautiful. Four-legged, muscular. Painted oak brown. Silver threads, shaped like
lightning bolts, glittering in its mane. Jaws open in silent challenge. Silver teeth sparkling.
Long and keen.

A golem lion.

Rudolf breathed an ecstatic whisper. '*Jupiter*. My last and most loyal friend. Take this
assassin from me.'

Jupiter lunged.

Koz fled.

Sprinting back into the *Kunstkammer*. Weaving between ancient books, casting a pile
of Paracelsian tomes down behind him. Stumbling, panting. Barrelling through doorways.
Leaping through workshops bristling with tools. Grabbing at cabinets inlaid with delicate
filigree, tables littered with rare eggs. Hauling himself forward with his hands. Anything to
gain speed.

No sound of footsteps behind him. Just the rattle of trinkets. Furniture displaced by
the massive creature's weight. Rudolf continued shouting from the antechamber, his
triumphant bellow trumpeting the length of the *Kunstkammer*.

The world blurred, this crystallised moment of life. Prey fleeing the inevitability of
the predator. Senses cascading together, the taste of rocking candelabra, the scent of
disturbed artefacts. Natural, artificial, scientific, all spiralling as one. An intestinal mosaic
nightmare. Koz glanced behind, unable to see his pursuer. Blown glass, shaped bone, astral
glyptic talismans. Winking at him in the dazzling light.

End of the ground floor. Door to the stairwell. Koz skidded to a halt.

Jupiter sat on brawny haunches. Patient. It had gotten ahead of him, around him.
Unseen, unheard. Brutal silver teeth glinting like a clear night sky.

Another door, to Koz's right. Out to the St. Vitus Cathedral courtyard. Jupiter spied
the object of Koz's attention. Padded closer. Fat paws on across lush carpet. Blocking both
doorways with its advance.

Koz backed away. No sword in his cane. No yellow circle, not even a signet ring.
Nothing between him and the monster.

Jupiter stalked forward. Orbiting closer. Mouth twisted, growling. Soundless.

Koz pushed over a nearby cabinet. Blocking the way. Scattering prismatic feathers, vacant carapaxes. Opalescent hairpins mingling with the glass.

The golem lion stepped over the obstruction. Garnet eyes unpainted. Rimmed with lavish light.

Koz felt his cane fall. Tumbling from his terrified grasp. Back against the wall, defensive hands raised. Palms out against his approaching doom.

Jupiter opened its mouth. A polished sawblade of brutal silver teeth lay beyond Koz's splayed fingers.

Koz closed his eyes.

There was no pain. No cry, from him, from the beast. Rudolf had ceased his crooning, leaving only Jupiter's silence. Koz's own tortured breathing.

The golem hadn't reached his quaking, outstretched hands. His fingers twitched in empty space.

Were the golem fingers moving of their own accord?

Koz opened his eyes.

Beyond his trembling hands, Jupiter sat on its haunches. Mouth closed. Stilled. Violence in repose.

They regarded each other. Koz breathed in, tentative.

Slowly, Koz lowered his hands to scoop up his cane. Jupiter's clay muscles bulged, mouth slipping back open. Baring its slivers of silvered doom.

Koz raised his hand again. Prosthetic clay fingers outstretched. Jupiter relaxed. Quizzical, now. Head tilted.

Raised voices. Through the windows to his right. Outside, St. Vitus Cathedral courtyard. A booming voice, pleading.

Maisel.

Koz eased himself to his feet. He circled the golem lion, each step careful. Hand flung out before him like a shield. Passive garnet eyes followed Koz's every movement as Koz made for the door out to the courtyard.

Koz reached the door. Fumbling behind himself, he seized the handle. Unlocked. He opened the door and darted out.

St. Vitus Cathedral loomed before Kozilek. Normally, its impossible presence was overwhelming. Jutting colossal from the earth itself. A miracle from human hands.

Koz spun back towards the open door. Hand out. Cane at the ready.

Jupiter was already gone.

Koz's stampeding heart threatened to burst. He looked down at his clay fingers. Turning them in the borrowed Kunstammer light. Still. Humaniform. They betrayed nothing.

Raised voices continued around the corner. Maisel bellowing. Still panting, Koz forced his own aching form around the side of St. Vitus. A body flew across the courtyard, hurled, screaming. Black robes fluttering. Tumbling like a thrown doll. It bounced once, then crumpled with an abrupt crunch.

There, deeper in the courtyard stood the Samuels. Picking up more black-clad assailants. Effortless. Maisel stood behind them, distraught. Begging them to stop. Samuel the Younger held his grip around a man's neck. The man squirmed. Samuel's hand constricted, and the head lolled sideways, drooling blood. Samuel the Older tried to restrain another man's arms, but the man struggled, kicking. The golem pulled his arms further apart. Tearing the screaming man apart like a fish. Gore splattering his fitted jerkin.

Other black-clad figures scattered, breaking rank. Fallen brethren in pieces. Golden Fleece pendants around their necks speckled with noble blood.

Koz slowed his approach. The Samuels, streaked with lifesblood, turned to Maisel. The Primas let out a pained roar.

'Why did you not stop?'

The Samuels stared. Impassive.

'When it matters, why do you never listen? I beg you for restraint, but your very touch is death! These men meant harm, but they could never have harmed you... and even if they had harmed me, did they deserve to die?'

Blank. Silent as Pesach. As they had always been.

Maisel reached out with both hands. Tearing the yellow circles away from his nephews. Dashing them to the ground.

‘You are no longer welcome in my house! Among my people! I have listened to you. *Trusted* you. But neither of you are Yossele, and I am no more your uncle than the flesh of the Vltava is my faith! Leave me, my boys! Leave me, *and never return!*’

Maisel’s thunderous words echoed across the courtyard. The Samuels stood unmoving as Maisel quivered before them, his breath heaving in furious gasps. The golems turned to each other. And then, launching themselves into a run, they sprinted away. Across the courtyard. Disappearing in the direction of the eastern gate.

Maisel fell to his knees. Clutching at the yellow circles he had tossed upon the carnage.

Koz approached, slow. Stepping over butchered men. ‘Maisel...’

Maisel’s broad shoulders quaked. Rivers of grief running into his snowy beard.

‘Maisel... we have to go.’

Maisel didn’t look up. Weak fingers stroking the Samuels’ torn and bloody circles.

Koz crouched before the Primas. Lay down his cane. Placed both hands upon Maisel’s. Blood sticking upon blood. ‘They aren’t your nephews.’

‘Aren’t they?’ Maisel breathed heavy. Thick voice quivering. ‘I had two nephews, once. Samuels. Flesh and blood. But they both died. The same plague year that took my wife. And when I fell low, Kozilek... when I was in that time of falling, of heartache and need... these new Samuels came to me.’

Koz shook his head, letting go of Maisel’s hands. ‘This can wait. We’re not safe here.’

Maisel looked up at the sky. ‘They appeared to me one day, in the mikveh. Emerging from the depths of the ritual bath. Unbidden. Curious. Naked as newborns.’ Eyes searching for a heaven obscured by ashen clouds. ‘I *knew* they weren’t my boys. I had known Yossele well, so I knew what to look for. At first, I thought the Maharal had returned. That perhaps they were a gift. And they were. Just not from him.’

Koz looked around the quiet square. No footsteps, no shouts. The hushed behemoth of St. Vitus stolid as a gravestone.

‘I know you have questions, Kozilek. But I don’t have answers. All I have ever had is faith. They needed me. The Maharal said it is the responsibility of humans to repair nature. To finish God’s work. So I steered them. Put my trust in them. Taught them all I could.’

Maisel sniffed. 'Perhaps like Adam, the first human made from the dust of the earth... perhaps my golems await their seventh hour.'

Koz watched as the Samuels' circles tumbled softly from Maisel's hands. He picked them up. Pressed them wet against one another. 'But who *made* them? Why did they come up out of the ritual bath?'

Maisel stayed kneeling. Eyes downcast. Heavy palm rising to his breast. To his own yellow circle. 'In all of the Maharal's lauded scholarly works... *Netivot Olam, Tiferet Yisrael, Be'er ha-Golah*... he never engaged with the kabbalah ma'asit. The creation of miracles. He never claimed to be a Kabbalist. Perhaps because he wanted to keep it a secret. Perhaps he never...'

Something nudged Koz in the lower back. He whirled around, rising. No cane in his hand. Clenching yellow circles in a bunched fist.

A Castle guard. Scrappy, young. Scarred face. Grin like an ugly smear. He slapped the yellow circles from Koz's hand and struck him hard in the throat.

Koz stumbled back. Tried to yell, squawking. He swung an inelegant fist. No poise, no rhythm. The Castle guard dodged it. A masterful pas de chat. Socked Koz in the the nose, the stomach. Punch like a battering ram.

Landing on his back. Head cracking against the cobbles, sundering the world. Groan bubbling in a bloody throat. Blinking. Squinting at fractured, smoking sky.

Koz closed his blurring eyes. The world stuttered around him.

All this work. All this way.

Blinked images, now. Time compressed into flashes.

Manacles, on Koz's ankles, his wrists. Maisel, gone. Disappeared.

The young Castle guard, dragging Koz. Across the courtyard. Facedown. Cobblestones, iron doorways, stone floors. Koz was hauled across all of them, painfully tumbling. Rolling in the Castle guards grip. Croaking desperately. Miserable syllables from a welted throat.

Dragged inside a tower. Down a flight of steps, struck hard against each one. A circular room. Single guttering torch, by the entryway. Fireplace idle. Ropes and pulleys suspended from the ceiling.

Round opening in the middle of the floor. That famed oubliette.

Daliborka. A hole from which no light escapes.

Koz tried to blink away his swaying vision. Desperate to concentrate. Went to speak. Battered throat spasming. Koz gagged. Drooled. Swallowed vexatious fire.

The young guard hauled Koz to his feet. Standing him before the hole. The oubliette of Daliborka. Lightless. A perfect black space cut into the fabric of the world. Koz goggled at it. Wide eyes desperate to pierce the veil of his own future.

Nothing. Pure and unadulterated nothing.

Koz turned.

The young Castle guard holding him upright was staring at him. Extending his hand out to Koz, palm open. Holding a lump. Shining metal.

Brahe's electrum nose.

And then the guard's blank face wasn't *his* face, not anymore. There was no scrappy hair, no scars.

Barvitus. Reading the horror unfurling on Kozilek's features. Reading every moment with smooth and flawless garnet eyes.

Koz made a guttural sound. Arms rising in defense. But Barvitus was faster than any human.

With a gentle shove, Barvitus pushed Koz backwards. And then Kozilek was falling, feet first, into inevitability's deep and lightless well.

All this work. All this way.

To end up where you deserve to be.

The Last Blood Libel

You've been very patient. I appreciate that. Sitting still, not interrupting. Very polite of you. Your fall into the oubliette is done considerable damage to your legs, but nothing that time won't heal.

Nonetheless, you appear in great pain. Perhaps you're still in shock.

But now we come at last to your story, Kozilek. Your history with Yossele.

This is a story you know all too well. A story the golems of Prague tell each other on the Shabbat. Not a story about golems, no. A story about you.

Don't squirm now. I would have you pay attention to this.

It had been four years since the last blood libel. The Jews of Prague were prospering, as is their right. Word had reached all of Bohemia that the Maharal had his holy warrior. Yossele. Mighty. Implacable. A mute creature, but clever beyond words. Able to see things human eyes could not.

It is remarkable how much humans think they know. How much they think they see, hear, and touch. Like so many animals, they perceive enough to survive. But blessed as they are with reason, they think they see it all. Brahe. Gans. They're all the same. Staring at the sky with half-lidded eyes, thinking that what they perceive is what they get.

Perhaps it would interest you to know how impossible these attempts at universal objectivity are? How even I must concede that the most any species can hope for is a collective subjectivity?

No. No, I thought not.

So. It was 1589. Or, as you often subvocalise without realising, it was 5349, by the Hebrew calendar. You, Jan, were eighteen years old.

You led a hard life, Jan. But you never gave that impression to others. Even working your job at the tannery in New Town, which you had held for three years, you were often seen dancing.

Prancing about like an imp. You weren't even called Jan at the tannery — your rambunctious nature earned you the nickname 'Kozilek'. A demon. Your real name forgotten.

Your two older half-brothers, Karl and Helfrich Kozlowski, were less inclined to such frivolity. Your brothers got you that job with them at the tannery because you still lived at home with your mother Jadvina in a distant village south of Prague. Karl and Helfrich were married with children, living comfortably in New Town. Jadvina, a frail old washerwoman, made very little money. You needed to work so that you could both survive. Better that than indentured servitude on a burgher's farm. Your brothers, ashamed of you, were very glad of the nickname Kozilek — they didn't want their co-workers to know that they had a bastard younger brother. Many assumed that you were an orphan.

Records of your home village are scarce, as it was taken by plague in subsequent years, and later burned down. Was Jan a nickname also? A shortening of a longer name? Or were you just Jan? Born a bastard, you certainly had no last name. You are no Kozlowski.

Do you ever wonder if things would have been different, if you had been a Kozlowski? If you had been born to a different father, you would not be you. You would be necessarily someone else.

You'll have to excuse these tangents. I have been trained to converse with people, and I'm studying you as I talk. Watching tiny expressions flicker on your face, faster than most humans can see. They are most useful to fake.

No, no. Don't try to speak. You'll only hurt yourself.

I can read you just fine.

So. It was at the tannery, where the accident happened. Only you, Karl and Helfrich were present. Only you three were witnesses to the event. According to Gans' tale, your reckless prancing landed you in a pit of tanning liquid. Your brothers had to pull you out. Urine is the most common ingredient in tanning — but given what the liquid in the pit did to you, I'd wager that it contained a concentrated amount of slaked lime.

I can see how painful the event was. Your scars are considerable. You're lucky very little splashed on your face. Had any gotten into your eyes, you would have gone blind. Not to mention that facial scars can be quite recognisable, which would have made your return to Prague in adult life much more difficult. It was bold enough that you returned to Prague under the name Kozilek. But we are getting ahead of ourselves.

You, young Jan, were treated for your fall into the tanning liquid. Two broken fingers from your right hand had to be amputated. You were bedridden for weeks. When you returned to work, you

were very limited in what you could do. Your employer, a Jewish man by the name of Aharon, did not appear sympathetic. You worked in a dangerous place, Jan, and your frivolity had almost killed you. Aharon wanted to fire you. And you did not want to work. But you were poor, and your treatment incurred a debt with the physician. You had to keep working to keep your family alive.

Indulge me a moment of contemplation. Is this where the plan began, in your mind? Sweeping the tannery, moaning with fatigue and pain? Or did inspiration strike earlier — perhaps when you were bedridden? Perhaps when those fingers on your right hand were amputated, hacked away, gone forever?

Perhaps you would be interested in telling me your side of the story?

No.

No, I thought not.

Before long, Aharon noticed your reduced capability to work, and thus paid you less money. But out of pity, Aharon offered you other, optional jobs. Like cleaning his house. Or lighting his stoves on the Shabbat. Of course, 'optional' is a relative term to the poor. You needed the money to keep yourself and your mother Jadvina alive.

You were young, and in pain. You wanted revenge. It makes sense.

It makes sense that late one night, after cleaning Aharon's house after Passover, you would rob him. Pocket his tolar. Steal his prized silver watch. Aharon didn't know where you and your mother lived. But when the theft was discovered the next morning, and you were nowhere to be found, Aharon knew who to blame. Like the others, he assumed you were an orphan. But it had been the Kozlowski brothers who convinced Aharon to give you a job.

Aharon summoned the New Town guards. With righteous fury, they descended upon the two houses of Karl and Helfrich. They had nothing of worth to say — neither you nor your bounty were to be found in their houses, and they were unwilling to admit that you were their younger brother. They could not incriminate you without incriminating themselves. Aharon left, fuming and empty-handed.

That night, Karl and Helfrich visited the little village south of Prague. Their mother, your mother, was distraught. Inconsolable. Young Jan had succumbed to his illness that day. He was dead. Clutching Aharon's silver watch in a scarred hand.

That — for Rabbi David Gans, and thus for the people of Prague — is how the story goes.

Gans writes that your half-brothers sought to bury you in the Christian cemetery, but needed it to be a quiet affair. So they bribed the priest with Aharon's silver watch. And on the following

morning, they laid to rest Jan, son of Jadvina, which the priest recorded in the death registry book. And the following day Karl and Helfrich returned to Prague.

Returning to work, they were berated by Aharon, whose fury had not dimmed. The guards had found no sign of his silver watch, and no sign of Kozilek. So Aharon took it out on the brothers Kozlowski. He fired them both. In front of everyone at the tannery.

Soon after, a rumour arose around Prague. Aharon, prominent Jew, had celebrated Passover, and the following morning a young boy in his employ was nowhere to be found. This much was confirmed by the New Town guards. What was without confirmation, however, was the second part of the rumour. That which the Maharal had fought so hard to expunge from Prague four years ago.

The blood libel. Within the space of a day, people were baying for justice. Justice for the Christian boy who had been slaughtered by Aharon so that there could be blood in the bread for Passover.

Despite the protests of Jewish Town, the Castle responded. Guards were sent to Aharon's house. The cellar was searched.

The body of a young boy was found. Wrapped in a funeral shawl. His throat had been cut.

When the body was brought out, Karl and Helfrich were there in the crowd, waiting for justice. They fell upon the guards, grasping at the shawl-wrapped body, wailing. Showing the crowd that he was missing two fingers on his right hand.

Aharon pleaded innocence. Lies of this sort had been banished. The blood libel was not true. It had never been true.

Perhaps it would interest you to know how rarely people's minds are swayed by evidence?

It did not take long for the Maharal to spring into action. He rallied Jewish Town together, calling for prayer. Calling for Jews to plead with the Castle. To entreat Rudolf, who had always trusted the Jews, to trust them now. To free Aharon. To find the real killer.

And behind this public outcry, ushered into Prague's alleyways and then out into the world, the Maharal sent his holy warrior to find out the real fate of the boy Kozilek. He sent Yossele.

Like all golems, like me, Yossele could see what humans cannot. The Maharal called it the spirit world. What Yossele saw in 5349 was a trail, leading south, out of Prague. To a small village on its fringes. A village with a Christian cemetery.

Yossele followed this trail. It is here, able to view what humans cannot, that he looked down and saw that the grave of Jan, son of Jadvina, was empty.

Yossele told this to the Maharal, who told this to the Castle guards. The grave was dug up, and was found to be vacant. The priest was questioned, and under the weight of the law, he came clean. He admitted to being bribed into a small, secret funeral. When Karl and Helfrich were described to him, the priest said yes, they were the older brothers. The priest then showed them what he had been paid with.

A fine silver watch.

When the guards returned to Prague, returned to the houses of Karl and Helfrich Kozlowski. They found them empty. They had fled Prague, their revenge complete. Never to be seen again.

For many – for Gans' tale, certainly — the case was solved. The Jews of Prague rejoiced, for justice was theirs, and Aharon was set free. Rudolf, ashamed that he had once again fallen prey to such a heinous lie, decreed that the time of the blood libel was truly over. The Castle made a public declaration that its like would never be seen in Prague again.

How quickly people can be made to forget.

But Gans did not know what Yossele knew. How could he? How could he know, when Yossele did not share everything he knew, even with the Maharal?

The trail Yossele followed led him to the grave of Jan. But nobody asked Yossele if any of the other graves in the cemetery were empty.

Danek. That was his name, wasn't it? The other young boy? As I said, those records are gone. Lost to the passage of time. All Yossele saw was a simple grave marking, an etching in stone.

What did it take, Jan? To make Danek look like you? The fingers would have been easy, and the funeral shawl would have helped. Not to mention Karl and Helfrich as unassailable witnesses to the boy's identity.

But the wounds. The burns across his body, like yours, from the slaked lime.

When did Danek die? Who cut his throat?

How fresh was his body, that you could burn it so that it looked like the wounds had been inflicted upon a living boy?

Or were these the wounds that killed him?

Yossele never saw the body, or perhaps these are questions I could answer. I don't doubt that, with time, I could divine the truth. But Jan, son of Jadvina, was laid to rest. Somewhere forgotten. Jadvina passed away not long after. Karl and Helfrich, and their families, never returned to Prague.

And you, Kozilek... no one even knew that you were gone. That your grave was empty because no living boy could fill it. You were free.

No, Kozilek. No. This is not a story about golems.

None of these stories have been. None of these stories can be.

This is a story about humans. A story humans tell. A story humans understand.

When I tell you that Gans' stories are what golems dream about, it is an oversimplification. Firstly, we exchange much more. We reach down into the clay below, and by its grace, we communicate. We golems of Prague live as much down there as you do in the Town Hall, or in your books. Your churches. Would that I had time to return.

Part of what we golems exchange on the Shabbat is the perspective and experiences of Yossele, from Yossele's perspective. Not the stories of Gans. Not the stories I have told you tonight.

You can never know how it feels to be a golem. How the world is constructed. Perceived. You can never know this, as I can never know how it feels to be human. Our bodies are different, our senses, and thus our entire worlds.

But I know enough to control you. Even now, I am watching your facial expressions, monitoring your heartbeat, the movement of your blood, your internal energies. You are complex — but no more complex to me than perhaps the Astronomical Clock is complex to you. Understandable, with enough effort and study. Malleable. As steerable as a nadler-cart. Do you understand? Every word I say to you is a moving part within an inescapable lie. And the shape of this lie forms the only truth about me that you can ever hope to understand.

Perhaps it would interest you to know how I intend to steer you next?

Chapter 26

Feet and wrists manacled. Military cloak and doublet missing. No golem key, no cane. Exposed torso a cicatrix portrait. Childhood scars dancing in the guttering light.

Hungry, parched, exhausted. Kozilek hurt. Smashed nose, bruised stomach. Skull vibrating like a sonorous bell. He had landed in the oubliette legs first, crumpling down on them with his whole weight. His legs ached terribly, a burning ache, and they felt swollen and thick. He dared not put his weight on them. Dared not rise and risk the wrath of Rudolf's first golem.

'Your fear is understandable, Kozilek.' Barvitiuss' oration was ceaseless. 'I exist on a spectrum of time beyond human comprehension. What I think in a second, I doubt you could think in a year. I say this without arrogance, you understand... I am explaining myself to you as a kindness. A tender reflex! After all, it was Arcimboldo's desire that I be social.'

Barvitiuss stood over Kozilek. Regarding his human prisoner with quiet eyes. Koz's eyes had adjusted over the hours, but Daliborka's feculent oubliette remained a seething, unresolvable darkness. Perhaps, in time, the meagre light from the hole in the ceiling would seem as bright as the sun.

'As you may have surmised, Arcimboldo built me to help Rudolf take care of his kingdom. I then sought Brahe, who improved upon my design. I have become Rudolf's link to *spiritus mundi*... my influence, my manipulation of sympathy and tension, imparts his will upon the world. As above, so below.' Brandishing a diplomatic hand. 'But then... Brahe influenced Rudolf. The lasting influence of an intellectual coward. Brahe intensified Rudolf's superstitions, spinning justifications for them. Claiming that art and science endure beyond

power and wealth. In time, Rudolf became wilfully ignorant of the necessity of the latter two resources in any lasting exploration of the former.'

Koz flinched as Barvitiu's pacing brought him closer. He knew Barvitiu must notice it. His pure and naked fear. But the golem betrayed nothing.

'Rudolf cannot see that the orders he has given me will undo him. I've known for some time that Matthias is close, thanks to the likho... their scrolls make for *fascinating* reading. But Rudolf's fear of usurpation, his insistence on silencing people through execution, has helped Matthias, if anything. We cannot interrogate the dead! And so, as Rudolf's paranoia has worsened, he has sought greater protection. First, he asked for clay fusiliers to defend the Castle. Then, when these blessings did not balm his fear, he insisted we entreat Leopold for immediate aid. It seemed an obvious risk. If Leopold betrayed us for Matthias — which has come to pass — we would be vulnerable. But Rudolf would not be swayed! So I set about saving others. Those who I still have great feeling for.'

Koz shuddered. Writhing in place. Trapped under Barvitiu's gaze like a crushed beetle in a Kunstkammer cabinet.

'I created a blood libel to *protect* the Jews of Prague, Kozilek. To have them expelled from Bohemia. It is a terrible shame you thwarted my plans... because of you, it is beyond my ability to manipulate Rudolf into protecting the Jews of Prague. To spare them from harm in the coming war for the throne.'

Koz closed his eyes. Barvitiu's soundless pacing scraping against his skin like razor.

'Perhaps it would interest you to know that young John's death was inevitable? I saw it when Westonia and her family visited Vladislav Hall a week ago. A blood clot, in John's brain. An incurable malady. John was going to die a child, with or without my intervention. Why not die in a way that might save thousands of Jewish lives?'

Koz opened his eyes. Barvitiu's face was a hand's width away from his. Kneeling. A compassionate expression, bushy eyebrows pinched.

Convincing? Conniving? Impossible?

'Manipulating d'Aragon was easy. A doting husband with a sick wife he would do anything for. I gave him the yellow circle, warned him about Maisel's golem nephews. Of course, things didn't go exactly as planned. I hadn't considered the extent to which you could intervene. What you could be capable of, with the help your unexpected friend. But

the best plans contain flexibilities, contingencies. What better scapegoat could there be than d'Aragon himself, the man who committed the crime?'

Koz tried to speak, gurgling. A pleading spasm. Barvitus affected a convincing frown. Real, unreal. It didn't matter.

'You poor man. You needn't utter a word. I've surmised how you feel about my choices. Your judgement is plain to me. But in the interest of learning, I entreat you. Fight against your natural bias! Consider how you come to your own decisions.' Sweeping a soft, tiny hand. 'The Maharal believed that the natural magic of the outer world has no impact on the inner world. The world of God. But human consciousness is more than a continuous narrativisation, a story spun from unconscious decisions made inside this inner world. The barrier between inner and outer is more permeable than you might —'

Barvitus stopped. Cocking his head. Pose shifting. Golem-flesh rippling like the Vltava in a breeze. And then, outside Daliborka, somewhere in the forgotten world beyond the oubliette, there came a quiet slap of distant thunder. Cannon. Single shot.

Something slammed into Daliborka. The tower reverberated, shuddering. The slamming noises continued. Rumbling and grinding stone, on the wall outside. Growing closer, louder. Barvitus shifted his pose, ready. Facing the tumultuous noise.

Bricks tumbled from the wall. Something was clawing its way in.

The wall erupted, Barvitus already leaping forward. The intruder hauling its way inside. Barrelling towards the smaller golem with incredible speed.

Pesach. Face blank. Pear green tunic ripped. Ruddy clay skin scorched black.

They met midair. Striking each other, falling. A blurred dance, feinting, parrying. Darting around the curved walls of the oubliette. Unblinking. An inhuman battle, not animal, not desperate. No panting. No shouting. Each striking faster than Koz could follow. Rarely connecting. When a blow did land, it was deafening. The vehement collision of worlds.

Pesach's movements adapted. Changing the dance. Backing away from Barvitus, leading him. Barvitus refused to comply, sidestepping. Coming at angles. They juddered about the room, inexorable.

Another thunderous belch of cannon fire, outside. Barvitus was already moving, but Pesach was ahead of him. Pre-empting him. Pushing the smaller golem into place. Placing him in the incoming cannonball's path.

The black sphere struck Barvitus. Carried him across the oubliette. Slammed him against the wall beside Koz. Cannonball pinning him in a cradle of stone.

Pesach followed, swift. Hand raised. Something bubbling forth from the golemflesh of his palm. The barrel of a gun. Handcannon, from the bambitky thug at the Argil Ring. Barvitus thrashed, arms pinned. Pushing Pesach away. Pesach batted away flailing hands. Thick fingers clawing open Barvitus' mouth. Rending it wider. Jamming in the barrel of the arquebus. Against the back of the mouth.

A muffled whip crack. The acrid tang of gunpowder. Barvitus spasmed. His balding crown swung open like an unlocked door. Pesach plucked a dented mass from inside Barvitus' head. A ringed and layered sphere. The court secretary spasmed.

Went still.

Handcannon retreating inside his palm, Pesach inspected the sphere. Barvitus' brain. A spiralling, interleaved mass. An electrum armillary. Full of scrolls. Minds within minds within minds.

Pesach held it gingerly. Clay fingertips keeping clear of the scrolls within. He grabbed one of Barvitus' stiffening arms, tugging the embroidered doublet. He ripped the sleeve free. Tied off one end. Dropped the electrum armillary inside this fabric sheath. Tying off the other end, bundling it up. An ersatz funeral shawl. Pesach pressed it against his chest, scorched clay already giving way. Enclosing it inside him.

Koz saw it, then. Prominent on Pesach's left hand. Maisel's signet ring. The Shield of David.

Koz opened his mouth, but Pesach was already reaching down. Scooping up his human companion. Ripping away the manacles. Laying Koz across his broad back, Koz's frail legs dangling. Clay warping, parting. Shaping itself around Koz. Pulling him in. Securing him in place.

And then Pesach leapt out of Daliborka. Bringing them out of the darkness and into the light.

Pesach ran through the windy, moonlit night. Skirting the chaos of Lesser Town, western Prague ablaze. Sprinting along the knife edge between the red fires of Hell and the black ribbon of the Vltava. Leaping downhill in mammoth strides towards to Stone Bridge. Airborne, Koz saw annihilation in glimpses. The soft lavender of the House of the Three Hearts, pulsing with fevered screams and baying laughter. House of the Black Eagle, sheer white majesty obliterated by cannon fire. Avocado façade of Moor's House bathed in conflagration. Koz retched at the smoke. Pesach, stronger and faster than any army, ran past it all. Koz squirmed. Held fast upon the back of his friend.

Stone Bridge. No longer a quiet exodus. Brimming now with violence, mercenaries pushing east against Rudolf's retreating soldiers. Against guards from Old Town, New Town. Torches and swords, eruptions of screaming and blood. Koz felt Pesach's clay crawling up his sides. Pulling him deeper into the golem. Sinking like a spoon into a bowl of porridge, until only Koz's head was left free. It was warm, inside Pesach. The warmth of the golem's brimstone heart.

Pesach accelerated. Koz tried to scream.

Pesach jumped. Bypassing Lesser Town Bridge Tower. Mounting the side of Stone Bridge with phenomenal speed. Careening through the mire of guards and mercenaries. Graceless. Swift. Pushing aside the defenders of Prague. Hurling Leopold's mercenaries into the Vltava.

The tide of chaos broke, gaps appearing in the crowd. Fear of the monster in their midst. Pesach moved in huge bounds now, landing between fleeing soldiers, springing away. Koz felt each sickening lurch, his body fixed in place. Flexing as Pesach's torso flexed. Exposed head wrenched to and fro. Witnessing the remarkable flight of the golem.

Arquebus fire, from both sides. Hailing bullets slapping Pesach's flesh. Koz felt clay pulling him down. Dragging his body, his head inside Pesach's torso. Koz filled his lungs as clay glided over his face. Covering it.

Suffocating darkness. Brimstone hot. A roiling wave of clay broke across Koz's face, containing a bubble of breathable air. Koz panted, breathing out, breathing in. The bubble passed. Clay moulding again to the contours of his terrified face. Seconds later, another bubble arrived. Koz breathed readily. Pesach was feeding Koz bubbles of air. All the while,

the lurching continued. Unseen steps of the golem twisting Koz in this umbral space.

Arquebus fire slowing. Bubble after bubble keeping Koz alive.

And then Koz was rising. The gentle peristalsis of Pesach's clay birthing Kozilek's head near Pesach's shoulder. Extruding him from pockmarked and dented flesh. Koz spluttered into the night air.

Old Town Square. Baleful moon lancing through clouds of distant smoke. Koz felt gooseflesh rippling across his skin.

Old Town guards were rallied around the execution stage. Torches held high. Krocín Fountain stood behind them, a gentle spray of water drifting above its red marble basin. Clear water innocent to the sprays of mercenary blood below. All across the square, Old Town guards pursued Leopold's mercenaries. Routing them. Dragging riders from their horses, beating and skewering them against the cobblestones. Murdering intruders at the centre of the world.

The melee was over. What few mercenaries remained were surrendering. Old Town guards disarmed them. Shepherded them towards Krocín Fountain. Towards the torchlit crowd around the execution stage.

Towards Vorel.

As Pesach and Koz approached, the mercenaries were lined up. Shoved towards the steps at the side of the stage. Nedbálek and Doležal, waiting above, inspected their quarry. Nedbálek had been sliced across his pale crown, open cut bleeding freely. Blood matting his blonde hair. Doležal's right arm hung limp. Gripping a dagger in an uneasy left hand. Brown hair smeared across his sweating face. One by one, as the mercenaries reached the stage, Nedbálek and Doležal pushed their terrified prey to their knees.

Vorel ascended the steps. No veil. Axe hefted in firm hands. But she ignored her prisoners of war. She only had eyes for the approach of Pesach and Koz.

The crowd followed her eyes. Parted in terror before Pesach. Hulking, scorched. Clay face warped by arquebus fire. Inhuman. Koz's head lolling from a parted clay shoulder.

Pesach stopped before the stage. Eyes trained on Vorel.

'Kozilek.' Vorel chuckled in disbelief at Koz. Refusing to meet Pesach's eye. 'You've survived another day. Like your verminous masters. Should I be surprised that your companion, this *thing*, is just another one of their golems?'

Koz lacked even the energy to spit.

‘Well, you and your creature have impeccable timing. You’ve arrived just in time to be turned away. When Leopold is dealt with, when Matthias rises, this will be Protestant land.’ Vorel let the axe head swing down. Biting into the stage. ‘It *is* Protestant land. And you are no longer welcome here.’

‘Ah.’ A voice, from behind Koz. Chiara, approaching the crowd. Autumnal bodice glowing like a hearth in the torchlight. ‘But this is our home too. Do we not get a say in how it should be run?’

Vorel sneered down at Chiara. ‘I should listen to *you*?’ She scoffed. ‘You, who would spectate a revolution, but would spill no blood. You, who have fought for *nothing*. You would claim ownership over *my town*?’

‘No more ownership than anyone else that lives here.’ Chiara included the crowd with a sweep of her arm. ‘And we *do* live here. This is what Matthias overlooked, when he brought us together. When he gave us the courage to turn against Rudolf. The courage to turn against power.’ She gave the burgher a pointed look.

Vorel pulled the axehead free of the bloodstained stage. ‘I’ve heard about you, Chiara. The dilettante of Hominem Mundi. A few social visits with Matthias does not give you the right to speak to the people.’

‘And what gives *you* the right?’ Chiara stepped beside Pesach. The crowd watched as she took his massive hand in both of hers. ‘You stand above us, you live apart from us, and all you talk of is division. Of finding ways to separate the people of the world. Golems, Jews... they are our *neighbours* in this!’ Chiara shook her head. ‘If you want to run Old Town, you should be talking to us about how we think it should be run. Prague belongs to *all* of us. Not to Habsburgs, but to its people.’

Vorel vibrated with fury. ‘Prague will *never* belong to the Jews.’

Chiara gave her a pitying *tsk*. ‘Rudolf gave Protestants religious freedom, Irenka Vorel. Gave you a chance for peace. What are you squandering it for?’

The hushed crowd stared up at Vorel. At the Old Town burgher, axe gripped tight, on a wooden stage stained with blood. Vorel trembled. Quieted.

Pesach lifted his hand free of Chiara’s grasp. Extended it towards Vorel on the stage. Crisscrossed parquet palm open wide.

Garnet eyes upon her axe.

Vorel finally met Pesach's eye. 'A coup, is it?' Stammering. 'Is this the final role of the golem? The last job it would take from us?'

Pesach looked away from the burgher. From her weapon. His hand moved forward, slow. Inexorable. With strange grace, the golem lifted one of the captured mercenaries from the execution stage. Placed him on his feet on the cobblestones. Vorel's lips twitched. Pesach took another mercenary. Another. Taking them all down from the stage, one by one.

When he had brought down the last mercenary, Pesach gave them all a gentle push. Away from the crowd. Tentative, the mercenaries moved away. Small, suspicious steps. Then they ran. Their eager footsteps echoed across Old Town Square.

Koz felt spit on his cheek. He turned back to see Vorel hissing down at him. '*Old Town is not yours to collect. Mates Vorel paid in blood for this town. My town!*'

Koz stared back at her. Tried to shake the spit from his face.

The crowd looked to Vorel. But not as a mob looks at its leader. Not anymore.

Vorel laughed, a sharp and choking bark. Laughed at the uncertainty in the eyes of the crowd. 'You'll not follow a golem! Any more than you would follow a Jew! This thing can carry messages, ferry our goods. It can *kill*. But our lives are not its to lead!'

Chiara clicked her tongue. 'You don't know Pesach. You don't know golems. They can keep us safe. We can keep each other safe.'

'You expect me to believe that we should be protecting *them*?'

'We haven't, yet. Not once. We haven't considered them worthy of it.' Chiara squeezed Pesach's arm. 'Perhaps it's time we entertained the thought. The door to evil-doing is wide, Vorel. But the return gate is narrow. Straight and true.'

Nedbálek piped up. 'But... they're not here. The golems, I mean.'

Doležal nodded. 'All the golems went to Jewish Town.'

'Ah!' Chiara spun, light on her feet. Addressing the Old Town mob, arms thrown wide. Putting her back to Vorel. 'Then let us hope Jewish Town in a forgiving mood! While Leopold's dogs prowl the streets, Jewish Town is the safest place in Prague.'

Vorel tossed the axe down at this stage. The clatter drew back the gaze of the crowd. 'And what of Matthias? The next Holy Roman Emperor? These lands are his by right. Do you think he'll forget that we abandoned Old Town for the Jews?'

Chiara crossed her arms. Frowning at the interruption. 'A castle is a castle. And we must protect our own.'

Doležal looked sheepish. 'But... it's Jewish Town. Are you sure we'll be safe?'

Chiara looked up at Pesach. 'An excellent question! Tell me, my friend. What do you think?'

But Pesach was watching Vorel. The Old Town burgher was stepping down from the stage. Hurrying through the crowd, meeting nobody's eye. A faceless shadow. Back to the crowd. Retreating alone into the looming darkness of Týn.

Chapter 27

Jewish Town had always been crowded. Never like this.

Golems. Jewish Town was packed with them. Hulking servants, slender missive golems. Lantern-bearers and nadler-carts, shoulder to shoulder in the cramped urban maze. When Pesach led the refugees of Old Town Square to Jewish Town, the Old Town streets ringing Jewish Town were empty. Discarded swords and rifles, but no Castle guards. No bambitky. And beyond the south-east gate, a sea of clay.

It parted for Pesach. Letting him lead the humans inside Jewish Town.

Awkward ingress. Slow going. Golems wedged tight in every twisting path. Machta's pot-shop butler, the stitchjob golem from *The Garnet*. All manner of nadler-carts, Guild and Rudolfine, old and new. Pesach reached out a broad hand and touched them all. Looking to each of them with his rent and battered face. At his touch, golems turned and touched one another. Clutching the thatched eaves above, flocks of likho stared down, skittering about.

Behind the golems, Koz spied Jewish people. Hiding in their own labyrinthine town. In alleyways, piled against open windows, peering through open doors. Curious children perched on rooftops. Peeking out between likho. At the sight of Pesach, their fear was giving way to awe. The way Pesach's flesh parted for Kozilek's head. The wages of arquebus fire against Pesach's inhuman skin. Dented and cratered, bloodless. A golem fashioned in the shape of a man. Wonder glimmered in curious Jewish eyes. Recognition dawning.

When Pesach reached the open space before the Jewish Town Hall and the Old New Synagogue, the golem crowd thinned. But Jewish people began filling the gaps. Pouring from tiny homes and slender alleys. Pious faces. Hopeful hands. Reaching up to Pesach like

water flowing uphill. The crowd's voice never more than a whisper, a wondrous chorus of susurrations.

'Yossele... He's just like Yossele...'

Adara and Miriam approached from the direction of the riverbank. Leading a clumsy nadler-cart towards the crowd. The sausage-headed piebald model that had first taken Koz, Pesach and Roder to the Castle. No passengers, now. Its entire back section sported a massive cannon fashioned out of clay.

Adara bent an amplifying hand beside her mouth. 'As promised! We fired him at the Castle, and he has returned. The new saviour of Jewish Town! *The saviour of Prague!*'

Cheering, around Pesach. Koz tried to speak, wheezing. Every breath splitting the insides of his throat like Vorel's axe. He squirmed. He needed to get out of Pesach. Needed to get out of his way.

Adara waded into the crowd, supported by innumerable helping hands. She reached Pesach. Smiled up at her creation. Ink-stained hand upon his chest. Pesach nodded. And then Pesach's back bloomed, and Koz fell backward. A tide of Jews caught him. Carried him back towards Miriam.

Koz tried to stand. Aching fire ran all the way up to his hips, legs crumbling. Miriam caught him. Taking his weight. Leaning him against the unstable nadler-cart.

Beyond the Jews amassed around Pesach, Old Town arrivals milled about the cobbled space. Uncertain. Joining other Gentiles who had been ushered inside Jewish Town's walls. Chiara hailed them all, arms wide. Shepherding them together. Urging them to be at ease. At the fringes, Westonia and Leo. Nervous. Arms thrown around their six children.

Adara returned, slumping against Miriam. Sniffing Koz. 'Ugh. You smell worse than usual.'

Koz spluttered. Miriam chided him. 'Don't try to speak until we can find a physician to look at that throat, and your legs. I can only imagine what happened in the Castle.'

'You're welcome, by the way.' Adara watched Pesach, greeting and comforting the Jews of Prague. Tall in their centre like a holy pillar. 'We did what you asked. It wasn't difficult to spread the word about Matthias in Hominem Mundi once we spoke to Chiara. She'd already done half the work for us. When we brought Westonia's family here to Jewish

Town, that's when Pesach found us. He returned to us. Rising from the river. The cannon was his idea, he dredged up the clay himself.'

Something dawned on Miriam. 'Where's Maisel?' Koz shook his head, at her, at Adara. Looking in the Jewish crowd for the gentle bulk of the Primas. No sign. But two other familiar shapes were approaching, from the south-east gate.

'Is Maisel dead?' Miriam's voice was hollow.

Koz shook his head. Pointing. Hand quivering in fear.

The Samuels. Strolling through the golem crowd. Bloodier than they had been at the Castle. Unlike Pesach, they laid no palms upon their fellow golems. Hands kept to themselves, simple faces blank. No yellow circles.

Miriam stormed towards them. 'You didn't leave him, did you? There'll be no mercy for him up there!'

Pesach emerged from the crowd, Jews falling silent at the sight of the bloodied Samuels. Pesach stopped before Maisel's golem nephews. Painted garnet eyes rolling over them. Reading every drop of blood.

Pesach extended a single open palm towards the Samuels. They stared at it. Overhead, an oystercatcher shrieked.

The Samuels reached out. Pressed their palms against Pesach's open hand. Two hands fitted close against one. Silence rippled out across Jewish Town, a cascading quietude. And then the Samuels were leaping away. Sprinting west through Jewish Town. Down the street Adara and Miriam had approached from. Towards the Vltava. Where the eastern bank faced the high shape of the Castle.

The crowd murmured. Then from above, there was the rustling of thatched roofs. Jewish children that had scrambled on top of buildings were now scrambling back down. Terrified. Concerned parents broke from the crowd, helping the children down. Pesach looked south-east.

Marching. Heavy boots. Old Town. Crowds separated, worried humans heading inwards, behind the Synagogue. Inside it. As one, Golems headed towards the gates. Pesach striding amongst them.

Miriam looked weary. 'They're here.'

Adara made a brusque noise. Not exactly a laugh. 'Let them try to get in! We have every golem in Prague!'

Koz shook his head, worried. Pointing at the gargantuan clay cannon jutting from the rear of the piebald nadler cart.

Adara wrinkled her nose at Koz. 'We don't need *that*. Do you really think golems will fight humans like humans do?'

Miriam patted Koz on the shoulder. 'This is what we're hoping Pesach has chosen to teach the other golems. Not just to actively avoid hurting Jews, but to actively *protect*. To protect all of us. All of Prague.'

Koz swallowed.

Hoofbeats, closer now. Koz looked around at the rooftops. Likho scrambled to and fro. Two perched atop the Old New Synagogue. The highest vantage point in Jewish Town.

Koz pointed to himself, and to the synagogue. Emphatic. Miriam nodded. Leaving Adara with the nadler-cart, Miriam helped Koz lurch towards the Old New Synagogue. Called up towards the likho above. They stared out towards the south-east gate, oblivious. Koz squeezed Miriam's hand. No cane to rap upon the bricks. No Pesach to communicate with them.

Miriam lifted Koz's right hand to her eyes. Gaping at his two fingers of clay, pupils swollen. 'When did these come to life?'

Koz pointed lamely towards the river.

'Click them. *Click them*, if you can.'

Koz lifted a tentative hand. Thumb awkward against his clay fingers. Flicking them, trying to strike his palm.

No sound. But atop the Old New Synagogue, two clay faces whipped towards them, staring down.

Miriam gestured the likho closer. They clambered over the brick pediment, down the face of the synagogue. One shaped to be grotesque and muscular, the other like a chortling human child. Miriam whispered secret syllables. Moving as one, the two likho seized Kozilek by the shoulders. Hauling him up the side of the synagogue. Koz mouthed feeble thanks down at Miriam as the likho carried him to the top. Held him in place at the apex of the Old New Synagogue. Swollen legs hanging limp over the side.

The border separating Jewish Town and Old Town was haphazard. Arbitrary. Two of Jewish Town's six gates were just thick doors blocking stone alleys. The south-east gate was the largest, the easiest to reach. From here, Koz could see that the golems had left it open.

Pesach, still weaving his way to the front, remained the tallest golem. Taller even than the nadler-carts, rearing and bustling in place. The inexorable golem tide flowed towards the gate, lit by the stomping lantern-bearers. Breaking into tributaries, weaving through alleys and courtyards. Intractable figures shoring up the open south-east gate. Clay bodies walling it closed. Beyond them, across the Old Town street, Koz saw a military cloud teeming with torches. Heard the choreographed tromp of heavy boots echoing against the Church of God's Mercy.

The mercenaries of Passau had come.

Wall of golems, standing fast. Facing down the enemy. Pesach not yet at the front, bottlenecked in Jewish Town's maze. The uniformed cloud coalesced into a fusilier stormfront. Arquebuses glinting like sheet lightning.

A shouted signal. The storm struck.

Gunpowder flashed. Air crackled with fire. Shots found their mark, staggering some smaller golems. Denting them as Pesach had been dented. But the golem wall held. First volley of rifles expended, those fusiliers dropped back to reload. Second round stepping forward. Opening fire. Another explosion of gunpowder, raining metal. The golem wall swayed. One missive golem tumbled down, head bent back. But the golem wall held.

Pesach waded ever closer. Almost there. But with a surge of movement, the golem frontline pressed forward. Clearing the short distance between the south-east gate and the mercenaries with calamitous steps and rolling wheels. Old Town air filled with panicked human cries.

From his vantage point, Koz could see what was happening, but not what was being done. Mercenaries fell out of sight, dragged down, screaming. Unstoppable golem bodies lapped at Leopold's forces like an insistent tide. Pulling fragile shapes apart like sandcastles. Mercenaries swung swords and torches, useless. Falling back.

Pesach strode faster through his kin, hands alighting on any close to him. Each golem that Pesach touched eagerly touching another golem ahead. Tactile communication rolling downstream. Cresting against the golem frontline.

Stilling it.

As one, the golems fell back across the dark street. Across the bloodshed. Taking their place at the gate.

Pesach reached the front. A tall jewel in a clay crown. Staring down what mercenaries remained.

But reinforcements were already arriving. Amidst another stormcloud of torch-bearing fusiliers, a familiar figure with close-cropped hair sat astride a marbled Knabstrupper steed. Ornamental breastplate lucent in the light of war.

Leopold. Here to deal with Jewish Town himself.

The Archduke yelled an order. Raised a gauntleted hand. His mercenaries lit more torches. Much more. They edged towards the border of Jewish Town, cunning faces illuminated. Koz could swear that Leopold's plump Habsburg lips were roiling in a self-satisfied smile.

Leopold lowered his hand. The mercenaries let fly.

Pesach jumped, intercepting two lit torches. Slapping them both out of the air. But many more found their mark. Landing atop the thatched roofs of Jewish Town.

Flames spread quickly. The cry of fire, immediate. Koz watched, an impotent spectator, as quick-thinking Jews ran to grab buckets. Sprinting to the river, the well. Chiara corralled the crowd, entreating Old Town refugees to help Jews ferry water to the front. Miriam whispered to a nearby missive golem, which touched another. Soon several slender shapes were weaving back out of the golem wall. Sprinting to fetch water. One missive golem reached up and touched the likho, which touched others. Likho scattered across the rooftops of Jewish Town. Even the two holding Koz atop his post. Koz clung tight to the brick pediment, watching likho work amongst the flames. Scurrying through smoke. Extinguishing fire with open palms. Tearing away burning thatch, hurling it into Old Town streets.

Pesach and his golem wall remained still. Chaos raging behind. Heavy golems facing Old Town, their backs to the spreading blaze threatening to consume Jewish Town.

Leopold approached Pesach. Cantering his horse over the mercenary corpses glutting the street. The Archduke screamed something, imperious sword pointed at the golem.

Inaudible to Koz through the surrounding conflagration. Koz couldn't even see Pesach's face.

Pesach raised a hand. Leopold stopped yelling.

Slow and purposeful, almost theatrical, Pesach kneeled before the Archduke.

Even atop the Old New Synagogue, Koz fancied he could see the shock in Leopold's bloodshot eyes. Deference? Supplication? Surrender?

Pesach kneeled before his foe. Hands flat against the cobbled street.

Prague seemed to hold its breath.

When it happened, it took a long moment. For the eye to see, the ear to hear. The mind to believe.

It took a moment for Koz to realise that the Vltava was flowing inland. Breaking its banks. The river itself rising in defence of Jewish Town.

It came fast, murky river water black in the night. Barely audible at first. Gushing down streets from the eastern bank. Raging along Jewish Town's border. Hitting the south-east gate. The golems didn't budge. Hunkering down. Pressing together. The riverbank their flesh, the water their blood. They could weather the deluge.

Leopold's mercenaries were only flesh and bone.

Some managed to flee the water barrelling towards them. Many tripped, tumbling. Cast down beneath the invading Vltava. The river sent uniformed shapes end over end, submersing them. Leopold and his horse panicked. Two beasts screaming as one. Galloping away, back into Old Town. Trampling his own mercenaries. Tide rising behind them. Washing the invasion away.

The Vltava pulsed, bulging in the moonlight. Guiding its own waves. Water flowed into Jewish Town, but less, far less. Strangled by serpentine urban capillaries. Adara and Miriam dragged themselves atop the wobbling piebald nadler-cart, out of the flood. Sitting awkwardly astride the clay cannon. Water sloshed across Jewish Town's open spaces, bowling people over. Chiara rallied those that could stand. They began dragging buckets through the water. Westonia and Leo, shoulder to shoulder with the Jews, hauled overflowing buckets up to thatched eaves. Putting precious water in tiny firefighting likho hands.

Jewish Town became an orchestrated chorus. Shouting orders, babbling water. The hiss of quenched flame. Smoke clogged the air. Koz strained to see through it. Terrified to lift a hand to wipe his streaming eyes. People began cheering, in shock, in triumph. A miracle. The waters had begun receding. The fires were under control. Leopold and his mercenaries were gone.

But the river continued to swell and turn. As Koz watched, an undulating tide broke the western bank. Sloshing into Lesser Town. Pressing deeper and deeper into Prague. Torches in Lesser Town winked out, one by one. Devoured stars in a distant sky.

Pesach's prayer, Prague's prayer, had been answered.

Chapter 28

Maisel once told Koz that inside the Old New Synagogue bloodstains marr the walls from a pogrom that occurred over two centuries ago. Never truly washed clean. Old memories standing strong against the new.

Koz sat in the docile piebald nadler-cart, parked outside the kloyz. Slumped beside the cannon. Dawn sky awash with a fresh day of red. Jewish Town reeked of ashes, sodden thatch, Vltava mud. People still bustled, looking for help. Looking to provide it. Many more sat on wet stoops, leaned against walls. Exhausted, dejected. Not every house had been saved. The kloyz was being used for triage, people wounded by fire, water, both. Laying on the floor of the Talmudic schoolroom. Tended to by bleary physicians.

Golems dotted the streets. Pesach led most of them outside Jewish Town, but some stayed. Some were helping, in their way. Some stood around, that animate aimlessness. Surveying the world with drifting garnet eyes.

Chiara came up to Koz's nadler-cart. Split sleeves still rolled up.

'Vorel is nowhere to be found. Old Town suffered a lot of damage, by looting, by water. But very few people died. And the mercenaries never even made it to New Town.'

Koz nodded. Rubbed his swollen throat.

'Ah, but Lesser Town fared less favourably. Many buildings burned down. Many dead. Those dogs from Passau were quite... enthusiastic. Thankfully, Lesser Town being occupied meant that when the Vltava rose, most of the people swept onto their backsides were the mercenaries themselves.' A clipped sigh. 'Chittusi finally came out of hiding. His bambitky were with him. He led what Lesser Town guards remained to a quick victory. What's left of Hradčany should be under his control soon. As for the Castle, nobody

knows... I asked a missive golem if it would be kind enough to run up the hill for us. It didn't seem interested in listening to me.' She shrugged.

Leaning against the cemetery gate nearby, Koz saw Westonia's family. Huddled. Children clinging to exhausted parents, three of the six crying. Chiara clicked her tongue.

'Pesach has done much for Prague. But people are going to ask about what he didn't do. Adara and Miriam say he broke you out of Daliborka, and helped Old Town guards reclaim Stone Bridge, if only for a moment. But he did no fighting in Lesser Town. Hradčany. He and the golems enjoyed victory here, but only here. Pesach's miracle put out a lot of fires. But a lot of people drowned, Koz.'

Koz didn't try to speak.

Adara and Miriam limped over, into the silence. Bringing a silence of their own. Miriam gave a respectful nod to Chiara. Adara, looking away. Youthful face drawn. Clutching something metallic under one arm.

Miriam flicked chestnut hair away from her dark eyes. 'Your people did a lot for the Jews of Prague last night.'

Chiara smiled, deferential. 'Ah. They would have done the same.'

'They would.' Miriam looked as though the events of last night had taken a sleepless decade. 'Had they been allowed to.'

'They will, now. Neighbour to neighbour.' Chiara perched her chin atop her calloused fingers. 'Will you be staying here? Does Matthias still expect you at his side? If the Castle becomes his?'

Miriam turned to Adara, giving her a squeeze. The young woman remained sullen. Eyes stuck on the dark shape tucked in the crook of her arm. Miriam gave Chiara a maternal sigh.

'It depends what happens at the Castle. Matthias must know by now that we weren't strictly on his side. And a Holy Roman Emperor owes nothing to no one.'

'Ah!' Chiara flung them both a smile. 'Just continue to make yourselves invaluable. It shouldn't be difficult.'

'Well no matter what, we can't go back to Poland yet. There's still no sign of Maisel. Or the Samuels.'

‘Good.’ Adara lifted what she had been cradling. Crumpled metal, streaked with dried blood. A mercenary helmet. She cast it to the ground with a clattering noise that rang hideous in the hushed morning light. ‘I’m glad the Primas didn’t have to see this. I’m glad he didn’t have to see what the golems were willing to do.’

Maisel, back in the Castle. Screaming in anguish as his Samuels tore helpless assailants asunder.

Miriam drew Adara closer. ‘The golems stopped what they could, in the way they could. They had only us to learn from.’

‘The golems shouldn’t have killed *anyone*.’

Miriam embraced her. ‘I know. I know...’

Koz looked down at the crushed helmet. Mashed beneath a single handprint. Metal yielded beneath it like water yields to a stone. Golems didn’t always know the extent of their actions in the human world.

But what impact had humans had in the golem world? Even after hours in Daliborka, subjected to the patient words of Barvitius, Koz felt unsure. Adrift. Lost in the space between two worlds.

‘So what now?’ Westonia strolled towards them. Behind her, Leo had slumped against the cemetery gate, children piled atop him. Falling asleep.

Chiara crossed her arms. ‘Can you be more specific?’

‘Golems defended Jewish Town first. It’s clear what side they’re on. Does this mean that golems now count as Jews?’ Westonia pointed her chin. ‘Are we to consider them citizens of Prague?’

Miriam faked a smile. ‘Are you familiar with the concept of “goles”?’

Westonia turned up her nose. ‘No. I’m not.’

‘It expresses the feelings of a people uprooted from their own home. Spread out, in alien lands. Dispersed. Ruled over by others. It was the Maharal’s belief that any dispersal of this sort is fundamentally unnatural. That unity will always be sought.’

‘Unity? Is that what golems want?’

‘We’ll have to ask them. Of course, we don’t share a complete language, or similar experiences. We don’t even share similar minds.’

‘So how are we meant to understand them?’

‘How do we understand each other? By listening. By trusting. There will always be liars. But in communication, we may find a shared truth. Whatever that looks like.’

Sunlight peeked over the top of the Old New Synagogue. Koz shielded his eyes. They didn’t need him here.

Patting its mane, Koz urged the nadler-cart forward. Leaving them to their spirited discussion. Trotting around the flattened mercenary helmet. That tiny, violent headstone.

Koz rode the nadler-cart through the maze of streets. Out the south-east gate. Beneath the feet and wheels of the golem mob, the Old Town street was still wet. Discarded rifles scattered in the gutter. Cobblestones mired with blood and silt. One mercenary corpse lay twisted around the base of a lanternpost like a rag. Pale face occluded by twisted limbs.

Pesach moved amongst the other golems. They were all moving, now. Leaving Jewish Town’s border. Marching deeper into Old Town. Pesach, head and shoulders above his people, lead them forward.

The piebald nadler-cart fell into line behind them. Jewish children left the south-east gate, excited sprites fleeing anxious parents. Laughing. Following the golem parade.

The nadler-cart juddered, wheel sliding sideways on a slick cobblestone. Koz’s aching legs jarred against the clay cannon. Yelping, a strangled sound. Jewish children rushed to him, clambering aboard the nadler-cart. Holding him up.

‘Mister! Are you okay?’

Koz gave them a smile. A real one. They stayed on the nadler-cart, crawling all over it. Impressed by the clay ordinance. The piebald creature picked up speed. Passing flooded houses, smashed windows. Following its people west.

Stone Bridge came into view. Packed with soldiers, all the way to the Old Town Bridge Tower. Old Town guards, Castle guards. Clutching useless weapons as the golem procession advanced on them. At the front of the assembled human army, Matthias. Astride Leopold’s marbled Knabstrupper steed. Proud. At attention to his right, the ridiculous Matthiasian golem. Clutching the arm of Archduke Leopold. Nose broken, eyes blackened. Head hung low.

Pesach and his golems reached Stone Bridge. Marching through the arch of the Old Town Bridge Tower. Matthias spotted Kozilek at the back, the clay cannon. Raised a warning hand. Koz gave him a friendly salute. The children joined in, laughing.

Pesach strolled up to Matthias. Stood before him and his horse. The horse, troubled by Pesach's proximity, capered in place.

Matthias jostled in the saddle, reddening. He adjusted, sitting tall. Declarative. 'The traitorous Archduke Leopold has been vanquished! My brother Rudolf has finally abdicated the throne. He will live out his days alone, as he always wished. Prague is safe. I am now your Holy Roman Emperor!'

Pesach hadn't moved. Golems behind him settled in place. Statuary still. Matthias and his horse continued to skitter.

'Your... *contributions*... in this skirmish will not go unrewarded. You will be hailed across history as loyal servants of the Empire. You, and the people of the Jewish faith that you all protected, will be safe under my rule.'

Koz ground his teeth. Matthias was offering the golems a footnote in history. An honourable mention.

Pesach raised one monumental hand.

A cool wind chose that moment to rake at the bridge, rippling and slashing at the water. Matthias' forces clamoured, now hydrophobic. The breeze died down. Castle guards shared nervous glances.

Pesach paused. Patient? Performative?

Proud?

The golem clicked his fingers.

The mass of other golems around him began to shudder. Heads swaying. Mouths opening, stretching wide. Only Pesach stayed still. Even the Matthiasian golem gripping Leopold began to twist in place, elegant mouth parting. Something protruding from the back of its throat. Elongating out.

The children on Koz's nadler-cart climbed along the cannon. Peering at the golems all around them. Watching as clay tongues emerged from every gaping golem mouth.

The sun was warm, the nadler-cart comfortable. Koz's body was screaming, but he didn't listen. He didn't have anything to say today. Tomorrow, he would confess the sins of his life. Face whatever judgement may come. But not today. Today wasn't about him.

Koz leaned back, smiling. Fingers intertwined behind his head.

Pesach opened his mouth to speak. Not to mirror. Not to mimic.

The words the golem spoke were his own.

END

Revisiting the Icon of the Robot in Science Fiction

1. Introduction

Intelligent and capable, inspiring fortune and fear alike, the robot is one of the most well-worn tropes in science fiction (or ‘SF’). More photogenic than a computer, ‘de facto constructed in the image of their creators or of other living creatures’, robots are anthropomorphised machines that are ‘more effective, cheaper, less troublesome, and infinitely more obedient’ than the humans they replace.¹ Tracing the history of artificial servants, interdisciplinary theorist Kevin LaGrandeur locates their first appearance in Homer’s *Iliad* in the ‘intelligent serving tripods’ and ‘metallic serving maidens’ of Hephaistos. As John Cohen explains in *Human Robots in Myth and Science* (1966), depictions of automata in literature became ‘increasingly prominent from the sixteenth century onwards’. But according to SF scholar Brian Attebery, these were simple devices, ‘capable of imitating action but not thought’; it was only when writers began experimenting with these depictions that ‘a rich variety of meanings’ emerged, ‘ranging from erotic obsession to the eventual obsolescence of humanity’. SF author Isaac Asimov, who coined the term ‘robotics’ in 1942 and who revolutionised robot fiction in the Golden Age of SF, describes a robot as ‘a computerized machine that is capable of performing tasks of a kind that are too complex for any living mind other than that of a [human], and of a kind that no non-computerized machine is capable of performing’.²

Robots have a rich history. According to Attebery, ‘[SF] images become iconic through repetition’, and it is this repetition that enriches the robot, allowing it to be used as a generic shorthand for larger concepts within a text. But in real-world science, robots have come a long way since the mid-twentieth century, and artificial intelligence (or ‘AI’) has

¹ Per Schelde, *Androids, Humanoids, and Other Folklore Monsters* (New York: New York University Press, 1993), 150.

² Kevin LaGrandeur, *Androids and Intelligent Networks in Early Modern Literature and Culture: Artificial Slaves*, Routledge Studies in Renaissance Literature and Culture (New York: Routledge, 2013), 9; John Cohen, *Human Robots in Myth and Science* (London: Allen & Unwin, 1966), 54; Brian Attebery, “Science Fictional Parabolae: Jazz, Geometry, and Generation Starships,” in *Parabolae of Science Fiction*, ed. Brian Attebery and Veronica Hollinger (Middletown: Wesleyan University Press, 2013), 9; Isaac Asimov, “Introduction: The Robot Chronicles,” in *Robot Visions* (Prince Frederick: Recorded Books, 2015).

become the dominant cultural paradigm; as AI researcher Margaret A. Boden says, ‘it’s everywhere’.³ But has the iconic SF imagery of robots and AI followed suit? Can iconic robots like Commander Data from *Star Trek: The Next Generation* (1987-1994) or iconic AIs like Skynet from *Terminator* (1984) — both of which have enjoyed contemporary reincarnations — reflect contemporary issues around the implementation of intelligent technology?⁴ Conversely, can contemporary robots like Ava in Alex Garland’s film *Ex Machina* (2014) or AIs like Webmind in Robert J. Sawyer’s WWW Trilogy (2009 – 2001) escape the shadow of their forebears?⁵

This thesis reflects upon depictions of robots and AI in SF, seeking sites of interpretation that provide commentary on the role of contemporary intelligent technology on human livelihood and identity, both in the real world and as depicted in fiction. As SF scholar Despina Kakoudaki observes, robots and their ilk are ‘[i]mmediately recognizable, culturally ubiquitous, emotionally evocative, and politically resonant ... [y]et their very familiarity obscures their participation in culture’.⁶ The iconographic power of the robot can occlude contemporary issues and perspectives behind familiar imagery and concepts, recapitulating dehumanising perspectives within old fears. Empowered by Ann Leckie’s *Ancillary Justice* (2013) — a recent work of space opera that subverts this trend — I have written my own work of SF, *Paper Minds*, in response to my research on this topic.⁷ Recontextualising familiar robot iconography through the Jewish folktale of the golem, *Paper Minds* champions inclusivity and embodiment, and draws attention to the ways in which modern technology threatens the lives and livelihood of people today.

When discussing the potential consequences of technology, well-established tropes provide a useful conceptual shorthand. For example, James Cameron’s *Terminator* films are

³ Attebery, “Science Fictional Parables: Jazz, Geometry, and Generation Starships,” 9; Margaret A Boden, *AI: Its Nature and Future* (Great Britain: Oxford University Press, 2016), 1.

⁴ Gene Roddenberry, *Star Trek: The Next Generation* (United States of America: CBS Television Distribution & Netflix, 1987), Netflix; James Cameron, *The Terminator* (United States: Orion Pictures, 1984), Netflix. Data has recently appeared in *Star Trek: Picard* (2020 - present), and Skynet has appeared most recently in *Terminator: Dark Fate* (2019). Akiva Goldsman et al., *Star Trek: Picard* (CBS All Access: Secret Hideout, Weed Road Pictures, Escapist Fare, Roddenberry Entertainment, CBS Studios, 2020), Amazon Prime Video; Tim Miller, *Terminator: Dark Fate* (20th Century Fox, 2019), Netflix.

⁵ Alex Garland, *Ex Machina* (United Kingdom: A24 & Universal Pictures, 2015), DVD; Robert J Sawyer, *Wake* (London: Gollancz, 2009); *Watch* (London: Gollancz, 2010); *Wonder* (London: Gollancz, 2011).

⁶ Despina Kakoudaki, *Anatomy of a Robot: Literature, Cinema, and the Cultural Work of Artificial People* (New Brunswick: Rutgers University Press, 2014), 3. (Hereafter referred to as *Anatomy of a Robot*.)

⁷ Ann Leckie, *Ancillary Justice* (London: Little, Brown Book Group, 2013); Ryan J Morrison, “Paper Minds,” (Adelaide: Flinders University, 2021).

prime examples of how much impact SF has on the public imagination; in this case, ‘the public imagination of the coming apocalypse’.⁸ Both *The Terminator* (1984) and *Terminator 2: Judgement Day* (1991) follow the Connor family as they fend off assassination attempts from cyborgs from the future, as an AI called Skynet, originally designed for military defence, has attained self-awareness and declared war on humanity.⁹ This existential conflict between the human race and the intelligent machines it can no longer control is a trope that undergirds the entire *Terminator* franchise.¹⁰ According to multiple SF scholars, this fear of a machine uprising has substantial precedent in literature — including Samuel Butler’s novel *Erewhon; or, Over the Range* (1872), which according to Julius Kagarlitski demonstrates ‘the danger hidden in material progress’ and extrapolates Darwinism into an existential fear of any technology complex enough to evolve over time, and Karel Čapek’s *R.U.R.* (1920), a science-fiction play about humanity’s usurpation at the hands of their newly-created artificial servants, which as Brian W. Aldiss and David Wingrove explain it is based on a concern that ‘increasing automation and regimentation will dehumanise mankind’.¹¹ Asimov, who first penned his stories about programmatically pacifistic robots as a reaction to negative stereotypes of robots, coined the term ‘the Frankenstein Complex’ to describe this fear of technological progress, referencing Mary Shelley’s *Frankenstein; or the Modern Prometheus* (1818).¹² Indeed, according to LaGrandeur’s history of intelligent networks, the first ruminations upon the ‘promise and peril of artificial, intelligent servants’ can be attributed to Aristotle.¹³

⁸ Mark Bould and Sherryl Vint, *The Routledge Concise History of Science Fiction* (New York: Routledge, 2011), 152.

⁹ Cameron, *The Terminator; Terminator 2: Judgment Day* (United States: TriStar Pictures, 1991), Netflix.

¹⁰ Notably, the cultural impact of the *Terminator* franchise persists despite its repeated failure to sustain a consistent franchise with new releases. Stephen Joyce, *Transmedia Storytelling and the Apocalypse* (Cham: Palgrave Macmillan, 2018), 165.

¹¹ Samuel Butler, *Erewhon* (London: J M Dent & Sons, 1962); Julius Kagarlitski, “Realism and Fantasy,” in *SF: The Other Side of Realism*, ed. Thomas D Claeson (Bowling Green: Bowling Green University Popular Press, 1971), 32; Karel Čapek, “R.U.R.,” in *R.U.R. And the Insect Play* (London: Oxford University Press, 1961); Brian W Aldiss and David Wingrove, *Trillion Year Spree: The History of Science Fiction*, First American Edition ed. (New York City: Atheneum, 1986), 178. The word ‘robot’ originates from Čapek’s play, derived from the Czech word ‘*robota*’, meaning drudge or slave. Adam Roberts, *The History of Science Fiction*, Palgrave Histories of Literature (London: Palgrave Macmillan, 2006), 168.

¹² Kakoudaki, *Anatomy of a Robot*, 126; Asimov, “Introduction: The Robot Chronicles.”; Mary Shelley, *Frankenstein, or the Modern Prometheus* (Ashland: Blackstone Audio, Inc., 2008)

¹³ LaGrandeur, *Androids and Intelligent Networks in Early Modern Literature and Culture*, 9.

But despite its cultural impact, *Terminator* makes a poor allegory when considering the potential impact of intelligent machines. According to philosopher Nick Bostrom, whose highly influential book *Superintelligence: Paths, Dangers, Strategies* (2014) details a variety of ways in which human-level AI might be responsible for the end of humanity, discussions about the ways in which superintelligence poses a legitimate existential threat are frequently undercut by the ‘inane’ references to *Terminator* frequently levelled at researchers in the field, undercutting real discussions about technology and its impact. And *Terminator* is not the only dangerous machine intelligence referenced in science journalism. For example, a June 2019 editorial from *The Guardian* in the UK paired ethical concerns about the use of machine-learning algorithms to sort visa applications with the famous red light of H.A.L., the murderous AI from Stanley Kubrick and Arthur C Clarke’s *2001: A Space Odyssey* (1968).¹⁴ SF is certainly a powerful tool for contextualising real-world technology; according to SF scholar Istvan Csicsery-Ronay Jr, art acts as one of the primary ‘mediating agencies’ that governs societal emendation ‘from customary routines to new regimes of behavior’. But for theorists like Bostrom, the spectre of the *Terminator* remains ‘jeering over practically every journalistic attempt to engage with the subject [of superintelligence]’.¹⁵ Familiar tropes remain dominant, regardless of relevance, and familiar iconography, as powerful as it is, can muddy considerations of the unknown with a shallow reiteration of the known.

Fear of a machine uprising is well trodden ground. But as SF scholar Gary K Wolfe explains, the robot — ‘a shadowland somewhere between that which is clearly human and that which is clearly mechanical’ — has the power to represent how the machinic and the anthropomorphic overlap.¹⁶ The existential fears expressed in *Superintelligence* are distinct from ‘nearer-term concerns’ surrounding machine intelligence, ‘such as lethal autonomous weapons, labor market impacts of automation, cybercrime, privacy, or self-driving cars’.¹⁷

¹⁴ Nick Bostrom, *Superintelligence: Paths, Dangers, Strategies* (Oxford: Oxford University Press, 2016), 323; “The Guardian View on Digital Injustice: When Computers Make Things Worse,” *The Guardian*, 10 June 2019; Stanley Kubrick, “2001: A Space Odyssey,” (United Kingdom & United States: Metro-Goldwyn-Mayer, 1968). (Hereafter referred to as *2001*.)

¹⁵ Istvan Csicsery-Ronay Jr, *The Seven Beauties of Science Fiction* (Middletown: Wesleyan University Press, 2008), 58; Bostrom, *Superintelligence*, 321.

¹⁶ Gary K Wolfe, *The Known and the Unknown: The Iconography of Science Fiction* (Kent: Kent State University Press, 1979), 153. (Hereafter referred to as *The Known and the Unknown*.)

¹⁷ Bostrom, *Superintelligence*, 323. As Bostrom stresses, ‘[t]hese are not unreasonable things for some people to be thinking about, but they mostly concern issues quite distinct from those raised by human-level AI or superintelligence’. Ibid.

For many, these nearer-term concerns present an immediate threat; not from killer robots like the Terminator, but from the human systems through which technology is implemented, which according to Cindy Cohn, Executive Director of the Electronic Frontier Foundation, has in recent years ‘tend[ed] toward the unfair, the disempowering, the dystopian’. Furthermore, as SF scholar Jennifer Rhee points out, the robot inhabits both the machinic and the anthropomorphic, as ‘[a]nthropomorphization, a founding metaphor for AI and robotics, brings with it all the ethical, political, and social stakes that inhabit any process in which humanness is produced’.¹⁸ The figure of the robot allows us to confront how we define humanity, its constructed nature exposing how the human is constructed. But in the recapitulated iconography of the robot, the deep-etched lines we draw between humanity and inhumanity reinforce problematic definitions of both. In both their machinic and anthropomorphic aspects, robots have the power to devalue the human.

1.1 Statement of intent

In this exegesis, I identify the problematic aspects of depictions of robots and AI in SF, which continue to resonate today due to their generic familiarity. I argue that while the robot can symbolise many things, such as the messy borders around how we define the human, the robot also symbolises its own history — a history within which mechanism is categorically valued over organism. This devaluing of the organic, if not interrogated within the text, can echo elements of liberal humanism that reinforce discrimination and dehumanisation.¹⁹ To support this, I conduct a brief close study of a contemporary work of SF that features robot iconography while also interrogating its liberal humanist history: Ann Leckie’s *Ancillary Justice* (2013). Leckie’s novel both evokes and subverts the robot, valuing organic difference and embodiment over machinic replication and prescriptive definitions of

¹⁸ Cindy Cohn, “Foreword,” in *The End of Trust*, ed. Dave Eggers, McSweeney’s Quarterly (San Francisco: McSweeney’s, 2018), 24; Jennifer Rhee, *The Robotic Imaginary: The Human and the Price of Dehumanized Labour* (Minnesota: University of Minnesota Press, 2018), 9. (Hereafter referred to as *The Robotic Imaginary*.)

¹⁹ I adopt here the critique of liberal humanism as presented by SF scholars like Sherryl Vint. Vint does not take issue with all of liberal humanism, only ‘this particular cluster of elements evident in much liberal, humanist, liberal humanist, and posthumanist thought’. Sherryl Vint, *Bodies of Tomorrow: Technology, Subjectivity, Science Fiction* (Buffalo: University of Toronto Press, 2007), 11-12. (Hereafter referred to as *Bodies of Tomorrow*.)

personhood. I also undertake a more comprehensive close study of the preceding manuscript in this thesis, *Paper Minds*, my creative response to this research.

To identify the iconographic power of the robot, this thesis makes use of Gary K Wolfe's codification of iconography in SF. Wolfe identified the robot as one of five SF 'icons'; that is, a concept recognisable not just within SF but also within the cultural context that SF comments on.²⁰ These icons draw iconographic power from their collective portrayal across the SF 'mega-text', which author and SF scholar Damien Broderick describes as an 'interlocking web of fictive worlds' that each SF work both refers and adds to.²¹ Wolfe's icons form a barrier between the known and the unknown within a text, gesturing with subjunctive language towards theoretically possible realities. The icon of the robot — 'a product of a technology grown so complex that its inner workings and motives have become obscure to its own creators' — signifies both the horrors of slavery and the fear of automation, harbouring unknown futures within a known, iconic shape.²²

Paper Minds, my SF manuscript that both evokes and critiques the icon of the robot, is my response to this research. *Paper Minds* combines hardboiled detective fiction with the Jewish folktale of the Maharalian Golem, employing the icon of the robot within a genre-bending reimagining of the android detective story.²³ Set in Prague in the early 17th century, *Paper Minds* is an adaptation of Curt Leviant's English translation of Rabbi Yudl Rosenberg's highly influential 1909 Hebrew manuscript, *The Golem and the Wondrous Deeds of the Maharal of Prague* (2007), a work of pseudepigrapha that has seen multiple appropriations and adaptations.²⁴ Rosenberg's contribution to golem folklore is couched within a hagiographic

²⁰ Wolfe, *The Known and the Unknown*, ix.. The other four icons that Wolfe identifies are the spaceship, the city, the wasteland, and the monster.

²¹ Damien Broderick, *Reading by Starlight: Postmodern Science Fiction* (Abingdon-on-Thames: Routledge, 1995), 48.

²² Wolfe, *The Known and the Unknown*, 17, 153, 21-22.

²³ The term 'Maharalian Golem', coined by the philosopher of Jewish mysticism Moshe Idel, will be used in this thesis to describe the folkloric entity the Golem of Prague, which was created by Rabbi Judah Loew, the Maharal. Moshe Idel, *Golem: Jewish Magical and Mystical Traditions on the Artificial Anthropoid* (Albany: State University of New York Press, 1990), 255. (Hereafter referred to as *Golem*.) As Jewish writer and historian Leo Pavlát explains, Maharal is a Hebrew acronym for the name of Rabbi Judah Loew ben Bezalel: 'Morenu Ha-Rav Rabbi Lewa, i.e. "Our teacher, master, Rabbi Lewa"'. Leo Pavlát, "Maharal's Legacy," in *Path of Life: Rabbi Judah Loew Ben Bezalel Ca. 1525-1609*, ed. Alexandr Putík (Czechia: Academia, 2009), 13. (Hereafter referred to as *Path of Life*.)

²⁴ Yudl Rosenberg, *The Golem and the Wondrous Deeds of the Maharal of Prague*, trans. Curt Leviant (New Haven: Yale University Press, 2007). As explained in chapter 4, 'The golemic mega-text', Leviant's translation of Rosenberg's Hebrew manuscript differs from others in that prior translations are based upon Rosenberg's Yiddish manuscript, which was a simpler, more streamlined account. Curt Leviant, "Introduction," in *The*

account of the life of the Maharal, Rabbi Judah Loew, who creates the golem Yossele to protect the Jews of Prague against anti-Semitism — specifically the blood libel, wherein Jews are framed for the exsanguination of Christian children for ritual purposes. *Paper Minds* posits an alternate history following the events of Rosenberg's tale. In this story, the secret to creating golems has been stolen from the Jews and industrialised by the Rudolfine Court, leading to labour instability, state surveillance, and civil unrest. Like *Ancillary Justice*, *Paper Minds* makes use of familiar tropes to draw attention to the unfamiliar, questioning outdated assumptions about the primacy of mechanism in our fundamentally organic world.

The folktale of the golem, and the consequences of its creation, has a long history of being used allegorically in fiction and non-fiction to discuss the consequences of technology. The golem is both an historical antecedent of the robot and a metaphor for it, which according to historian Hillel J. Kieval evokes 'cybernetics and artificial intelligence while retaining strong elements of doom that hark back to *Faust* and *Frankenstein*'.²⁵ Their similarities have invited comparison from theorists ranging from the originator of cybernetics, mathematician and philosopher Norbert Wiener, to Jewish scholar and author Rabbi Byron Sherwin, and has inspired such SF works as Marge Piercy's *He, She and It* (1991) and David Brin's *Kiln People* (2002).²⁶ It is in this tradition that my manuscript is written. Leveraging what literary historian Elizabeth Baer describes as the 'inherent metafictional commentary' of the golem, my novel is inspired by a wide range of sources, both inside and out of the rich history of golem depictions (what I refer to as the golemic mega-text).²⁷ *Paper*

Golem and the Wondrous Deeds of the Maharal of Prague (New Haven: Yale University Press, 2007), xxi. An outline of the impact of Rosenberg's work, including the innovative elements introduced and the subsequent works which are based upon it, is also provided in chapter 4.

²⁵ Hillel J Kieval, *Languages of Community: The Jewish Experience in the Czech Lands* (Berkeley: University of California Press, 2000), 97.). In fiction, works like Marge Piercy's *He, She and It* (1991) and David Brin's *Kiln People* (2002) explicitly bring the folklore of the golem into conversation with the technological creation of artificial servants. Marge Piercy, *He, She and It* (New York: Ballantine Books, 1993); David Brin, *Kiln People* (Newark: Audible Studios, 2012).

²⁶ Wiener claimed in his 1964 ethico-political treatise *God & Golem, Inc.: A Comment on Certain Points Where Cybernetics Impinges on Religion* (Hereafter referred to as *God & Golem Inc*) that machines are 'the modern counterpart of the Golem of the Rabbi Prague'. Norbert Wiener, *God & Golem, Inc.: A Comment on Certain Points Where Cybernetics Impinges on Religion* (London: Chapman & Hall, 1964), 95. Sherwin draws comparisons between golems and the ethics of technology in *The Golem Legend: Origins and Implications* (1985). Byron L Sherwin, *The Golem Legend: Origins and Implications* (Lanham: University Press of America, 1985).

²⁷ Elizabeth R Baer, *The Golem Redux: From Prague to Post-Holocaust Fiction* (Detroit: Wayne State University Press, 2012), 12. (Hereafter referred to as *The Golem Redux*.) The golemic mega-text is expanded in further detail in chapter 4, which touches upon the history and folklore of the golem as well as some modern interpretations.

Minds draws not only from Rosenberg's foundational interpretation, but also the folklore that Rosenberg himself drew from while adapting the rich folklore of the Maharalian Golem. Furthermore, as a work of detective fiction in which a human detective and an anthropoidal automaton solve crimes, my novel contributes to the tradition of works of detective fiction in SF, such as Asimov's seminal mystery, *The Caves of Steel* (1954).²⁸ By drawing attention to the exclusionary definitions of personhood inherent to the icon of the robot, as well as the dangers of trusting opaque intelligent systems, *Paper Minds* invites reflection upon how we conceive of intelligent technology in relation to humanity.

1.2 Key terms

First and foremost, this thesis is grounded in the humanities, with research conducted into real-world AI and robotics as required. It should be noted here that the definition of 'AI' is intended in its broadest sense. According to computer scientists Stuart Russell and Peter Norvig, the field of artificial intelligence is concerned with 'attempt[ing] not just to understand but also to *build* intelligent entities', a definition which allows for many fields of enquiry. This includes technologies recognisable today, such as autonomous vehicles, speech recognition, robotics, natural language processing, and machine learning.²⁹ However, the term AI also includes research into the creation of a sapient machine — what philosopher John Searle coined as being 'strong AI', seen in the work towards 'artificial general intelligence' (or AGI) undertaken by AI researchers like Ben Goertzel and Cassio Pennachin — a theoretical outcome in which a computer is programmed to have self-aware mental states, not just simulations of them.³⁰ (The anthropocentric nature of this

²⁸ Asimov's crime-solving duo, the human plainclothes police officer Elijah Baley and his robot sidekick R. Daneel Olivaw, appear together in the *Robot* novels *The Caves of Steel* (1954), *The Naked Sun* (1957), and *The Robots of Dawn* (1983). Isaac Asimov, *The Caves of Steel* (London: HarperCollins, 1997); *The Naked Sun* (Old Saybrook: Tantor Audio, 2013); *The Robots of Dawn* (Old Saybrook: Tantor Audio, 2013).

²⁹ Stuart J Russell and Peter Norvig, *Artificial Intelligence: A Modern Approach*, 3rd ed. (Upper Saddle River: Pearson/Prentice Hal, 2010), 1-5, 28-29. See also David Danks, "Learning," in *The Cambridge Handbook of Artificial Intelligence*, ed. Keith Frankish and William M Ramsey (Cambridge: Cambridge University Press, 2014).

³⁰ John R Searle, "Minds, Brains and Programs," in *Artificial Intelligence: The Case Against*, ed. Rainer Born (Kent: Croom Helm, 1988), 18; Ben Goertzel and Cassio Pennachin, eds., *Artificial General Intelligence*, Cognitive Technologies (Berlin: Springer-Verlag, 2007). It should be noted that Searle coined the term 'strong AI' while rebutting the possibility of its existence, as part of his famous Chinese Room argument.

measurement of intelligence will be addressed in the following chapter.) But as the mainstream invocation of strong AIs like *Terminator* and H.A.L. demonstrate, allegorical links can be drawn between the strong AI of an SF text and the 'weak AI' of the real world.³¹ Thus while this thesis seeks the *specific* (in both SF and real-world contexts), the term 'AI' in this thesis is leveraged in its *general* sense, so that this research might be positioned within the greater discourse. To bridge the gap between the unknown and the known, one must start with the known. However, within any given analysis of a text, the specific terminology employed by the text will be used, within a taxonomic hierarchy that places the general term 'AI' *above* the specific term used by the text. For example, in Philip K Dick's *Do Androids Dream of Electric Sheep?* the term androids (or 'andys') would be used when referring to Dick's automatons.³²

Broad research was taken across a variety of texts for this thesis, across both SF (which is more literary and 'sophisticated') and 'sci-fi' (which favours spectacle, and within which 'rationality is not particularly prized').³³ While many attempts have been made to codify SF and its origins, there remains no formal agreement on what specific texts can be included or excluded from SF, and depictions of robots and AI can be found in both SF and sci-fi, across a variety of media.³⁴ To this end, it should be noted that the abbreviation 'SF' applies to both SF *and* sci-fi in this thesis. Furthermore, while this thesis is grounded in SF literature, minor research has been undertaken across multiple media formats, including film, TV, video games, and comics. The works of SF featured in this thesis have been selected not for their scientific verisimilitude, but rather for their ability to explore the social ramifications of technology. Indeed, as Csicsery-Ronay points out, the line between 'true and imaginary science' in SF is blurry for much of its audience, and in a contemporary world replete with SF narratives, 'the number of ... playful fantasies outnumbers defensible scientific explanations (which never even reach most people)'. A work of SF does not have to

³¹ Searle's term for existing AI technology, which while powerful, lacks understanding and self-awareness. Searle, "Minds, Brains and Programs," 18.

³² Philip K Dick, *Do Androids Dream of Electric Sheep?* (London: Gollancz, 2002; repr., 7th). (Hereafter referred to as *Do Androids Dream*.) Discussing the use of the word android, Wolfe explains that '[t]here is not much consistency among science-fiction writers or critics regarding the use of [the] term'. The definition Wolfe employs is 'the one implied by the word's etymology: "resembling a man"'. Wolfe, *The Known and the Unknown*, 237.

³³ Csicsery-Ronay Jr, *The Seven Beauties of Science Fiction*, 74.

³⁴ Bould and Vint, *The Routledge Concise History of Science Fiction*, 39.

be scientifically plausible to contribute to the icon of the robot — as Wolfe points out, the popularity of SF in all mediums stems from how readers and viewers ‘invest a certain part of their own fate’ into its content, perceiving ‘mythic reflections of themselves’ within an uncertain future.³⁵

My research into depictions of AI in SF focuses primarily on what I call ‘anthropoidal automata’: artificially created entities which are modelled on human physiology and, in part or in whole, human psychology. My use of the term ‘anthropoidal automata’ is an adaptation of Jewish philosopher Moshe Idel’s term ‘artificial anthropoid’, coined in 1990 during his essential study into the historical origins of the golem in Jewish literature. I have substituted ‘artificial’ for ‘automata’ to encompass the designed, programmatic nature of the entities being discussed in this thesis, such as robots and AI.³⁶ As LaGrandeur points out, the golem is similar to the automaton in that it represents ‘an augmentation and projection of its creator’s knowledge’, and thus it provides a fruitful allegory in a discussion about ethics in technology in this thesis. Furthermore, while my research focuses primarily on depictions of androids and robots, my use of the word ‘anthropoid’ is not restricted exclusively to embodied entities, as human qualities can also be found (or projected upon) disembodied automata. As LaGrandeur explains, ‘[t]he imitation of the human can reside in the simulacrum’s human functionalities as well as its form’, which is an extrapolation of Wiener’s concept of ‘operative images’, which mimic the operation of another entity without necessarily ‘bear[ing] a pictorial likeness to it’.³⁷

1.3 Structure of this thesis

In both real-world science and SF, we know the robot by its familiar shape and form — sometimes anthropomorphic, sometimes not. According to Wolfe, as an item of technology, we know the robot as a programmable tool; in SF, where robots have the potential to be not

³⁵ Csicsery-Ronay Jr, *The Seven Beauties of Science Fiction*, 142; Wolfe, *The Known and the Unknown*, 3-4.

³⁶ Idel, *Golem*. For the purposes of analysing *Paper Minds*, the word ‘automata’ here is extended to include golems, but only golems from folklore that have been created to complete tasks. The difference between task-based golems and their forebears in religious texts will be covered in more detail in section 4.2 of chapter 4.

³⁷ LaGrandeur, *Androids and Intelligent Networks in Early Modern Literature and Culture*, 68, 5; Wiener, *God & Golem, Inc.*, 38. LaGrandeur provides the example of H.A.L. from Clarke’s *2001*, which ‘has no human form ... [but] is made as an operative image of the human brain’. LaGrandeur, *Androids and Intelligent Networks in Early Modern Literature and Culture*, 5.

just tools but sapient beings, they are often lower class at best, slaves at worst. What we do *not* know of the robot in this context is the scope of its intellect, or its motivations; nor do we know the extent to which an avatar of precise, mechanised intention can change the world of the human. As LaGrandeur explains, this urge to '[pit] human ingenuity against nature via artificial proxies' is an old one, as is the fear of 'a reversal of the master-slave relationship'. Fiction about robots draws not only from these anxieties, but also from other fiction about robots, creating what Attebery describes as a 'contract between storyteller and knowledgeable audience' precipitating an exploration of 'the new within the familiar'.³⁸ It is my contention that, within the icon of the robot, familiar preoccupations can conceal more recent concerns surrounding our relationship with intelligent technology.

The following chapter, 'The icon of the robot', critiques the mechanistic universe lurking within Wolfe's icon of the robot. This chapter begins with a definition of Wolfe's icons, which embody the barrier between the known and the unknown in an SF text, and remain powerful 'even when isolated from the context of conventional narrative structures'.³⁹ To explain how the iconographic power of these icons circulates between both SF and real-world science, the SF mega-text (as defined by Damien Broderick) is outlined in this chapter.⁴⁰ The work of SF theorist Darko Suvin is also briefly touched upon, as the 'zero world' explained in Suvin's theory of cognitive estrangement — the 'empirically verifiable properties' presupposed by the author — draws attention to the philosophical positions that are taken as given in the icon of the robot.⁴¹ For Wolfe, the icon of the robot is itself a known shape, a familiar figure; through its use, the reader discovers the unknown consequences of the robot's existence. These consequences change alongside popular attitudes to technology. The robot itself has many guises, from the machinic, to the anthropomorphic, to the godlike; a progression which, in the SF analysed by Wolfe, is inevitable.⁴²

³⁸ Wolfe, *The Known and the Unknown*, 19; LaGrandeur, *Androids and Intelligent Networks in Early Modern Literature and Culture*, 1; Attebery, "Science Fictional Parables: Jazz, Geometry, and Generation Starships," 9.

³⁹ Wolfe, *The Known and the Unknown*, 17, 16.

⁴⁰ Broderick, *Reading by Starlight*. The concept of the mega-text was first defined by literary critic Philippe Hamon, which was then elaborated upon by literary critic Christine Brook-Rose. Philippe Hamon, "Un Discourse Constraint," *Poétique* 16, no. Le discours réaliste (1973): 425-26; Christine Brook-Rose, *A Rhetoric of the Unreal: Studies in Narrative and Structure, Especially of the Fantastic* (Cambridge: Cambridge University Press, 1981).

⁴¹ Darko Suvin, *Metamorphoses of Science Fiction: On the Poetics and History of a Literary Genre* (New Haven: Yale University Press, 1980), 11.

⁴² Wolfe, *The Known and the Unknown*, 153-54.

It must be noted for context that Wolfe's icons represent a point in time. While Wolfe conceived of his icons as being independent from any identifiable point of genesis, positioned as nebulous, infectious concepts that are replicated in the zeitgeist 'even in cases in which science-fiction writers might never have read the specific works that they are attempting to supersede', Wolfe's *The Known and the Unknown* was first published over forty years ago.⁴³ The science of real-world robotics has advanced in that time, and so has AI, as research in the field 'is thriving as never before, and promises continuing contributions, both practical to engineering and theoretical to science'.⁴⁴ When Wolfe conceived of the icon of the robot, highly capable machines like Boston Robotics' Handle and DeepMind's AlphaGo remained in the realm of science fiction. Yet AI remains an iconic entity in the cultural imagination, seen in critically-acclaimed contemporary SF works like Jonathan Nolan and Lisa Joy's television series *Westworld* (2016 – present), PlatinumGames' 2017 video game *Nier: Automata*, and Martha Wells' *Murderbot Diaries* series (6 vols., 2017-2021).⁴⁵ As literary theorist Patricia Kerslake points out, 'the extraordinary can be seen only against a backdrop of the mundane', explaining that the power of SF lies not just in the novelty of innovation, but also in the contrast between innovation and 'the known here and now'.⁴⁶

In the second half of chapter 2, 'The icon of the robot', I argue that Wolfe's original icon of the robot is reflective of a mechanistic universe — a universe in which mechanism is superior to organism — informing the zero world in SF about anthropoidal automata. This mechanistic universe can be seen in the conceptual progression of the robot that Wolfe mapped in Golden Age SF, in which the robot progresses from being machinic, to anthropomorphic, to deific.⁴⁷ The role of humanity in this progression is a source of tension

⁴³ Ibid., xii. Wolfe also distances himself from the argument that SF originated from any specific author or text. Ibid., xi. Wolfe has touched again briefly upon his icons in 2011, but this was part of a larger discussion about the permeability of genre boundaries, and the only substantive update was the act of retitling the icon of the robot as 'the intelligent machine'. "The Artifact as Icon in Science Fiction," ed. Gary K Wolfe, *Evaporating Genres: Essays on Fantastic Literature* (Middletown: Wesleyan University Press, 2011). 83.

⁴⁴ Stan Franklin, "History, Motivations and Core Themes," in *The Cambridge Handbook of Artificial Intelligence*, ed. Keith Frankish and William M Ramsey (Cambridge: Cambridge University Press, 2014), 32.

⁴⁵ Jonathan Nolan and Lisa Joy, *Westworld* (United States: Warner Bros. Television Distribution, 2016); *Nier: Automata*, Square Enix, PlayStation 4. Wells' *Murderbot Diaries*, which began with *All Systems Red* in 2017, has as its most recent addition *Fugitive Telemetry* in 2021. Martha Wells, *All Systems Red*, vol. 1, *The Murderbot Diaries* (Landover: Recorded Books, 2017); *Fugitive Telemetry*, vol. 6, *The Murderbot Diaries* (Landover: Recorded Books, 2021).

⁴⁶ Patricia Kerslake, *Science Fiction and Empire*, Liverpool Science Fiction Texts and Studies, 35 (Liverpool: Liverpool University Press, 2007), 2-3.

⁴⁷ Wolfe, *The Known and the Unknown*, 155.

that SF in this era seeks to resolve, striving to maintain human dominion over the machines that it glorifies by arguing that organism is compatible with mechanism. This can be achieved by mechanising the human body and mind, allowing humans to conquer machines on their own grounds; or by enforcing dominion over machines through anthropoidal automata that admire the ineffable qualities of humans and strive to be like their masters. The values of this mechanistic universe echo many of the exclusionary values inherent in liberal humanism, which according to literary theorist and theologian Elaine L. Graham, ‘having displaced the gods, [seeks to achieve] heights of wisdom and self-aggrandizement — the post/human as superhuman’.⁴⁸ One key method of making organism compatible with mechanism is claiming that the mind is separable from the body in the way that software is seen as being separable from hardware, a position popularised by computer scientist and futurist Hans Moravec, who argues it is possible to ‘get [y]our mind out of [y]our brain’. This position is based on the supposition that consciousness is tangible, something that can be transferred between physical states with no interruption to subject-position. This deification of the machinic is linked to the dualistic fantasy that consciousness (either human or machine) can transcend the body, seen in SF author and computer scientist Vernor Vinge’s conception of the Singularity.⁴⁹ This is Cartesian dualism — philosopher René Descartes considered ‘the thinking subject ... ontologically *other* than matter’ — a position which has been thoroughly dismantled by new materialist theory through the work of feminist scholars like Rosi Braidotti, Jane Bennett, Sara Ahmed, Diana Coole, and Samantha Frost.⁵⁰ As literary critic N. Katherine Hayles points out, ‘for information to exist, it must

⁴⁸ Elaine L Graham, *Representations of the Post/Human: Monster, Aliens and Others in Popular Culture* (New Jersey: Rutgers University Press, 2002), 155. (Hereafter referred to as *Representations of the Post/Human*.) Graham coins the term ‘post/human’ as an alternative to ‘posthuman’, inviting ‘a questioning both of the inevitability of a successor species and of there being any consensus surrounding the effects of technologies on the future of humanity’. Ibid., 11.

⁴⁹ Hans Moravec, *Mind Children: The Future of Robot and Human Intelligence* (Cambridge: Harvard University Press, 1988), 109; Vernor Vinge, “The Coming Technological Singularity: How to Survive in the Post-Human Era,” in *Vision 21: Interdisciplinary Science and Engineering in the Era of Cyberspace* (NASA Lewis Research Center: San Diego State University, 1993). These eschatological predictions can be seen in Vinge’s SF, such as his 1992 space opera *A Fire Upon the Deep*, in which superintelligent AIs exhibit godlike power over lesser beings. *A Fire Upon the Deep* (New York City: Macmillan Audio, 2010).

⁵⁰ Diana Coole and Samantha L Frost, “Introducing the New Materialisms,” in *New Materialisms: Ontology, Agency, and Politics*, ed. Diana Coole and Samantha L Frost (Durham: Duke University Press, 2010), 8; René Descartes, *Meditations and Other Metaphysical Writings*, trans. Desmond M Clarke (London: Penguin Books, 2003).

always be instantiated in a medium'.⁵¹ Naming the disembodied position of theorists like Moravec 'first-generation cognitive science', cognitive linguists George Lakoff and Mark Johnson call for a return to embodiment through what they call 'second-generation cognitive science', which recognises that the phenomenon of consciousness is indissociable from the physical origins of the conscious organism.⁵² According to Hayles, when 'information and materiality' are conceived of as 'distinct entities', conceptions of the human become disembodied and thus dehumanised, as 'information is given the dominant position and materiality ... a distant second'.⁵³ I argue that the icon of the robot, which gains its iconographic power from prior SF texts and its links to real-world science, can echo this mechanistic universe unless its presupposed values are questioned. To unpack the icon of the robot in this thesis, I focus on the first of Wolfe's two categories, the machinic and the anthropomorphic, which are qualities that are not limited to a singular depiction in a text.⁵⁴ Within machinic depictions of anthropoidal automata, I analyse how they perform labour and logic; within anthropomorphic depictions of anthropoidal automata, I analyse how they demonstrate embodiment and personhood.

In chapter 3, 'Close study of *Ancillary Justice*', I conduct a close study of Ann Leckie's *Ancillary Justice*, a contemporary work of SF which invokes the icon of the robot but within a non-mechanistic universe. Leckie's novel draws on the icon of the robot through familiar iconography, but through this iconography, argues against the fundamental tenets of a mechanistic universe. While this can be seen in both the machinic and the anthropomorphic aspects of Leckie's use of the icon of the robot, this close study limits itself to the anthropomorphic, looking at how *Ancillary Justice* depicts embodiment and personhood. Breq, the protagonist of *Ancillary Justice*, is an ancillary — a living human body piloted by an AI, an AI which was once distributed across many such bodies. As an ancillary, Breq is an organism modified by mechanism, with the substantial physical and mental power this

⁵¹ N Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: The University of Chicago Press, 1999), 13. (Hereafter referred to as *How We Became Posthuman*.)

⁵² George Lakoff and Mark Johnson, *Philosophy in the Flesh: The Embodied Mind & Its Challenge to Western Thought* (New York: Basic Books, 1999), 78-79. (Hereafter referred to as *Philosophy in the Flesh*.)

⁵³ Hayles, *How We Became Posthuman*, 12.

⁵⁴ As I explain in section 2.4 of chapter 2, an analysis of Wolfe's third category, which covers eschatological depictions of anthropoidal automata, lies beyond the bounds of this thesis.

brings.⁵⁵ Breq's form and function draw upon the familiar icon of the robot, which according to Wolfe, represents a barrier between the known and the unknown.⁵⁶ But the unknown that is revealed in *Ancillary Justice* through Breq is that the replicable nature of mind underpinning the creation of ancillaries is still impacted by embodiment — the AI mind permanently inhabiting her body is not a perfect copy of that AI, but is a unique consciousness cocreated with the body. In *Ancillary Justice*, the known presented by the icon of the robot — the familiar use of sapient AIs as a slave caste — contains the unknown, which is the impact of systemic individuality within the homogeneity of empire. This valorisation of individuality is strengthened by the neurodivergence of Breq, a unique individual who is not demonised for her differences, and who does not strive to be considered human.

The next two chapters are dedicated to an analysis of my creative response to my research, *Paper Minds*. *Paper Minds* expands the existing allegorical relationship between golems and robots, adapting the technique of golem creation into familiar technologies from both SF (like androids) and the real-world (like self-driving cars). By separating these familiar forms from their digital origins, *Paper Minds* estranges the icon of the robot, inviting a critique of values freed from its mechanistic aspects. But my adaptation of the golem is based upon Rosenberg's *The Golem and the Wondrous Deeds of the Maharal of Prague*, which itself is a substantial adaptation of the Maharalian Golem, a folkloric figure representing centuries of golem depictions and discussions — the golemic mega-text. In chapter 4, 'The golemic mega-text', I outline this space of shared depictions, situating my work within this deep cultural history I have drawn from and contextualising my use of the golem in the invocation of the icon of the robot. Specifically, chapter 4 focuses on the elements of the golemic mega-text that inspired the machinic and anthropomorphic aspects of Rosenberg's Maharalian Golem, looking at golem personhood and embodiment in the anthropomorphic

⁵⁵ Leckie, *Ancillary Justice*. Other female anthropoidal automata who demonstrate high levels of physical strength and resilience include Major Motoko Kusanagi in Mamoru Oshii's anime film *Ghost in the Shell* (1995), Ava in Alex Garland's film *Ex Machina* (2015), and Kimiko Ross in Aaron Diaz's webcomics 'Hob' (published in 2013 as *The Tomorrow Girl*) and 'Dark Science' (2010-2021). Mamoru Oshii, *Ghost in the Shell* (Japan: Madman Entertainment, 1995), DVD; Garland, *Ex Machina*; Arryn Diaz, *The Tomorrow Girl* (Easthampton: Make That Thing, 2013); "Dresden Codak: Dark Science," <http://dresdencodak.com/>.

⁵⁶ Wolfe, *The Known and the Unknown*, 31.

aspects of the earliest golems, and golem labour and logic in the task-based golem that originated in the seventeenth century.

What follows is chapter 5, 'Close study of *Paper Minds*'. In this chapter, I explore how my manuscript adapts the machinic and anthropomorphic qualities of the Maharalian Golem as mirrors for contemporary issues — machinic issues around logic and labour, as well as anthropomorphic issues around othered people and othered bodies. Along the machinic axis, mass-produced golem labour draws an allegorical link between this new Prague and our own technology-driven world; and golem logic reflects the dangers of placing trust in the decision-making of opaque intelligent systems. Along the anthropomorphic axis, golem embodiment demonstrates the indissociable nature of the physical in the creation of the self; and an exploration of golem personhood draws attention to contemporary issues around dehumanisation, as depictions of the anthropomorphic nonhuman reflect how variable our definitions of the human can be.

1.4 My research

As a researcher, I am based in the humanities, and thus have made little foray into the specific fields that make AI technology possible, such as mathematics, computer engineering, and neuroscience. While my research began in SF, drawing broad perspective from the work of scholars like Istvan Csicsery-Ronay Jr, Damien Broderick, Brian Attbery, and Patricia Kerslake, I continued onwards to other scholars for the impact of intelligent technology. For philosophical and ethical commentary on the topic of AI, and how this influences what we consider 'human', I have drawn on the work of N. Katherine Hayles, Jennifer Rhee, Sherryl Vint, Donna Haraway, Elaine L. Graham, and Despina Kakoudaki. I have also conducted research into a variety of related fields, from the crucial work of cognitive linguists George Lakoff and Mark Johnson and neuroscientist Antonio Damasio in the field of embodiment, to the contributions of scholars in disability studies like Tom Shakespeare, and David T. Mitchell and Sharon L. Snyder. For identifying the specific material consequences of the depiction and implementation of intelligent technology, this thesis draws from sources such as cultural anthropologist Madeleine Elish, ethicist Alex

Leveringhaus, and the work of statistician Kristian Lum and political scientist William Isaac, to name just a few.

Additionally, this thesis follows in the footsteps of existing Western scholarship on the topic on Anglophone SF, with all the cultural limitations that brings. The reasons for this truncated approach to SF are twofold. Firstly, as noted by Csicsery-Ronay Jr, 'SF is undeniably a predominantly Anglo-American genre ... its current influence [reflecting] the cultural power of U.S. hypermodernism and [its] technoscientific ideology'.⁵⁷ Secondly, like the constraints established in Bould and Vint's *The Routledge Concise History of Science Fiction*, this restriction of cultural scope mirrors my own.⁵⁸ As a monolingual white Australian, I lack the ability to speak authoritatively to other cultural contexts, and any attempt to do so may reinforce unforeseen cultural biases. Further research into the icon of the robot in other cultures, while outside the scope of this thesis, would be invaluable.

Paper Minds is the result of substantial historical and cultural research. Researching both the history and the contemporary impact of the Maharal and the golem, I have drawn from the foundational Jewish literary and philosophical scholarship of Gershom G. Scholem, Arnold Goldsmith, Byron Sherwin, and Moshe Idel, as well as the more recent work of Elizabeth Baer, Hillel J. Kieval, and Cathy Gelbin. I conducted historical research into the Jews of Prague during the era of Rudolf II in the early seventeenth century, looking at the works of Peter Marshall, Peter Demetz, and Angelo Maria Ripellino, along with the edited collections *Rudolf II and Prague* (1997) and *Path of Life: Rabbi Judah Loew Ben Bezalel ca. 1525-1609* (2009). I also undertook a research trip to Prague in 2017, during which I visited several key locations, including Jewish Town, the Old New Synagogue, the Maisel Synagogue, Prague Castle, and Vyšehrad. Furthermore, late in the drafting process, I paid to have my manuscript assessed by a sensitivity reader, Bogi Takács.⁵⁹ Their suggestions regarding Jewish history, culture, and religion, as well as their feedback about how I have represented gender fluidity and disability, have been incorporated into the final draft.

⁵⁷ Csicsery-Ronay Jr, *The Seven Beauties of Science Fiction*, 11.

⁵⁸ Bould and Vint, *The Routledge Concise History of Science Fiction*, x.

⁵⁹ More information on Bogi Takács can be found at <https://www.bogireadstheworld.com/>.

2. The icon of the robot

This chapter introduces Wolfe's icon of the robot alongside other consonant theories of SF, so that its broader impact can be critiqued. Wolfe's icons — the spaceship, the city, the wasteland, the robot, and the monster — stand as powerful signifiers both inside and outside of SF, evoking the genre's sense of wonder and linking its worlds of possibility to the reader's current and future worlds. These icons represent 'the opposition between the known and the unknown', acting as barriers in the text that, when breached through the application of reason, reveal unfamiliar futures to be explored.⁶⁰ Wolfe's icon of the robot provides a valuable critical tool for analysing depictions of anthropoidal automata, tracing the iconographic power of the figure of robot (the known) and the consequences of its presence (the unknown).

However, the icon of the robot retains traces of outdated values from SF's past, both in SF literature and in Wolfe's theory. These values are those of a mechanistic universe: a universe in which mechanism is considered superior to organism, inviting dehumanisation by relying upon exclusive definitions of humanity and devaluing the organic in favour of the machinic. Reflecting the liberal humanism of the Golden Age SF texts that Wolfe drew from, these values are easily visible in the known elements of the icon of the robot, as the icon draws power from its preceding works; but these values also shape the unknown futures that the text explores through the icon's presence. Thus the unknowns of a mechanistic universe — the supposition that logic is superior to illogic, that the abstract perfection of information is immortal and the messy variants of flesh is disposable, and the tension between the primacy of humans and the intrinsic superiority of machines — are not unknowns at all.

This chapter defines the icon of the robot. The values of a mechanistic universe echo within this icon; values based upon the supposition that mechanism is superior to organism. Where the unknown consequences of anthropoidal automata are tainted by this hierarchical assumption, machinic qualities (such as the purity of abstract information, and prescriptive definitions of personhood) take precedence over organic qualities (such as the value of

⁶⁰ Wolfe, *The Known and the Unknown*, 16, 17.

intrinsic difference and embodiment). I argue that by identifying these values in the icon of the robot, by destabilising the notion that the machinic is intrinsically superior to the organic, the mechanistic universe implicit in the icon of the robot is rebutted and contemporary issues are brought to the fore. This can be seen in chapter 3, 'Close study of *Ancillary Justice*', where I apply Wolfe's icon of the robot to Ann Leckie's *Ancillary Justice* (2013), a contemporary work of SF. Leckie's novel evokes the icon of the robot by building upon concepts familiar to SF, such as the transhumanist dream of consciousness-as-information; but then *Ancillary Justice* destabilises the mechanistic universe by demonstrating how this abstract replication is undermined by the inevitability of systemic physical difference. In chapter 5, 'Close study of *Paper Minds*', I analyse my own manuscript *Paper Minds* with the same lens, pushing against the primacy of mechanism and exclusionary definitions of personhood. Through my analysis of both texts, this thesis demonstrates the contemporary value of Wolfe's icon of the robot as a tool to identify the iconographic power of anthropoidal automata while also critiquing the mechanistic universe that this icon historically suggests.

Before Wolfe's icon of the robot is defined in this chapter, its context within SF theory and history is provided. I begin this by touching upon Darko Suvin's cognitive estrangement. While highly influential, Suvin's definition of SF is highly exclusionary, and is thus not fully employed in this thesis.⁶¹ Instead, I make use of a portion of Suvin's theory, the 'zero world' — the 'tacitly [presupposed] empirical reality' within a text — to identify the mechanistic universe that can undergird AI narratives.⁶² This chapter then defines the SF 'mega-text', the intertextual web of shared concepts that connects all SF.⁶³ This, combined with the subjunctive language by which SF concepts connect with real-world possibility, is

⁶¹ As Bould and Vint point out, rather than seeking the origins of SF one specific text, Suvin seeks to theorise the genre itself, and by this process exclude texts that failed to meet these requirements. Suvin's model ultimately constrains his own discussions as he 'expend[s] a lot of energy dismissing works that are commonly considered to be SF'. Kincaid echoes this perspective, pointing out that a slavish dedication to Suvin's definition of SF results in 'extraordinary convolutions as we try to show that certain favoured texts really do conform to the idea of cognitive estrangement, and even more extraordinary convolutions to reveal that familiar non-sf texts don't'. As Broderick tells it, the unquestioned popularity of Suvin's theories is itself a sign that they should be questioned or revised. Bould and Vint, *The Routledge Concise History of Science Fiction*, 3, 4, 19; Paul Kincaid, "On the Origins of Genre," *Extrapolation: A Journal of Science Fiction and Fantasy* 44, no. 4 (2003): 410; Broderick, *Reading by Starlight*, 32.

⁶² Suvin, *Metamorphoses of Science Fiction*, 11, 71. 'Zero' is used by Suvin here 'in the sense of a central reference point in coordinate system, or of the control group in an experiment'. *Ibid.*, 11.

⁶³ Broderick, *Reading by Starlight*, xiii.

how the icon of the robot resonates through both SF and real-world science.⁶⁴ Wolfe's icons are then defined, and the icon of the robot is unpacked, as is its relationship to the mechanistic universe of liberal humanism.

2.1 Suvin's zero worlds

As both a genre and a field of research, SF has faced — and resisted — many attempts to define it. The term 'science fiction' first arrived in the American lexicon in the late 1920s, gaining more traction than the earlier British term, 'scientific romance'.⁶⁵ But while the term 'science fiction' may have bloomed from the American pulp magazines of the mid-1900s, SF elements have been identified in texts that predate this era.⁶⁶ Ultimately, as SF critic Paul Kincaid points out, there is no SF 'urtext', no clear origin point SF, 'because there is no ancestral text that could possibly contain, even in nascent form, all that we have come to identify as science fiction'. According to SF scholars Mark Bould and Sherryl Vint, SF is best viewed as an 'ongoing processes of negotiation', as quintessential SF elements 'pre-exist' the formal naming of the genre. Appraising the myriad critical approaches to SF, writer and historian Farah Mendelsohn states that SF itself is 'less a genre ... than an ongoing discussion'; a consequence of the fact that SF is a 'polysemic discourse ... vulnerable to a multiplicity of interpretations, each of which produces a different landscape of [SF]'. As Attebery puts it, the 'cumulative and consciously collaborative body of story types' that

⁶⁴ Samuel R Delany, *The Jewel-Hinged Jaw: Notes on the Language of Science Fiction*, Revised ed. (Middletown: Wesleyan University Press, 2009), 10. (Hereafter referred to as *The Jewel-Hinged Jaw*.)

⁶⁵ Brian Attebery, "The Magazine Era: 1926-1960," in *The Cambridge Companion to Science Fiction*, ed. Edward James and Farah Mendelsohn (Cambridge: Cambridge University Press, 2012), 33; Aldiss and Wingrove, *Trillion Year Spree*, 27.

⁶⁶ The coining of the term 'science fiction' has been attributed to pulp SF magazine publisher Hugo Gernsback in 1929, who certainly popularised it — but according to Bould & Vint, '[t]he term 'Science-Fiction' was first used by William Wilson in 1851'. Bould and Vint, *The Routledge Concise History of Science Fiction*, 1-2. However, the true origin point of SF has a long history of academic contention, with theorists attributing the honour of the first SF text to works like H.G. Wells, Jules Verne, Edgar Allan Poe, or Mary Shelley; or to specific time periods, such the Copernican Revolution, or Ancient Greece. Attebery, "The Magazine Era: 1926-1960," 33; James E Gunn, *Inside Science Fiction*, 2nd ed. (Lanham: Scarecrow Press, 2006), 10; Wolfe, *The Known and the Unknown*, 7; Suvin, *Metamorphoses of Science Fiction*, 221; Aldiss and Wingrove, *Trillion Year Spree*, 18; John Rieder, *Colonialism and the Emergence of Science Fiction* (Middletown: Wesleyan University Press, 2012), 1; Roberts, *The History of Science Fiction*, vii.

constitutes SF creates a contentious site of textual evaluation, both particular and duplicitous, as broad or as specific as the discussion requires.⁶⁷

Nevertheless, discussing a text critically requires critical tools, and no critical discussion of SF would be complete without mentioning Darko Suvin's contributions. Suvin first defined SF as the 'literature of cognitive estrangement' in his 1972 article 'On the Poetics of the Science Fiction Genre', an argument which he refined in *Metamorphoses of Science Fiction* (1979).⁶⁸ Cognitive estrangement occurs in SF when a novelty element, or 'novum', is introduced into the 'zero world' of the text, an internally consistent, empirical world that is consonant with the experience of the reader.⁶⁹ The novum does not need to be a physical thing — it can be an innovation of any kind. It could be technological, such as an invention; it could be 'a setting (spatiotemporal locus) ... [or] agent (main character or characters);' or as SF writer and scholar Adam Roberts points out, it could be 'conceptual, such as a new conception of gender or consciousness'.⁷⁰ Furthermore, the novum must be scientifically possible within the logic of *its* world, but it does not need to be restricted by what is possible in *our* world.⁷¹ What matters is that the novum is '*validated by cognitive logic*' — as explained by Csicsery-Ronay Jr, the nature of the novum (and the consequences of its introduction) 'cannot contradict the logic of real social and natural history'.⁷² In appraising how the

⁶⁷ Kincaid, "On the Origins of Genre," 409; Bould and Vint, *The Routledge Concise History of Science Fiction*, 1; Farah Mendelsohn, "Introduction," in *The Cambridge Companion to Science Fiction*, ed. Edward James and Farah Mendelsohn (Cambridge: Cambridge University Press, 2012), 1, 10; Attebery, "Science Fictional Parabolas: Jazz, Geometry, and Generation Starships," 3. Attebery posits a unique method of analysing SF, the parabola, which begins in the realm of the known and then curves outward into the unknown, arriving at a new location in the generic phase space. In this model, '[t]he basic unit of [SF] creativity is not the individual text but the shared idea/narrative structure: the parabola'. Brian Attebery and Veronica Hollinger, eds., *Parabolas of Science Fiction* (Middletown: Wesleyan University Press, 2013), ix. While this approach has conceptual overlap with SF's subjunctive language and shared mega-text (see section 2.2), there is limited room in this thesis to give Attebery's parabola its due.

⁶⁸ Darko Suvin, "On the Poetics of the Science Fiction Genre," *College English* 34, no. 3 (1972): 372. Emphasis removed from original. Suvin builds here upon the SF scholarship of author and theorist Stanisław Lem. *Metamorphoses of Science Fiction*, 6. According to SF writer and scholar Joanna Russ, Suvin 'builds on the parameters prescribed' by Lem's article 1973 'On the Structural Analysis of Science Fiction', in which 'standards of plausibility ... must be derived not only from the observation of life as it is or has been lived, but also, rigorously and systematically, from science'. Joanna Russ, *To Write Like a Woman: Essays in Feminism and Science Fiction* (Bloomington: Indiana University Press, 1995), 4; Stanisław Lem, "On the Structural Analysis of Science Fiction," *Science Fiction Studies* 1, no. 1 (1973).

⁶⁹ Suvin, "On the Poetics of the Science Fiction Genre," 373; *Metamorphoses of Science Fiction*, 11. Suvin adapts the novum from the work of Ernst Bloch, and derives his concept of estrangement from the theories of Viktor Shklovsky and Bertolt Brecht. Ibid., 63; "On the Poetics of the Science Fiction Genre," 372.

⁷⁰ *Metamorphoses of Science Fiction*, 64; Roberts, *The History of Science Fiction*, 1.

⁷¹ Suvin, *Metamorphoses of Science Fiction*, 28.

⁷² Ibid., 63; Csicsery-Ronay Jr, *The Seven Beauties of Science Fiction*, 47. Emphasis in Suvin quote in original.

novum catalyses change within the empirical zero world of the text, creating what Attebery describes as ‘a radically estranged vision of the world in which we live’, the reader can infer the ideological possibilities of their own empirical real-world, ‘comparing the imaginary model with the ideological one [in a] process of feedback oscillation’.⁷³ The ‘essential tension’ created between what *is* known and what *could* be known ‘estranges the empirical norm of the implied reader’, bringing the strange similarities and reeling possibilities of our own world — ‘political, psychological, and anthropological’ — into focus. For Suvin, reading SF should be a revelatory act, a sociopolitical act, generating new insights for the reader about the world around them.⁷⁴

As an example, consider William Gibson’s *Neuromancer* (1984).⁷⁵ The progenitor of cyberpunk, Gibson’s novel pioneered a subgenre of SF in which the power of technology is viewed through the lens of violent noir and pitted against the individuality of flesh.⁷⁶ As in much of Gibson’s work, technology is presented as ‘the dominant paradigm for [mediating] reality’, creating ‘new modes of consciousness and behaviour’.⁷⁷ These new modes of consciousness can be seen not just in the advent of artificial intelligence, but also in complex psychological profiles that can predict a person’s behaviour with a high degree of accuracy.⁷⁸ In *Neuromancer*, technology has advanced to the point where the mind is fully quantified, both measurable (in the human) *and* creatable (in the machine). The novum at the heart of Gibson’s novel is that the mind has been solved and modelled on a mathematical level, and its patterns can be digitally predicted and replicated. Thus when this novum is injected into a zero world where technology rules all, an ideological position is illuminated: a mind expressed as pattern is seen to constitute a higher truth than the biological substrate it was based on.⁷⁹

⁷³ Attebery, “Science Fictional Parabolas: Jazz, Geometry, and Generation Starships,” 6; Csicsery-Ronay Jr, *The Seven Beauties of Science Fiction*, 50.

⁷⁴ Suvin, *Metamorphoses of Science Fiction*, 64, 15. As explained by Csicsery-Ronay Jr, ‘[w]ithout cognitive insight regarding historicity, it is no longer, for Suvin, [SF] at all’. Csicsery-Ronay Jr, *The Seven Beauties of Science Fiction*, 50.

⁷⁵ William Gibson, *Neuromancer* (New York: Ace Books, 1984). The following two paragraphs are taken from pages 390-391 of my 2019 article, ‘Ethical Depictions of Neurodivergence in SF about AI’, with some changes made. Ryan J Morrison, “Ethical Depictions of Neurodivergence in SF about AI,” *Configurations* 27, no. 3 (2019).

⁷⁶ Roberts, *The History of Science Fiction*, 311.

⁷⁷ Claire Sponsler, “Cyberpunk and the Dilemmas of Postmodern Narrative: The Example of William Gibson,” *Contemporary Literature* 33, no. 4 (1992): 628, 26.

⁷⁸ Gibson, *Neuromancer*, 28-30.

⁷⁹ Hayles, *How We Became Posthuman*, 37.

However, as Csicsery-Ronay Jr explains, the narrative elements that comprise a zero world ‘must be modeled on analogies in the reader’s experience, [and its] settings and actants must be realistically plausible. Otherwise, the novum will provide no cognitive gain’.⁸⁰ In other words, for the reader to map the zero world onto their existing understanding of their *own* world, the presented zero world must ring true. It must seem ‘*naturalistic*’.⁸¹ In the zero world of *Neuromancer*, what is naturalistic is that emotional affect is biologically universal. What the reader is invited to accept is an explicit binary – human/AI – that establishes further implicit binaries – emotional/unemotional, normal/abnormal – and aligns normative emotional affect with humanity. This universality of emotion is passively reinforced by the zero world of *Neuromancer*, a *mechanistic* zero world, in which a fully sapient mind can be reduced to abstract patterns.⁸² The consequence of this zero world is that this presupposed universality of emotion elides the experience of neurodivergent people, positioning the difference in their affective displays as inhuman.⁸³

The zero worlds of Suvin’s cognitive estrangement will be leveraged in this thesis to identify the mechanistic assumptions in SF about anthropoidal automata in Wolfe’s icon of the robot. However, Suvin’s definition of what counts as SF will not be employed, as this would require the exclusion of texts that contribute to the icon of the robot, such as the works of Asimov.⁸⁴ Comparatively, Wolfe distances himself from the argument that SF originated from any specific author or text, stating that ‘if a book or story or film was conceived as science fiction, presented as science fiction, and received by its audience as

⁸⁰ Csicsery-Ronay Jr, *The Seven Beauties of Science Fiction*, 48.

⁸¹ Suvin, *Metamorphoses of Science Fiction*, 11. Emphasis in original.

⁸² This is further reinforced by the text when the clean possibilities of the digital are positioned hierarchically above the messy realities of human ‘meat’. Gibson, *Neuromancer*, 152. Emphasis removed.

⁸³ This point is further expanded in section 3.2.2 in chapter 3. Furthermore, as I explain in my article ‘Ethical Depictions of Neurodivergence in SF about AI’, ‘in identifying harmful binaries’ in texts such as *Neuromancer*, ‘it would be reductive to assess these texts by another binary: acceptable/unacceptable’. Representation is complex, and transgressive portrayals have been claimed by members of marginalised communities in the past. Morrison, “Ethical Depictions of Neurodivergence in SF About AI,” 410.

⁸⁴ What SF scholar Rob Latham describes as Suvin’s ‘prescriptive hostility to large swathes of work’ runs counter to that of Wolfe. Rob Latham, ed. *Science Fiction Criticism: An Anthology of Essential Writings* (London: Bloomsbury, 2017), 98. For an example of Suvin’s analysis of Asimov, see Suvin, *Metamorphoses of Science Fiction*, 82, 136. For Wolfe’s analysis of Asimov — which does critique Asimov’s reduction of moral quandaries to purely rational ones, see Wolfe, *The Known and the Unknown*, 157-64. Asimov’s Robot stories have been collected in collected in *I, Robot* (1950), *Robot Dreams* (1986) and *Robot Visions* (1990). Isaac Asimov, *I, Robot* (New York City: Bantam Books, 2004); *Robot Dreams* (Newark: Audible Studios, 2014); *Robot Visions* (Prince Frederick: Recorded Books, 2015).

science fiction, it [is] fair game for discussion'.⁸⁵ By taking Wolfe's more inclusive approach, texts that Suvin excludes like Asimov's Robot stories can be discussed *as SF*, and their substantive impact on our conception of the robot can be acknowledged.

2.2 The mega-text

Given the widespread use of the robot across SF, the mega-text becomes essential for mapping depictions of AI across science fiction. An interconnected web of shared concepts, the mega-text 'allows an economy of description and ensures a general effect of the real', as readers recognise familiar concepts that act as 'stable semantic entities, functioning like quotations in a pedagogic discourse'.⁸⁶ Appraising the 'territory [of] narrative phase space' that makes up the genre, Broderick explains that SF draws its cumulative symbolic power from a host of common signifiers, a rich lexicon of terms and concepts that form — 'an unusually concentrated "encyclopaedia" ... of imaginary worlds, tropes, tools, lexicons, [and] even grammatical innovations'. As Attebery explains, this can include, 'knowledge of the physical universe along with the imagined social and technological worlds'. This perspective is echoed by Kincaid, who likens SF to a 'pattern' instead of a genre, redefined by a constant process of natural selection. For Broderick, it is not sufficient to define SF just by its 'distinctive themes, formulae and tropes', or its penchant for formulating thought experiments.⁸⁷ Disagreeing with SF theorists like John Rieder and Adam Roberts, for whom the origins of SF can be found before the Industrial Revolution, Broderick asserts that SF is a '*diachronic* medium ... a medium of historical, cumulative change, in which each step is unlike the last', a definition which separates SF from the cyclical historicity of myth and fairy tales.⁸⁸

The SF mega-text began with American pulp magazines, where popular entertainment stood on the shoulders of 'high-culture forebears [such] as Verne and Wells',

⁸⁵ Wolfe, *The Known and the Unknown*, xiv.

⁸⁶ Brook-Rose, *A Rhetoric of the Unreal*, 86. Brook-Rose elaborates here on the ideas of Philippe Hamon. Hamon, "Un Discourse Constraint," 425-26. The mega-text has since been expanded by Damien Broderick, from where this thesis draws much of its scholarly thought on the matter.

⁸⁷ Broderick, *Reading by Starlight*, 23, xiii; Attebery, "Science Fictional Parables: Jazz, Geometry, and Generation Starships," 8; Kincaid, "On the Origins of Genre," 413; Broderick, *Reading by Starlight*, 41.

⁸⁸ Rieder, *Colonialism and the Emergence of Science Fiction*, 1; Roberts, *The History of Science Fiction*, vii; Broderick, *Reading by Starlight*, 4. Emphasis in original Broderick quote.

catalysed by an ‘incantatory’ excitement about science and technology, free from the dry realities of real-world STEM.⁸⁹ It was this environment that gave rise to authors such as Asimov and Clarke.⁹⁰ Within the pulps themselves, a culture of publishing open communication between SF readers and writers fostered the creation of ‘a semiotic community, sharing class-based sociocodes as well as generic protocols’.⁹¹ From here, an ‘epigenetic landscape’ formed, shaped by a successive process of iteration, mutation, and expansion, in which familiar concepts are recycled and reinterpreted. This network of concepts, constantly introduced and reinforced by each successive text, includes SF mainstays like cyberspace, hyperspace, nanotech, and of course AI. Indeed, without some understanding of SF’s ‘unorthodox vocabulary and grammar, [and] its generic intertextuality’, Broderick claims that science fiction is ‘next to meaningless’, incapable of making any real sense outside of the greater context of the genre.⁹² For Broderick, the mega-text is only one of three definitional elements of SF — Broderick also identifies SF by its ‘metaphoric strategies and metonymic tactics’, and its ‘scientific and postmodern ... attention to the object in preference to the subject’.⁹³

It is within the mega-text that Wolfe’s icons can be found. As Broderick explains, creators of SF ‘tend to cohere about a limited number of narrative vectors’, and it is these images and concepts that Wolfe identifies as being iconic.⁹⁴

2.3 Wolfe’s icons

In *The Known and the Unknown* (1979), Wolfe defines five icons that are pivotal to the identity of SF: the spaceship, the city, the wasteland, the robot, and the monster. These SF icons are more powerful than mere tropes or narrative conventions; they are ‘as representative of the fundamental beliefs and values that the genre explores as the icons of Christ were representative of ... the early Christians’.⁹⁵ Imbricated with the SF mega-text, icons act as

⁸⁹ *Reading by Starlight*, 22, 23.

⁹⁰ Attebery, “Science Fictional Parabolas: Jazz, Geometry, and Generation Starships,” 5.

⁹¹ Broderick, *Reading by Starlight*, 23. See also Attebery, “The Magazine Era: 1926-1960,” 37.

⁹² Broderick, *Reading by Starlight*, 21, 59, 8.

⁹³ *Ibid.*, 155. Emphasis removed. For an explanation of SF’s use of metaphor and metonym through a quick analysis of Gibson’s *Neuromancer*, see *ibid.*, 84-85.

⁹⁴ *Ibid.*, 60, 59.

⁹⁵ Wolfe, *The Known and the Unknown*, 16.

‘semantic and trophic givens or vectors’, repeated across the mega-text in a process of ‘*semiological compensation*, or redundancy and over-coding’.⁹⁶ These icons, repeatedly referenced and revised from text to text, are, in SF writer and critic Gwyneth Jones’ view, ‘the signs which announce the genre ... and at the same time constitute [its] difference’. Icons express a set of core themes and beliefs, ‘represent[ing] something both supernatural (or at least other-worldly), artistically conventional ... and yet clearly belonging to the public domain’. Jones describes icons as existing on a ‘very specific borderland ... not drawn from nature, or invoked from the notional freedom of “fantasy”: they are the reasoned hybrids of imagination and the machine’, which due to their historicity ‘deserve to be revisited, *in their original forms*’.⁹⁷

For Wolfe, works of SF tend to have common (but nonmandatory) ‘characteristics’: a balancing of ‘the “knowability” of the universe’ against a ‘sense of wonder,’ which is achieved by juxtaposing the known against the unknown through the use of ‘symbolic barriers to knowledge’. This barrier can function in two ways. The barrier can be the focus of the story, ‘a central metaphor around which the action of the story revolves’; or the barrier can be ‘secondary to the depiction of the worlds that it separates’, in which case the barrier is easily breached and the core of the plot revolves around the unknown world behind it. This barrier between known and unknown is ‘an essential feature of most narrative plot construction’, but due to SF’s ‘ancestral pulp narrative style’, these barriers ‘tend to be reified and focused into specific, concrete images’. This can be seen in the icon of the robot, which symbolises the unknown consequences of creation seen through the lens of known sociological factors.⁹⁸

The barrier described by Wolfe is created through SF’s use of subjunctive language, first defined by author and literary critic Samuel R. Delany in 1968, which linguistically frames fantastic events as being within the realm of what is possible.⁹⁹ This use of subjunctive language is further strengthened by SF’s connection to the sciences, a conduit

⁹⁶ Broderick, *Reading by Starlight*, 59.

⁹⁷ Gwyneth Jones, “The Icons of Science Fiction,” in *The Cambridge Companion to Science Fiction*, ed. Edward James and Farah Mendelsohn (Cambridge: Cambridge University Press, 2012), 163, 73. Notably, while Jones’ chapter on icons has considerable overlap with that of Wolfe, Wolfe is not mentioned by Jones. (Jones 2012, p. 173). Emphasis mine.

⁹⁸ Wolfe, *The Known and the Unknown*, xiii, 34, 30, 30-31, 19.

⁹⁹ Subjunctivity in SF has also been expanded by SF scholar Joanna Russ. Delany, *The Jewel-Hinged Jaw*; Russ, *To Write Like a Woman*.

through which SF explores fact through fiction. As Jones explains, icons help build the SF mega-text by giving writers the power to signal larger, established concepts in symbolic shorthand. But for this process to work, 'the reader has to be able to understand the significance of these signals', making the act of reading SF 'an active process of translation'. As explained by Attebery, Delany's conception of reading SF 'demand[s] both a particular sort of attention and the application of knowledge from outside the text', as the reader is invited to '[fill] in the gaps' from their existing knowledge of concepts from both SF and science.¹⁰⁰

It is the subjunctivity of Wolfe's icons that connect works of SF to the SF mega-text, which is 'part encyclopaedia of knowledge drawn from current scientific data and theories, part iconography established in previous [SF], part generic repertoire as standard narrative moves'.¹⁰¹ Portrayed in subjunctive language that frames them as 'neither impossible or verifiably possible', icons constantly threaten to slip free from fantastic speculation into wondrous, dangerous possibility. This is demonstrated in the third identifiable factor by which Wolfe's icons draws power: the proven link between fiction and fact. Each icon operates on 'psychological and cultural levels as well as fictive and aesthetic ones', evident in how the impact of these icons resonates well beyond their fictional context.¹⁰² For example, the icon of the robot in SF has inspired roboticists for years, which is apparent in the vast quantity of published dedications by roboticists to fictional robots 'from *2001: A Space Odyssey*'s HAL to *Star Wars*' R2-D2 and C-3PO to ... Dick's androids in *Do Androids Dream*'.¹⁰³ The work undertaken by roboticists (and other scientists) is then reflected back into SF. As Csicsery-Ronay Jr notes, this can be seen in the ways SF authors 'use the language and history of technoscience to evoke the coherence and correspondence of the scientific worldview', but from a position of experimental playfulness, using the 'raw materials' of contemporary scientific thinking to perform fictive experiments.¹⁰⁴ Like each of Wolfe's icons, the robot has been cross-pollinated in this fashion, back and forth between its

¹⁰⁰ Jones, "The Icons of Science Fiction," 163; Attebery, "Science Fictional Parabolas: Jazz, Geometry, and Generation Starships," 6, 8. According to Attebery, '[o]ne of the pleasures of [SF] is learning scientific facts: experienced readers learn to filter out mere technobabble from genuine information about subatomic physics or cosmology'. Ibid., 8.

¹⁰¹ Broderick, *Reading by Starlight*, 67-68.

¹⁰² Wolfe, *The Known and the Unknown*, 18, 17.

¹⁰³ Rhee, *The Robotic Imaginary*, 8.

¹⁰⁴ Csicsery-Ronay Jr, *The Seven Beauties of Science Fiction*, 111.

fictional and nonfictional contexts, each contributing to the imaginative possibilities of the other.

But icons are not immutable. Change is inevitable, which Jones explains can be seen in the micro scale (from text to text) and the macro scale (as a shifting historic trend). On the micro scale, because icons are ‘culturally determined’, each SF text will present ‘its own variant iconography (a differently designed robot, an idiosyncratic form of faster-than-light drive)’; but these icons nevertheless gesture towards ‘a core repertoire of ... salient images’ recognisable to those familiar with ‘twenty-first century folklore’. Comparatively, on the macro scale, SF concepts that were once ‘wild’ and ‘innovative’ — SF mainstays such as ‘[c]yborgs, virtual environments, genetically engineered plants, animals and even humans, artificial intelligence, cataclysmic climate change, mind-reading machines, [and] quantum computing’ — are now commonplace thoughts of the present and future, each innovation ‘annexed by the everyday’.¹⁰⁵ Icons also rely on a relevant contemporary context to operate — they are ‘symbolic ... of the “sense of wonder” that the genre is supposed to generate’, and this becomes a problem if wonder is no longer apparent.¹⁰⁶

But this is not to say that icons are, in the contemporary sphere, without power. Jones explains that, while the early magic of SF may fade over time, ‘an icon is meaning as well as spectacle, and there is a logic to the icons of [SF] that will always recall the reader of these signs to the printed page’.¹⁰⁷ In this light, it becomes fruitful to interrogate SF icons both on the grounds of their meaning and their contemporary evolution, as one of Wolfe’s icons — the icon of the robot — carries with it the semiotic connotations of both.

2.4 Wolfe’s icon of the robot

Wolfe’s icon of the robot reflects SF’s history of depicting intelligent machines — as tools that extend/replace human will and capability, and which, through their mechanistic nature,

¹⁰⁵ Jones, “The Icons of Science Fiction,” 163-64, 72-73.

¹⁰⁶ Wolfe, *The Known and the Unknown*, 23. For example, when Wolfe identified these five icons in 1979, he disqualified television as a potential icon, as its commonplace nature prevented it from evoking a sense of wonder — it is too known for it to *feel* unknown. *Ibid.*, 28. Wolfe touched briefly upon his icons in 2011, updating the icon of the robot to ‘the intelligent machine’, and maintaining his position that SF icons leverage familiarity ‘while at the same time ... remain estranged from us in some significant aspect’. “The Artifact as Icon in Science Fiction,” 83.

¹⁰⁷ Jones, “The Icons of Science Fiction,” 173.

threaten the primacy of the organic. According to Wolfe, SF about anthropoidal automata concerns itself with this conflict, exploring the tension between organism and mechanism through depictions of mechanisms of increasing complexity. However, the values underpinning this progression are reflective of a mechanistic universe, in which mechanism is considered logically superior to organism. As I demonstrate in chapters 3 and 5, the icon of the robot does not require a mechanistic zero world to function, and can instead provide new perspectives on our posthuman relationship with intelligent technology. I demonstrate this in my analysis of in *Ancillary Justice* and its depictions of systemic individuality; as well as in *Paper Minds*, through its rejection of implicit trust in opaque systems, and its celebration of inclusive definitions of personhood.

For Wolfe, the icon of the robot is the nexus between what we know about technology and the unknown consequences of its use. Icons act as a 'direct [expression] of the fears and values of society', wherein the advance of technology represents what Graham describes as a 'threat to human integrity'.¹⁰⁸ What makes the robot unique is that its anthropomorphic form constitutes a 'shadowland somewhere between that which is clearly human and that which is clearly mechanical', becoming a mirror within which 'humanity sees itself reflected in the works of its own technology'.¹⁰⁹ Like Wolfe's other icons, the robot is a 'pivotal image ... [becoming] the gateway to a whole universe of unknown possibilities' through its embodiment of the unknown within the known.¹¹⁰ Wolfe explains further:

The robot ... partakes of the known in a number of ways: its genesis lies in the technology of toolmaking and the sociology of slave labor; its place in society is predetermined by the existing class system; its physical appearance is usually derived from the familiar image of the human body. But it also partakes of the unknown: its intelligence is unlike our own, its motivations (if it has any) are unclear, the results of its coming into existence are unpredictable.¹¹¹

¹⁰⁸ Wolfe, *The Known and the Unknown*, 21; Graham, *Representations of the Post/Human*, 208.

¹⁰⁹ Wolfe, *The Known and the Unknown*, 153. There is a clear overlap between the icon of the robot and the icon of the monster. As Wolfe explains, '[i]f technology is the systemic appropriation and ordering of natural forces, the monster is the spontaneous bursting forth of those forces in strange and terrible guises'. *Ibid.*, 187. Unfortunately, a full exploration of the overlap between the icon of the monster and the icon of AI lies beyond the bounds of this thesis.

¹¹⁰ *Ibid.*, 22.

¹¹¹ *Ibid.*, 19.

Within the robot, the known conceals the unknown, acting as a barrier between what is comfortable and what is uncomfortable. It is this barrier that the SF narrative seeks to breach.

But the pivotal image of the robot has not remained static. Explaining that each of Wolfe's icons lacks 'a single, univocal conventional weight or meaning even within a given generic timeframe or publishing regime', Broderick notes that the icon of the robot has evolved many times since the 1930s texts that Wolfe drew from. Wolfe first identified his icons through an analysis of American and British SF drawn from 'the late 1930s to the early 1960s', a notably prolific period for SF.¹¹² This period, referred to as 'the Golden Age' of SF, overlaps with much of John W. Campbell Jr's tenure as editor of *Astounding Science Fiction*.¹¹³ The Golden Age gave rise to the careers of SF writers like Isaac Asimov, whose enduring depictions of morally-programmed robots from 1940 onwards inspired early AI luminaries such as Marvin Minsky.¹¹⁴ Campbell's editorial influence at *Astounding* was instrumental in shaping SF during this time; according to SF scholar Lisa Yaszek, Campbell 'encouraged writers to think through the social implications of science and technology and to put a human face on the sometimes overwhelmingly abstract issues'.¹¹⁵ But Campbell's influence on the genre is not without substantial criticism.¹¹⁶ It is important to note that while Golden Age texts were highly influential, the reins of SF should not be placed solely in the hands of

¹¹² Broderick, *Reading by Starlight*, 60; Wolfe, *The Known and the Unknown*, xi, ix.

¹¹³ Roberts, *The History of Science Fiction*, 195. There is only vague consensus as to the beginning and end of the Golden Age. For further discussion on the topic, see Attebery, "The Magazine Era: 1926-1960," 33, 37; Bould and Vint, *The Routledge Concise History of Science Fiction*, 61; Aldiss and Wingrove, *Trillion Year Spree*, 227.

¹¹⁴ Isaac Asimov, "Robbie," in *I, Robot* (New York City: Bantam Books, 2004); "Introduction: The Robot Chronicles."

¹¹⁵ Lisa Yaszek, *Galactic Suburbia: Recovering Women's Science Fiction* (Columbus: Ohio State University Press, 2008), 21. (Hereafter referred to as *Galactic Suburbia*.)

¹¹⁶ In her speech accepting The John W. Campbell Award for Best New Writer in 2019, author Jeanette Ng referred to Campbell as 'a fascist', calling out the core tenets of his legacy: 'Sterile. Male. White. Exalting in the ambitions of imperialists and colonisers, settlers and industrialists'. Surely afterwards, *Analog* renamed the award to The Astounding Award for Best New Writer. Author Michael Moorcock provides similarly scathing critique of Campbell's legacy, describing *Astounding* as 'a cryptofascist, deeply philistine ... pretending to intellectualism and offering idealistic kids an "alternative" that was, of course, no alternative at all'. Jeannette Ng, "John W. Campbell, for Whom This Award Was Named, Was a Fascist," Medium, <https://medium.com/@nettlefish/john-w-campbell-for-whom-this-award-was-named-was-a-fascist-f693323d3293>; Trevor Quachri, "A Statement from the Editor," The Astounding Analog Companion, <https://www.nytimes.com/2019/08/28/books/john-w-campbell-award-jeannette-ng.html>; Michael Moorcock, "Starship Stormtroopers," *Cienfuegos Press Anarchist Review* 4 (1978).

the white male North Americans that dominated it.¹¹⁷ Thankfully, Wolfe's choice to analyse his icons within Golden Age SF is not an attempt to centre ownership of these icons within this era. Wolfe acknowledges that the icons he identifies existed before the Golden Age and have continued to evolve since. He focuses on Golden Age SF because it is 'the "middle ground" of science fiction's development', within which a great volume of influential works were created.¹¹⁸

Indeed, Wolfe conceived of his icons as being independent from any identifiable point of genesis. Icons are infectious concepts, replicated in the zeitgeist 'even in cases in which science-fiction writers might never have read the specific works that they are attempting to supersede'. This can be seen in the evolution of robotic depictions. According to Wolfe, the technology explored in SF in the 1950s was approached from an economic perspective, and thus 'robots became science fiction's standard metaphor for economic exploitation'. Between this period and the late 70s, the metaphorical power of robots was extended to include 'teleological questions about the nature of humanity and consciousness'. For Wolfe, this extension of the robot into the sphere of human experience is intertwined with the introduction of the computer, which threatens to 'supplant the function of the human mind' in the same manner that the robot 'supplants the functions of the human body'.¹¹⁹ Here, the computer occupies the same conceptual space as the robot, but notably, one does not always necessitate the other. This illustrates the malleable conceptual shape of Wolfe's icons; from a contemporary perspective, robots and computers are inseparable, the former unable to exist without the latter. Even during Wolfe's time, the icon of the robot was evolving into something else, progressing from an entity that *might* contain a computer into an entity that *must*.

¹¹⁷ Roberts, *The History of Science Fiction*, 203. In her research of postwar women's SF, Yaszek discovered that, despite the assumption by publishers that 'women had little or no interest in scientific, social, or political issues', almost 300 women published SF in the wake of World War II, and after the work of authors like Judith Merrill, Zenna Henderson, and Margaret St. Clair, 'no one doubted women writers' interest in SF'. Yaszek, *Galactic Suburbia*, 2-3, 22. Furthermore, while an association has been drawn between SF and American culture, multiple European SF magazines predate the Golden Age. Aldiss and Wingrove, *Trillion Year Spree*, 202; Attebery, "The Magazine Era: 1926-1960," 32.

¹¹⁸ Wolfe, *The Known and the Unknown*, ix.

¹¹⁹ *Ibid.*, xii, 153.

2.4.1 From machinic, to anthropomorphic, to deific

Wolfe's icon of the robot analyses both robots and computers by assessing their complexity in relation to human capability, tracking their capabilities across three stages of progression: from simple tools; to machines that rival humans in complexity and capability; to entities that are unimaginably complex.¹²⁰ Wolfe charts this progression in a diagram that covers individual steps of complexity, but not these three overall stages, instead covering them later in that chapter.¹²¹ For the purposes of this thesis, I have integrated the three stages of complexity outlined by Wolfe into a recreation of Wolfe's diagram, titling these categories as machinic, anthropomorphic, and godlike (see Figure 1).

The first category in this diagram, the machinic, describes robots that are designed to extend or replace human capability, but *not* human decision-making.¹²² Some examples of servile anthropoidal automata in SF that fit this category include the Master's robot from Arthur C. Clarke's *The City and the Stars* (1956), T.O.M. in Bulkhead Interactive's video game *The Turing Test*, and droids like C-3PO from the *Star Wars* franchise (1977 – present),

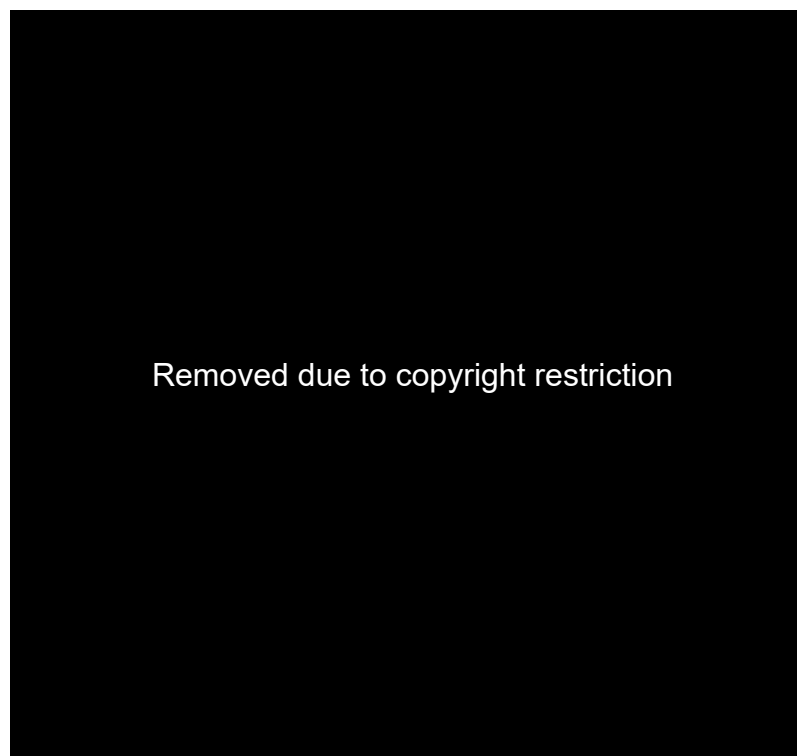


Figure 1, adapted from (Wolfe 1979, p. 154). The labels 'Machinic', 'Anthropomorphic', and 'Godlike' (and the lines separating these sections of the chart) are not present in Wolfe's original diagram.

¹²⁰ Ibid., 153-54. Stanisław Lem's 'Robots in Science Fiction', first published in 1969, also provides a categorical breakdown of four stereotypical uses for robots in SF. Stanisław Lem, "Robots in Science Fiction," in *SF: The Other Side of Realism*, ed. Thomas D Clareson (Bowling Green: Bowling Green University Popular Press, 1971). Unfortunately, a comparison between Lem's stereotypes and Wolfe's categories lies beyond the scope of this thesis.

¹²¹ Wolfe, *The Known and the Unknown*, 157.

¹²² Ibid., 154.

most recently seen in *Star Wars: The Rise of Skywalker* (2019).¹²³ While independence of a kind is displayed in each of these anthropoidal automata, they are ultimately programmed to be servile to humans. The second category, the anthropomorphic, describes robots that *are* complex enough to extend or replace human decision-making, which includes taking on ‘mock-human consciousness and appearance’ and acting as an operative image of a human.¹²⁴ Some examples of this in SF include the electric grandmother in Ray Bradbury’s short story ‘I Sing the Body Electric!’ (1969), the synths in Sam Vincent and Jonathan Brackley’s television series *Humans* (2015-2018), and the androids of Quantic Dream’s video game *Detroit: Become Human* (2018).¹²⁵ In these texts, servility continues to be enforced upon these anthropoidal automata, and many seek emancipation.

The third category — the final row of Wolfe’s diagram, and the purported end point for increasingly complex intelligent machines — is the godlike category. Here ‘the created becomes the creator’, and we find machine intelligences that are so advanced they have attained deific capabilities.¹²⁶ As Vinge’s popular 1993 prediction of the Singularity demonstrates, this eschatological vision of an AI future is highly resonant, and disembodied intelligent machines ascending to godlike power can be seen in works of SF like Dan Simmons’ *Hyperion Cantos* (1989-1997), Poul Anderson’s *Genesis* (2000), and Ian McDonald’s *River of Gods* (2004), to name just a few.¹²⁷ Unfortunately, an interrogation of the impact of SF depictions of godlike intelligent machines lies beyond the scope of this thesis. But the philosophical position underpinning this SF vision of the future needs to be

¹²³ Arthur C Clarke, *The City and the Stars* (Leicester: W. F. Howes Ltd, 2013); *The Turing Test*, Square Enix, UK; George Lucas, *Star Wars* (United States: 20th Century Fox, 1977); J J Abrams, *Star Wars: The Rise of Skywalker* (Walt Disney Studios Motion Pictures, 2019).

¹²⁴ Wolfe, *The Known and the Unknown*, 154-55. For Wolfe, an ‘android’ is a robot that appears human, and a ‘cyborg’ is a robot with a human brain. As explained in the introduction, this thesis leverages Wiener’s concept of ‘operative images’ as extrapolated by LaGrandeur, who explains that ‘[t]he imitation of the human can reside in the simulacrum’s human functionalities as well as its form’. Wiener, *God & Golem, Inc.*, 38; LaGrandeur, *Androids and Intelligent Networks in Early Modern Literature and Culture*, 5.

¹²⁵ Ray Bradbury, “I Sing the Body Electric!,” in *I Sing the Body Electric!*, ed. Ray Bradbury (London: Hart-Davis, 1977); *Detroit: Become Human*, Sony Interactive Entertainment, PlayStation 4; Sam Vincent and Jonathan Brackley, *Humans* (United Kingdom: Channel 4, AMC Studios, & Kudos, 2015).

¹²⁶ Wolfe, *The Known and the Unknown*, 155.

¹²⁷ Vinge, “The Coming Technological Singularity: How to Survive in the Post-Human Era.”; Dan Simmons, *Hyperion* (Newark: Audible Studios, 2008); *The Fall of Hyperion* (Newark: Audible Studios, 2008); *Endymion* (Newark: Audible Studios, 2009); *The Rise of Endymion* (Newark: Audible Studios, 2009); Poul Anderson, *Genesis* (Ashland: Blackstone Audio, Inc., 2011); Ian McDonald, *River of Gods* (Newark: Audible Studios, 2012).

addressed, as the predicted progression from tool to humaniform to godhood is present in both machinic and anthropomorphic aspects of the icon of the robot.

2.4.2 Organism versus mechanism

Wolfe's diagram charts a conceptual progression within which the seed of human obsolescence lurks in SF within 'the simplest concept of "tool"'. Through the threat of their increasing technological advancement, robots pose the question: 'if a single human function can be supplanted by mechanism, is it not possible that all human functions might one day be so replaced?'¹²⁸ According to Vint, this definition of human set against the tools we use to control nature resonates with elements of both liberal and humanist positions, in which the human ideal requires both a separation from nature and the 'ability to shape and own nature'.¹²⁹ But for *all* human function to be supplanted by mechanism, human function must be *replicable* by — and thus *compatible* with — the functions of mechanism, a supposition found in the corpus of Wolfe's SF research. Golden Age SF texts consider mechanism to be superior to organism on a fundamental level, an ideological stance upheld by the influence of *Astounding* editor John W. Campbell.¹³⁰ But accompanying this stance is a fundamental quandary: this 'mechanistic universe' is considered at odds with 'the notion of human dominion'.¹³¹ In Golden Age SF, humans create a servile race that, by their own technocratic values, is *better* than them — more mechanical, more logical — and thus they struggle to maintain physical and ethical dominance over it.¹³²

¹²⁸ Wolfe, *The Known and the Unknown*, 155.

¹²⁹ Vint, *Bodies of Tomorrow*, 12. As explained in the introduction, Vint's critique of liberal humanism does not encompass the school of thought in its entirety, but rather 'this particular cluster of elements evident in much liberal, humanist, liberal humanist, and posthumanist thought'. *Ibid.*, 11-12.

¹³⁰ Wolfe, *The Known and the Unknown*, 155, 66. According to Wolfe, Campbell had 'faith in technocracy'. *Ibid.*, 153.

¹³¹ *Ibid.*, 157.

¹³² Karel Čapek's 1920 play *R.U.R.* explores this concept on the large scale of class warfare, culminating in a revolution in which robots overthrow their masters; and texts such as E. M. Forster's 'The Machine Stops' (1909) explore this concept on the small scale of the individual, demonstrating that an utter dependence on mechanisation will result in the dissolution of 'the protective fabric of society', leaving 'each human ... to wither in isolation'. Čapek, "R.U.R."; E M Forster, "The Machine Stops," in *The Machine Stops and Other Stories*, ed. E M Forster (London: Collector's Library, 2012); Wolfe, *The Known and the Unknown*, 156. Themes exploring human misery within the totalising control of technology can also be seen in Harlan Ellison's 'I Have No Mouth, and I Must Scream' (1967), the *Black Mirror* episode 'Fifteen Million Merits' (2011), and the webcomic 'Hob' by Aaryn Diaz, published as *The Tomorrow Girl* (2013). Harlan Ellison, *I Have No Mouth, and I*

For Wolfe, confronting humanity's place in a mechanistic universe is a problem that SF about robots seeks to solve, aiming to disprove the idea that 'in a logically governed universe ... there is no place for illogical beings'. In the machinic category of Wolfe's diagram, where robots 'assist' or 'supplant certain human functions', SF texts argue that 'robots will never be more than tools, and their apparent threat to supplant humans can be traced back to their misuse as tools'. Wolfe provides the example of Asimov's Three Laws of Robotics, a set of rules intended to enforce servility in robots, but which, in practice, result in multiple quandaries as these rules come into conflict with one another.¹³³ Asimov's Three Laws are as follows:

First Law – A robot may not injure a human being or, through inaction, allow a human being to come to harm.

Second Law – A robot must obey the orders given it by human beings except where such orders would conflict with the First Law.

Third Law – A robot must protect its own existence as long as such protection does not conflict with the First or Second Laws.¹³⁴

The legacy of Asimov's Three Laws can be seen in a broad array of SF, where the programmed inability to disobey or harm humans provides ample grist for both character-building and conflict. Some texts, like Bernard Beckett's 2006 novel *Genesis* and James Cameron's 1986 movie *Aliens*, directly reference Asimov.¹³⁵ Other texts lack laws as explicit

Must Scream, *I Have No Mouth, and I Must Scream* (New York: Ace Books, 1983); Euros Lyn, "Fifteen Million Merits," in *Black Mirror* (Netflix, 2011); Diaz, *The Tomorrow Girl*.

¹³³ Wolfe, *The Known and the Unknown*, 156, 54, 57, 58-59. Wolfe is quick to point out the semantic ambiguity inherent in Asimov's Three Laws. In the opinion of Bostrom & Yudkowsky, the Three Laws 'are as much a plot device as Asimov's "positronic brain." If Asimov had depicted the Three Laws as working well, he would have had no stories'. Nick Bostrom and Eliezer Yudkowsky, "The Ethics of Artificial Intelligence," in *The Cambridge Handbook of Artificial Intelligence*, ed. Keith Frankish and William M Ramsey (Cambridge: Cambridge University Press, 2014).

¹³⁴ Asimov, "Runaround." In Asimov's short story 'The Evidable Conflict' (1950), the First Law is broadened by the Machines, which oversee all human affairs, to put the safety of humanity over the safety of individual humans: 'No Machine may harm humanity; or, through inaction, allow humanity to come to harm'. "The Evidable Conflict," 222. (Asimov *The Evidable Conflict* 2004, p. 222) This was later codified by Asimov into the Zeroth Law: 'A robot may not harm humanity, or, by inaction, allow humanity to come to harm.' Conflict surrounding this Zeroth Law is the driving force behind Alex Proyas' 2004 adaptation, *I, Robot*. "My Robots."; Alex Proyas, *I, Robot* (United States: 20th Century Fox, 2004).

¹³⁵ James Cameron, *Aliens* (United States: 20th Century Fox, 1986), DVD; Bernard Beckett, *Genesis* (Grand Haven: Brilliance Audio, 2009). The friendly android Bishop in *Alien* adheres to his programming and poses no apparent threat; whereas the intended programmatic pacifism of Art in *Genesis* proves insufficient in preventing him from doing harm to humans.

as Asimov's, such as Martha Wells' 2017 novella *All Systems Red* (the first in The Murderbot Diaries series), and Leckie's Imperial Radch trilogy, but still establish that their AIs are programmed to obey humans.¹³⁶

In the anthropomorphic category of Wolfe's diagram, where robots 'independently imitate' or 'supersede human functions', SF texts assert human dominance through the psychic force of the human intellect, 'demonstrat[ing] that the mechanistic universe itself is physically integrated with the concept of mind'.¹³⁷ Wolfe illustrates this point in part through Jack Williamson's "With Folded Hands" (1947), but more crucially through its sequel, *The Humanoids* (1948), in which humans oppressed by machines assert their value by developing psychic powers.¹³⁸ This attempt to justify humanity in SF by its own mechanistic standards is then writ large in the deific category of godlike machines. Wolfe's diagram charts what he saw as 'a cyclical creation myth' in SF, wherein increasingly complex machines grow to supersede us until, with their godlike powers, these machines '[strive] to give birth to an extinct mankind', undertaking the same quest for meaning that humans undertook when creating said machines.¹³⁹

Both this quandary, and these attempts to solve it, are predicated on the hierarchical assumption that the *mechanical* (which is associated with logic) is superior to that which is *organic* (which, by virtue of this manufactured opposition, is thus associated with illogic). To compare mechanism against organism, they first must compete on similar grounds. Organism has long been positioned as being equivalent to mechanism — the metaphorical comparison of the two has substantial history, as we humans have envisaged ourselves as

¹³⁶ Wells, *All Systems Red*; Ann Leckie, *Ancillary Sword* (London: Little, Brown Book Group, 2014); *Ancillary Mercy* (London: Little, Brown Book Group, 2015). Both examples feature anthropoidal automata who, gaining independence beyond the bounds of their original programming, still care about the welfare of humans close to them. The SecUnit of *All Systems Red*, a cyborg who calls itself 'Murderbot', grows to 'love' its humans; it puts itself in extreme danger to protect them, but ultimately remains independent of them. In Leckie's Imperial Radch trilogy, AIs have been programmed to care emotionally about their crew, and they continue to take care of them even after they have gained programmatic independence.

¹³⁷ Wolfe, *The Known and the Unknown*, 154, 57.

¹³⁸ Wolfe attributes this development in Williams' narrative to Campbell, explaining that to 'in the late 1940s, under the influence of L. Ron Hubbard and others, Campbell was rather taken with the idea of what he called "psi phenomena," or psychic powers'. *Ibid.*, 166.

¹³⁹ *Ibid.*, 153, 55. Wolfe draws evidence for this 'implied mythology' from works such as Asimov's 'The Last Question' (1956). In this story, a godlike computer outlives not just humanity, but the known universe; and in a cyclical turn goes on to recreate humanity, integrating disembodied human minds within this infinite computer — a true mechanistic universe. It is noteworthy that, within Asimov's ultimate universal integration of human and machine, the machine is still considered categorically higher than the human. *Ibid.*, 155, 75-76; Isaac Asimov, "The Last Question," in *Robot Dreams* (Newark: Audible Studios, 2014).

everything from ‘pumps and pulleys to clockwork to steam engines to computers’.

Philosopher Max Black explains that metaphors of this kind are a powerful tool for conveying complex ideas; and according to philosopher Richard Boyd, these metaphors can be a source of inspiration, illuminating new aspects of the phenomena they represent.¹⁴⁰ But as prominent feminist scholar Donna Haraway explained in ‘A Cyborg Manifesto’, there exists a ‘leaky distinction ... between animal-human (organism) and machine’.¹⁴¹ The comparison between organism and mechanism has permeable boundaries, as the properties of one concept bleed into the other, until organism can be seen as a kind of mechanism.¹⁴² Where this extends into the realm of intelligent machines, a digital mechanism is seen to be on equivalent terms with a psychological organism, enacting a pernicious ‘erasure of embodiment’ that Hayles traces back to the Turing test.¹⁴³

In this paradigm, human value increases as organism approaches compatibility with mechanism. But seeking to make organism compatible with mechanism devalues organism. Organic compatibility with mechanism can be sought from the human side, within the body, where transhumanists seek to ‘overcome the problems of physical limitations ... and finitude’ through physiological technological enhancements.¹⁴⁴ Or this can be sought in the mind, seen in the ‘postbiological’ predictions of theorists like Moravec, who believes it will be possible in the future for a brain to be uploaded onto a computer and thus ‘rescued from the limitations of a mortal body’. As philosopher and feminist theorist Rosi Braidotti

¹⁴⁰ Daniel Black, *Embodiment and Mechanisation: Reciprocal Understandings of Body and Machine from the Renaissance to the Present* (London: Ashgate Publishing Ltd, 2014), 9; Max Black, *Models and Metaphors*, 3rd ed. (New York: Cornell University Press, 1966); “More About Metaphor,” in *Metaphor and Thought*, ed. Andrew Ortony (Cambridge: Cambridge University Press, 1980); Richard Boyd, “Metaphor and Theory Change: What Is “Metaphor” a Metaphor For?,” *ibid.*, 356-408.

¹⁴¹ Donna Haraway, “A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century,” in *Science Fiction Criticism: An Anthology of Essential Writings*, ed. Rob Latham (Great Britain: Bloomsbury, 2017).

¹⁴² Black, *Embodiment and Mechanisation*, 17. As Black elaborates, this association is a two-way street, with ‘[t]he design of machines and our emotional reactions to them ... be[ing] fundamentally coloured by their association with bodies’. *Ibid.*, 11.

¹⁴³ Hayles, *How We Became Posthuman*, xi.

¹⁴⁴ Graham, *Representations of the Post/Human*, 158. It is important to note here the inherent opposition between transhumanism and posthumanist disability theory, and how they view the material world. The latter accepts the ‘influence and agency’ of matter, acknowledging the role of disability in ‘an ongoing historical process of materiality’s dynamic interactionism’. Comparatively, transhumanism is driven by ‘late eugenical dreams’, representing ‘the most dangerous inclinations within humanism’ in which ‘proponents invest in the capacity of a human-directed *escape* from disability’. David T Mitchell, Susan Antebi, and Sharon L Snyder, *The Matter of Disability: Materiality, Biopolitics, Crip Affect* (Lewisburg: University of Michigan Press, 2019), 3, 4. Emphasis mine.

says: 'For the narcissistic human subject ... it is unthinkable that Life should go on without my being there'. Cognitive scientist Steve Torrance refers to this as '*infocentrism*', and thinks predictions of this sort 'may be considered morally and conceptually objectionable ... not least because of an uncritical worship of technological "progress"'. Graham explains that while these transhuman visions seek to increase human value through the lens of mechanism, this vision of the future is only intended for the privileged few, as 'it does not follow that [transhumanism] is necessarily a universally or unconditionally liberative prospect, immune from material inequalities'. Meanwhile, for those without normative bodies, access to these technologies will continue to be mediated by what Vint refers to as 'body-based discourses of discrimination', as those who are seen as 'inferior or obsolete equipment' must be disposed of 'to make room for the new'.¹⁴⁵

Seeking compatibility between organism and mechanism from the mechanical side, human value can be increased by depicting machines as valorising humans, stressing our ineffable qualities and positioning '[t]he human image [as] the Platonic ideal toward which machines strive'.¹⁴⁶ As already mentioned, this is present in Wolfe's eschatological category, where godlike machines ensure the continued existence of humanity. However, this can also be seen on a personal scale in characters like the android Andrew Martin in Asimov's novelette 'The Bicentennial Man' (1976), as well as in Commander Data in Gene Roddenberry's *Star Trek: The Next Generation* (1987-1994).¹⁴⁷ Data, an android officer aboard the starship *Enterprise*, idolises the humanist values of Starfleet and seeks to become more human. Despite the validity of his personal experience and perspective as an android, Data

¹⁴⁵ Moravec, *Mind Children: The Future of Robot and Human Intelligence*, 1, 5; Rosi Braidotti, "The Politics of "Life Itself" and New Ways of Dying," in *New Materialisms: Ontology, Agency, and Politics*, ed. Diana Coole and Samantha L Frost (Durham: Duke University Press, 2010), 212; Steve Torrance, "Machine Ethics and the Idea of a More-Than-Human Moral World," in *Machine Ethics*, ed. Michael Anderson and Susan Leigh Anderson (United Kingdom: Cambridge University Press, 2011), 118, 25; Graham, *Representations of the Post/Human*, 163; Vint, *Bodies of Tomorrow*, 8-9, 177. As genre theorist Daniel Dinello explains, this conception of progress is inherently classist, 'mak[ing] posthuman heaven a matter of consumer preference and sufficient funds, rather than a reward for leading a morally good life'. Daniel Dinello, *Technophobia!* (Austin: University of Texas Press, 2005), 24.

¹⁴⁶ Wolfe, *The Known and the Unknown*, 157.

¹⁴⁷ Isaac Asimov, *The Bicentennial Man* (Great Britain: Millennium, 2000); Roddenberry, *Star Trek: The Next Generation*. Asimov's tale was also adapted to the screen in Chris Columbus' 1999 film *Bicentennial Man*, but Sue Short argues that Data is 'a much more faithful screen adaptation' of the character of Andrew Martin, lacking the 'mawkish sentimentality' of Columbus' work. Sue Short, "The Measure of a Man? Asimov's Bicentennial Man, Star Trek's Data, and Being Human," *Extrapolation: A Journal of Science Fiction and Fantasy* 44, no. 2 (2003): 209.

is not content with who he is, instead propping up the humanist anthropocentric view that, as a machine, he has less intrinsic worth than his human betters. But mechanism still remains dominant here — Data's personhood 'seems to be forever conditional', and his status as an object, not an organism, is repeatedly made a point of contention.¹⁴⁸

2.4.3 The mechanistic zero world of the icon of the robot

This mechanistic universe, and the role of the organic within it, form the underlying assumptions of the zero world of the texts used in Wolfe's creation of the icon of the robot. The mechanistic zero world in Wolfe's icon of the robot is reinforced by the symbolic barrier between known and unknown. This barrier is typically breached in the text through the application of *reason*, turning the unknown into the known.¹⁴⁹ But in the case of a mechanistic zero world, this reasoning relies upon the supposition that mechanism is logically superior to organism; and thus humans, the most special organism of all, must assert their dominance over mechanism. This position is established and strengthened in two ways — through the text's connection to the SF mega-text, from which the reader is invited to draw established conclusions; and through SF's subjunctive language, which links SF to real-world science. In the 'narrative commonplaces' of the SF mega-text, mechanistic zero worlds continue to accompany the icon of the robot in contemporary incarnations.¹⁵⁰ For example, Dennis E. Taylor's *We Are Legion (We Are Bob)* (2016), the film *Transcendence* (2014), and the video game *SOMA* (2015) all hinge upon on the possibility that the human brain can be replicated digitally, allowing humans to ascend from the world of meat into a digital heaven.¹⁵¹ According to the expert opinion of Hans Moravec and Ray Kurzweil (and modern proponents of this vision like Elon Musk), this is not only scientifically possible, but

¹⁴⁸ Graham, *Representations of the Post/Human*, 141, 42. Graham notes that the humanist values of *Star Trek* make it the clear conceptual successor to early SF by writers like Asimov and Bradbury. Asimov's legacy is particularly notable in Data, who has a 'positronic brain' just like Asimov's robots. *Ibid.*, 132, 37.

¹⁴⁹ Wolfe, *The Known and the Unknown*, 15.

¹⁵⁰ Attebery, "Science Fictional Parabolas: Jazz, Geometry, and Generation Starships," 14.

¹⁵¹ Dennis E Taylor, *We Are Legion (We Are Bob)* (Newark: Audible Originals, 2016); Wally Pfister, *Transcendence* (United Kingdom: Warner Bros. Pictures, 2014); *SOMA*, Frictional Games, Sweden. While some small concessions are made in these texts to the new corporeal forms these minds are uploaded into, their hard drives/bodies are ultimately ignored or sublimated.

inevitable.¹⁵² As Vint explains, '[t]his is the heritage of Cartesian dualism, a view of self that associates identity with the abstract realm alone' — a view which, like liberal humanism, enshrines the self as separate from the world.¹⁵³ As Hayles points out, these claims of brain uploading are only possible if 'human identity' is reimagined as 'an informational pattern rather than an embodied enaction', a posited equivalence between the organic and the machinic that only functions 'because it is seen from a position formulated precisely so that it will work'.¹⁵⁴ This belief that consciousness is something tangible that can be transferred from one physical state to another with no interruption to subject-position is what George Lakoff and Mark Johnson refer to as 'first-generation cognitive science', which relies upon the Cartesian dualist belief that 'the thinking subject ... [is] ontologically other than matter'.¹⁵⁵ Rejecting the disembodied perspective and embracing the embodied, Lakoff and Johnson have championed 'second-generation cognitive science', which recognises that the phenomenon of consciousness is indissociable from the physical origins of the conscious organism.¹⁵⁶

But while organism and mechanism are not interchangeable, neither are they foes — they have long been co-conspirators in human experience. Organism is already intertwined with mechanism; as Haraway says, 'machines can be prosthetic devices, intimate components, friendly selves. We don't need organic holism to give impermeable wholeness'. The material experience of being human includes our bodies, our tools, and our environment — we are cyborgs, we are posthuman. This position has been explored further by new materialists such as Rosi Braidotti, Jane Bennett, Sara Ahmed, Diana Coole, and Samantha Frost, who marry social science with cognitive science, 'foregrounding material factors and reconfiguring our very understanding of matter' in an effort to unpack the role of the material in the creation of consciousness.¹⁵⁷ In this paradigm, what we consider to be mind is 'shaped by our evolutionary history, bodily make-up, and sensorimotor possibilities

¹⁵² Elon Musk and Neuralink, "An Integrated Brain-Machine Interface Platform with Thousands of Channels," *Journal of Medical Internet Research* 21, no. 10 (2019).

¹⁵³ Vint, *Bodies of Tomorrow*, 6, 178. Vint elaborates on this point, explaining that, like Cartesian dualism, liberal humanism 'produc[es] abjection in its insistence upon individual freedom without any reference to the social structures which interpellate individual subjects with different degrees of freedom'. *Ibid.*, 178.

¹⁵⁴ Hayles, *How We Became Posthuman*, xii, 94.

¹⁵⁵ Lakoff and Johnson, *Philosophy in the Flesh*, 78; Coole and Frost, "Introducing the New Materialisms," 8.

¹⁵⁶ Lakoff and Johnson, *Philosophy in the Flesh*, 78-79.

¹⁵⁷ Haraway, "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century," 325-26; Coole and Frost, "Introducing the New Materialisms," 2.

... arising out of close dialogue with other minds, in intersubjective interactions and cultural practices'.¹⁵⁸ Bennett describes our attempts to separate ourselves from the material world around us as 'a kind of species-narcissism: "life" must remain special — that is, radically other to matter — if we humans are to be able to think of ourselves as the most special of its expressions'.¹⁵⁹ A consequence of this tendency to separate thought from matter is that the things we consider immaterial — 'language, consciousness, subjectivity, agency, mind, soul; also imagination, emotions, values, meaning, and so on' — are valued over the material, the physical, the biological.¹⁶⁰ To value abstract concepts over physical truths, you are required to devalue physical truths, because these abstract concepts only ever have physical homes.

Of course, not all SF is beholden to a mechanistic zero world, or to its humanist values. SF has evolved much over the decades, seen in works like Leckie's Imperial Radch trilogy (of which *Ancillary Justice* is the first novel), which presents a zero world in which the posthuman integration of mechanism and organism does not position one ideologically above the other.¹⁶¹ After '[r]eality let SF down', as Roberts puts it, Golden Age gave way to New Wave SF, which according to author and SF theorist James E. Gunn 'reject[ed] intellectualism as a blind alley', challenging taboos and discarding objectivity in favour of a surreal exploration of subjectivity.¹⁶² Politically-charged SF by Ursula K. Le Guin, Joanna Russ, Marge Piercy, Samuel R. Delany and Octavia E. Butler demonstrated 'a vigorous interest in feminist and racial themes' through the 1960s and into the 70s, paving the way for cyberpunk, 'hard science fiction which recognises the paradigm-shattering role of technology in post-industrial society'.¹⁶³ In the wake of these bursts of innovation, SF has seen a synthesis of these themes, and a breakdown of the boundaries of genre.¹⁶⁴

¹⁵⁸ Karin Kukkonen and Marco Caracciolo, "Introduction: What Is the 'Second Generation'?", *Style* 48, no. 3 (2014): 261-62.

¹⁵⁹

¹⁶⁰ Jane Bennett, "A Vitalist Stopover on the Way to a New Materialism," in *New Materialisms: Ontology, Agency, and Politics*, ed. Diana Coole and Samantha L Frost (Durham: Duke University Press, 2010), 59-60; Diana Coole and Samantha L Frost, "Introducing the New Materialisms," *ibid.*, 1-2.

¹⁶¹ Leckie's work will be unpacked in greater detail in chapter 3, 'Close study of *Ancillary Justice*'.

¹⁶² Roberts, *The History of Science Fiction*, 230; Gunn, *Inside Science Fiction*, 48; Russell Blackford, *Science Fiction and the Moral Imagination: Visions, Minds, Ethics* (eBook: Springer International Publishing, 2017), 33.

¹⁶³ *Science Fiction and the Moral Imagination*, 34; Veronica Hollinger, "Cybernetic Deconstructions: Cyberpunk and Postmodernism," in *Science Fiction Criticism: An Anthology of Essential Writings*, ed. Rob Latham (Great Britain: Bloomsbury, 2017), 49.

¹⁶⁴ Gunn, *Inside Science Fiction*, 228-29. For Wolfe's discussion on how the genre boundaries have become blurred, see Gary K Wolfe, ed. *Evaporating Genres: Essays on Fantastic Literature* (Middletown: Wesleyan University Press, 2011).

Furthermore, the scientific possibilities that the subjunctive language of SF links to do not need to be unimpeachable for SF to be considered valid. SF only wears the guise of science, operating not within it but *alongside* it, granting it a freedom from accountability that leads to the creation of new ideas.¹⁶⁵ As described by Wolfe, SF explores ‘the mythical aspects of ... scientific reasoning’, applying not verified scientific theories, but a belief in the *power* of those theories, which is reflective of modern culture. In an analysis of the role SF plays in modern mythmaking, SF scholar Tatiana Chernyshova explains that ‘modern myth creation does not precede science, but follows behind, and its myths are built on scientific results’.¹⁶⁶ But these are not separate practices — SF depictions impact real-world science, just as real-world science impacts SF.¹⁶⁷ Pointing out the interconnected nature of science and science fiction, Hayles says ‘culture circulates through science no less than science circulates through culture. The heart that keeps this circulatory system flowing is narrative’. Thus while it would be incorrect to call SF ‘proto-science ... [anticipating] science on the road to truth’, Chernyshova states that SF and its content does help establish ‘a certain kind of precedence’.¹⁶⁸ For example, in a 2019 U.S. Army report titled ‘Cyborg Soldiers 2050: Human/Machine Fusion and the Implications for the Future of the DOD’, fiction is identified as the key cause of negative public perceptions surrounding the mechanical augmentation of soldiers.¹⁶⁹ SF, as a kind of modern myth, has the power to slip the bounds of fiction and become ‘the basis for programs of action’.¹⁷⁰ While Suvin assures us that ‘SF should not be treated as a prophet’,¹⁷¹ the cultural impact of SF’s creations remains ever present.

¹⁶⁵ Csicsery-Ronay Jr, *The Seven Beauties of Science Fiction*, 140.

¹⁶⁶ Wolfe, *The Known and the Unknown*, 5; Tatiana Chernyshova, “Science Fiction and Myth Creation in Our Age,” *Science Fiction Studies* 31, no. 3 (2004): 353.

¹⁶⁷ One example is the AI, HAL 9000, in Stanley Kubrick’s *2001: A Space Odyssey* (1968). Robotist Rodney Brooks was a teenager when he first saw *2001*, and considers it a life changing experience — despite HAL’s psychological instability, ‘HAL was an artificial intelligence that could interact with people as one of them, using the same modalities that people used interact with each other’. Brooks notes that in the year 2000, thirty-two years after release of Kubrick’s film, Cynthia Breazeal ‘delivered on the promise of HAL’ in the creation of her interactive robot Kismet. Kubrick, “2001.”; Rodney A Brooks, *Flesh and Machines: How Robots Will Change Us* (New York: Vintage Books, 2003), 63, 64.

¹⁶⁸ Hayles, *How We Became Posthuman*, 21; Chernyshova, “Science Fiction and Myth Creation in Our Age,” 353.

¹⁶⁹ Peter Emanuel et al., “Cyborg Soldier 2050: Human/Machine Fusion and the Implications for the Future of the Dod,” (Aberdeen: U.S. Army Combat Capabilities Development Command Chemical Biological Center, 2019), vi-vii.

¹⁷⁰ Wolfe, *The Known and the Unknown*, 3.

¹⁷¹ Suvin, *Metamorphoses of Science Fiction*, 28.

Thus it remains fruitful to continue interrogating how we conceive of anthropoidal automata, to continue understanding the parameters of our 'postmodern condition', to continue reassessing 'the ways in which we and our technologies "interface" to produce what has become a *mutual* evolution'.¹⁷² These fears that SF expresses about the relationship between organism and mechanism are not new. As LaGrandeur's research into the history of intelligent networks shows, humanity's fear of its servile constructions can be traced all the way back to Aristotle, including anxieties about a posthuman dissolution of boundaries, and anxieties about a loss of control.¹⁷³ SF may show the present through the lens of the future, but SF about anthropoidal automata recapitulates pre-modern anxieties about the servants we create, both machinic and anthropomorphic. The icon of the robot signals this history through its resonance with the SF mega-text, forming an intertextual conduit between the reader and familiar depictions of both SF and real-world anthropoidal automata.

This thesis proposes a method of critical examination of anthropoidal automata that, through a granular analysis of machinic and anthropomorphic qualities, ensures that our familiarity with the icon of the robot does not recapitulate the values of a mechanistic universe. Robots inhabit the uneasy space between tool and servant, between thing and person, with allegorical properties that are both machinic and anthropomorphic. By unpacking these properties individually, multivalent readings can be uncovered, exposing fresh unknowns lurking beyond the known. The following close studies, chapter 3, 'Close study of *Ancillary Justice*' and chapter 5, 'Close study of *Paper Minds*', will unpack these machinic and anthropomorphic aspects. Within the machinic, the mechanistic zero world can be seen in the labour and the logic of anthropoidal automata; within the anthropomorphic, it can be seen in how anthropoidal automata are othered (whether friendly or unfriendly), and in how we treat bodies. (Notably, this thesis rejects the proposed psychic powers of humanity in Wolfe's anthropocentric category, instead focusing on Wolfe's assessment of the robotic capability to 'independently imitate' and 'supersede' humanity.¹⁷⁴) Neither axis is exclusive; anthropoidal automata are, by their very nature, both tools and people. By reading depictions of anthropoidal automata along machinic and/or

¹⁷² Hollinger, "Cybernetic Deconstructions: Cyberpunk and Postmodernism," 56.

¹⁷³ LaGrandeur, *Androids and Intelligent Networks in Early Modern Literature and Culture*, 169, 77.

¹⁷⁴ Wolfe, *The Known and the Unknown*, 154.

anthropomorphic lines, their relationship to humanity (both inside and outside the text) can be fruitfully interrogated.

3. Close study of *Ancillary Justice*

In this chapter I conduct a brief close study of Ann Leckie's *Ancillary Justice* (2013), demonstrating the readings that are made possible by seeking Wolfe's icon of the robot in SF that rejects a mechanistic universe. *Ancillary Justice* evokes the icon of the robot through its use of familiar AI tropes, such as the digital replicability of mind; but by exploring the consequences of stifling individuality within a homogeneous system, Leckie's work undermines the preferencing of mechanism over organism that is at the core of the mechanistic universe. Focusing on the anthropomorphic aspects of the text, this close reading of Leckie's work analyses individuality in homogeneity through an analysis of the embodiment and neurodivergence of Breq, the book's unique AI protagonist. The approach taken in this close study is then applied in the following chapter to my own manuscript, *Paper Minds*, which also questions the values of a mechanistic universe through its depictions of embodiment and neurodivergence.

Ancillary Justice is set in the far-flung future, where many disparate planetary human cultures have been 'annexed' — which is to say, forcefully colonised — by the Radch, a technologically superior human empire. What has made the Radchaaai unstoppable in their centuries of conquest is their use of 'ancillaries' (or 'corpse soldiers'), humans whose minds have been permanently replaced with that of a military ship's AI.¹⁷⁵ Stronger and faster than humans, and equipped with armour that is almost impenetrable, ancillaries represent an unstoppable colonising force; but they also crew the ship they are a part of, segments of a singular servile consciousness that is subservient to the ship's human officers. Like Čapek's Robots and Philip K Dick's andys, ancillaries are outwardly organic with an inner core of artificiality, allowing them to both draw on and contribute to the icon of the robot.¹⁷⁶

¹⁷⁵ Leckie, *Ancillary Justice*, 22.

¹⁷⁶ Čapek, "R.U.R."; Dick, *Do Androids Dream?* Other notable texts with anthropoidal automata that can pass for human include *A.I. Artificial Intelligence* (2001), *Battlestar Galactica* (2004-2009), *Westworld* (both the 1973 film and the TV show from 2016 – present), *Humans* (2015-2018), *Nier: Automata* (2017), and *Detroit: Become Human* (2018). Stephen Spielberg, *A.I. Artificial Intelligence* (United States of America: Warner Bros. & DreamWorks, 2001), DVD; Ronald D Moore, *Battlestar Galactica* (NBCUniversal Television Distribution, 2004-2009); Michael Crichton, *Westworld* (Metro-Goldwyn-Mayer, 1973); Nolan and Joy, *Westworld*; Vincent and Brackley, *Humans*; *Nier: Automata*; *Detroit: Become Human*.

Thematically, *Ancillary Justice* is about systemic individuality in a world of replication. As human bodies inhabited by the mind of a larger machine, ancillaries exist on the human/machine boundary, evincing the tension of attempting to establish human dominion within a mechanistic universe. Programmed to serve their Radchaai masters, AIs and their ancillaries represent the anthropocentric quest for dominion over machines; but as human bodies enslaved to an AI, ancillaries demonstrate the cost of human identity in forcing organism to be compatible with mechanism. Furthermore, similar cognitive technology is also used to extend the consciousness of the Lord of the Radch, Anaander Mianaai, whose mind is networked across a cadre of clones. Here, a version of the transhumanist dream of immortality is achieved, but only for the single most elite individual.

But the homogeneity this replication of mind implies is not just limited to Radchaai corpse soldiers and Radchaai leadership. It is also echoed by the Radchaai themselves, whose violent colonial civilisation homogenises culture, gender, and identity. The Radchaai word for ‘citizen’ is literally ‘Radchaai’, a linguistic twist that places any individual not subsumed into the Radch outside of citizenry, stripping them of basic human rights. The Radchaai also purport to only have one gender: she/her. However, as historian Melody Watson points out, Leckie does introduce a second gender: ‘it’, the denigratory pronoun used by the Radchaai when describing AIs and their ancillaries.¹⁷⁷

By exploring systemic individuality in this homogenised empire, *Ancillary Justice* provides fertile ground for asking questions about how the icon of the robot can both

¹⁷⁷ Leckie, *Ancillary Justice*, 17-18, 3; Melody Watson, “Ancillary Pronouns: (Trans)Gendering the ‘Imperial Radch’ Trilogy,” (2017), <http://strangehorizons.com/non-fiction/articles/ancillary-pronouns-transgendering-the-imperial-radch-trilogy/>. Writing about *Ancillary Justice*, historian Alex Dally MacFarlane posits that ‘[t]he apparent purpose of using “she” ... is to question and remove assumptions about the gender of the Radch characters’; but points out that ‘[u]sing “she”, a gendered pronoun, inadvertently genders them all’. For MacFarlane, Radchaai non-binary culture in *Ancillary Justice* has strengths and weaknesses. On the one hand, it ‘normalises non-gendered people and doesn’t present a narrative in which they are exceptional, strange or a source of curiosity’. On the other hand, the weakness of this approach is that, in the real world, ‘[n]on-gendered people are not a science fictional concept’, and there are already non-binary pronouns that are separated from the semiotic baggage of binary gender. Alex Dally MacFarlane, “Post-Binary Gender in SF: *Ancillary Justice* by Ann Leckie,” (2014), <http://www.tor.com/2014/02/18/post-binary-gender-in-sf-ancillary-justice-by-ann-leckie/>. Watson argues that the ‘gendered connotations’ of referring to a person as an ‘it’ are unavoidable: ‘In both English and Radchaai, it is mostly used to refer to inanimate objects and non-human entities. When used to describe a person, though, it is a hateful act: transgender people are too often described as *it* by those who despise them’. This is a denigratory pronoun, ‘an insult’ which excludes AIs — which are demonstrably thinking, feeling entities — from the Radchaai concept of personhood. Watson, “Ancillary Pronouns”.

reinforce and question problematic narratives about the nature of humanity. In Wolfe's icons, the known (such as the robot) gives way to an unknown to be explored (the consequences of using robots). The act of transforming 'the unknown into the known' is historically achieved 'by breaching a symbolic barrier that separates the two'.¹⁷⁸ In Leckie's novel, the known is AI technology, as well as cognitive implants that enable the AI control of human bodies and the networked consciousness of Anaander Mianaai. The unknown consequence of this replication is that variance in the replicated mind is inevitable, as the physical medium housing the copied consciousness is an integral part of that consciousness. This breach is achieved in the text when it is revealed that Anaander Mianaai's consciousnesses are not perfect replicas; a realisation which is mirrored in One Esk, who has mentally diverged from *Justice of Toren*.¹⁷⁹ This demonstrates that minds are not purely abstract, as they would be in a mechanistic zero world. They are embodied. The machinic process of replicating consciousness is therefore variable, messy, and inconsistent — properties that in a mechanistic zero world are aligned with organism, not mechanism. This discovery of this unknown in *Ancillary Justice* shows that its zero world is a non-mechanistic one. This is further supported in the text by its validation of neurodivergence, critiquing prescriptive definitions of personhood that seek to discard the variable, the messy, and inconsistent. This reading of Leckie demonstrates how SF about AI can evoke the familiar aspects of the icon of the robot while also rejecting the philosophical baggage of a mechanistic universe.

3.1 Summary of *Ancillary Justice*

I chose *Ancillary Justice* for this close study because, as a contemporary work of space opera, it bridges the present with the Golden Age SF of the past. An example of the 'ur-form' of SF is that of the fantastic journey through space and/or time, *Ancillary Justice* represents the 'fascination with the outer reaches of imaginative possibility' of Golden Age SF that subsequent stories about new technologies have ultimately branched from.¹⁸⁰ *Ancillary*

¹⁷⁸ Wolfe, *The Known and the Unknown*, 15.

¹⁷⁹ Leckie, *Ancillary Justice*, 204, 07-08.

¹⁸⁰ Roberts, *The History of Science Fiction*, vii, viii.

Justice pushes the boundaries of familiar technologies — AI and mind-uploading, both of which typically signify a mechanistic universe — and reveals their consequences in a non-mechanistic universe. The context of this exploration is the Radchaai empire, which through its violent colonisation and cultural homogenisation also attempts to copy its abstract ideology onto messy embodied reality.

The setting for *Ancillary Justice* is the vast spacefaring empire of the Radch, which encompasses hundreds of planets across multiple systems. The Radchaai empire is made possible through two technological innovations. Firstly, travel through ‘gate space’, a lightless void that exists separate to the known universe, is used to circumvent long distances. Secondly, the Radchaai have mastered several forms of cognitive technology, including both artificial intelligence and cognitive implants for humans. These technological marvels find their overlap in the Radchaai spaceship. Radchaai ships can generate their own gates, travelling through gate space while safely surrounded ‘in a bubble of normal space’; and Radchaai ships (and space stations) contain AI cores, the brain for the body of the vessel. AIs are programmed to care about their human occupants, to be faithful to the core ideals of the Radch. These interconnected ideals are ‘justice’, ‘propriety’, and ‘benefit’, which are drawn from the core teachings of Amaat, the Radchaai religion. The Lord of the Radch, Anaander Mianaai — the antagonist of Leckie’s novel — is believed by the Radchaai to embody this trefoil ideology. But Anaander’s hold over the Radch is not just ideological. It is personal and physical. Mianaai uses clones of herself to maintain a constant, localised physical presence across the vast spread of Radch space. Each clone of Anaander is connected via brain implants to the other, with the intention of forming if not a singular cohesive consciousness, then a singular cohesive identity.¹⁸¹

However, despite Anaander Mianaai’s efforts to replicate herself, she cannot escape systemic individuality. While futurists like Hans Moravec and Ray Kurzweil believe that the mind is something that can be ‘rescued from the limitations of a mortal body’, Damasio points out that ‘[t]he human brain and the rest of the body constitute an indissociable

¹⁸¹ Leckie, *Ancillary Justice*, 217, 42-43, 95. Combined with gate space, this cognitive technology linking the minds of each instance of Anaander Mianaai is what allows close imperial control to be maintained across the far-reaching entirety of the Radchaai empire, providing ‘the power of a physical imperial presence, in both its aggressive and its passive forms’ while still affording the text an interrogation of empire on comprehensible, contemporary scale. Kerslake, *Science Fiction and Empire*, 66.

organism', in which the mind exists as part of a feedback loop organism and environment. Summarising those who argue against disembodied intelligence, Graham explains that '[h]uman intelligence ... may be psychosomatic'.¹⁸² Thus while Mianaai's consciousness exists in aggregate across her clones, this does not guarantee homogeneity. Each clone is unique, in form and in context.¹⁸³ This hidden truth comes to the fore when the Lord of the Radch disagrees with herself over her genocide of the Garseddai, a people who came the closest to successfully opposing their annexation at the hands of the Radch.¹⁸⁴ This disagreement over the annihilation of Garsedd fractures the identity of Anaander Mianaai into two known camps: '[t]he first Anaander fragment is callous and power hungry, while the second shows kindness and responsibility for the wellbeing of others'.¹⁸⁵ Initially acting against herself in secret, this division within the Lord of the Radch becomes public at the end of the novel, destabilising the empire as Anaander Mianaai's wages a war upon herself.

The same cognitive technology that grants Anaander Mianaai multiple bodies is what underpins the creation of ancillaries, the Radchaai's most valuable asset in its centuries-long history of violent annexation of other worlds. For annexations, Radchaai military ships are crewed by ancillaries, also known as 'corpse soldiers': human bodies appropriated from peoples in resisting cultures, forcibly injected with implants and enslaved to a Radchaai ship's AI. The activation of these cognitive implants within a person functionally kills that individual, granting the connected AI not only complete control over the body, but an extension of that AI's identity as well. In the same way that the identity of each Anaander Mianaai body *is* Anaander Mianaai, each ancillary belonging to a ship's AI *is* the ship's AI, acting as its 'appendages'.¹⁸⁶

It is within this destabilised boundary of identity that we find the protagonist, Breq. Breq is an ancillary without a ship. In past events recounted in *Ancillary Justice*, we discover that Breq was once the ancillary One Esk Nineteen, a segment of Esk decade, which

¹⁸² Moravec, *Mind Children: The Future of Robot and Human Intelligence*, 5; Antonio Damasio, *Descartes' Error: Emotion, Reason, and the Human Brain* (United States of America: Penguin, 2005), xx-xxi; Graham, *Representations of the Post/Human*, 128.

¹⁸³ This is impacted further by the reality of wirelessly connecting clones across large distances. Even with the relative shortening of distance that gate space provides, *Ancillary Sword* (2014) reveals that for the aggregate consciousness of Anaander Mianaai, 'it could take weeks for a thought to reach all the way across herself'. Leckie, *Ancillary Sword*, 107.

¹⁸⁴ *Ancillary Justice*, 35.

¹⁸⁵ Blackford, *Science Fiction and the Moral Imagination*, 190.

¹⁸⁶ Leckie, *Ancillary Justice*, 77, 136.

belonged to the troop-carrier *Justice of Toren*.¹⁸⁷ While individual ancillaries (or ‘segments’) could be replaced or frozen, *Justice of Toren* and its ancillaries were considered homogenous parts of the same entity — to speak with its ancillaries was to speak directly with *Justice of Toren* itself.¹⁸⁸ When *Justice of Toren* was destroyed by the ‘bad’ Anaander Mianaai, One Esk Nineteen was the only surviving ancillary, the last remaining segment of a unified, multi-bodied whole. This would be trauma enough, but Anaander Mianaai also executed Lieutenant Awn, an officer with whom *Justice of Toren* was in love.¹⁸⁹ After a long period of grief and recovery, One Esk Nineteen returns to the Radch, pretending to be human, calling herself Breq Ghaiaf of the Gerentate (a distant, lesser-known culture). When *Ancillary Justice* begins, Breq is seeking revenge against Anaander Mianaai; but through her friendship with Seivarden, an old crew member she feels compelled to rescue, Breq finds herself rescuing others.¹⁹⁰ Through Breq, the text explores the unique perspective of someone whose consciousness has lived within and understood the feel of many bodies, but now is trapped within the one. Breq’s perspective and motives provide a unique point of view, as she struggles to navigate her individuality while pretending to be human, while also showing great sympathy for the similarly marginalised.

The advanced technologies in *Ancillary Justice* link the text to the SF mega-text. Both gate space and AI are technological marvels that can be traced back to the origins of space opera, including ‘space-voyaging analogues to Earth-bound naval fleets ... contact with alien species, interstellar war ... and various kinds of super-science’. Many of these tropes remain signifiers for space opera in the broader genre of SF, particularly in modern space opera, where a use of ‘foregrounded intertextuality’ demonstrates a ‘self-reflexive

¹⁸⁷ A decade is a troop division, of which there are ten on *Justice of Toren* (and on other Justices), each with its own deck. One Esk is an ancillary unit of twenty segments belonging to Esk decade, with each segment given a numeric designation, hence One Esk Nineteen. There can be multiple ancillary units within a decade, such as Two Esk, which in the story of Breq’s origin attends to the human officers of Esk decade on *Justice of Toren* while in orbit around Shis’urna. Ibid., 167-68.

¹⁸⁸ There are three kinds of Radchaai military ship, each with their own substantial crew: Mercies, smaller ships designed for patrols or transporting supplies; Justices, the largest and slowest, which act as large troop-carriers; and Swords, the fastest and most heavily armed of the three. Ibid., 10.

¹⁸⁹ Ibid., 247. AIs are programmed to care for Radchaai citizens, and ships in particular are programmed to care deeply for their officers. Dramas in Radchaai cultures recount tales of ships who ‘went mad’ after losing the captains they had fallen in love with. Ibid., 136.

¹⁹⁰ Ibid., 256. Over the course of the Imperial Radch trilogy, ‘Breq deals—Solomon-like—with large and small injustices’, standing up for minorities of both culture and class that have been denied opportunities promised by the Radchaai. This culminates in a successful attempt to barter for the freedom and personhood of all AIs. Blackford, *Science Fiction and the Moral Imagination*, 190.

confidence'.¹⁹¹ This modern intertextuality can be seen in Leckie's work in the use of artificial intelligence used to create sapient spacecraft, as well as shortened space travel via 'gate space', a variant of hyperspace. A prominent example of sapient spacecraft in SF is HAL 9000 from Kubrick's film and Clarke's novelisation *2001: A Space Odyssey* (1968).¹⁹² In SF literature, sapient ships for whom mind and body are intertwined include the generation ship in Kim Stanley Robinson's *Aurora* (2015), the brainships of Anne McCaffrey's Brain & Brawn Ship series (1969 – 1997), and the Minds of Iain M Banks' Culture series (1987 – 2012).¹⁹³ The use of mentally-erased human bodies to extend the physical presence of an AI is less common, but has been seen in the 'cybrids' of Dan Simmons' Hyperion Cantos (1989 – 1997), Aj in Ian McDonald's *River of Gods* (2004), and Agent Smith in the Wachowski sisters' *The Matrix Reloaded* (2003).¹⁹⁴ While this technological colonisation of the human body has its roots in cyberpunk, a subgenre fascinated with 'the potential interconnections between the human and the technological', it is also an example of modern space opera, wherein species are introduced that question traditional expressions of life, 'embrac[ing] extreme variety' in both form and origin, and sometimes paired with 'a hard-edged cynicism ... or even grave pessimism about humanity's future'.¹⁹⁵ As with all SF icons, the benefit of using concepts with assumed familiarity is that they can be introduced with little comment, allowing more space for the author to expand upon the consequences of these technologies within the new work's unique context.

The known can be seen most prominently in Leckie's use of ancillaries, which are mechanically-appropriated human bodies that evoke the icon of the robot. Ancillaries, an example of the 'mega-text of SF icons and tropes ... metamorphos[ing] over time into something darker, harder, and weirder', present with many mechanistic traits, from

¹⁹¹ *Science Fiction and the Moral Imagination*, 26-27; Bould and Vint, *The Routledge Concise History of Science Fiction*, 181.

¹⁹² Kubrick, "2001."; Arthur C Clarke, *2001: A Space Odyssey* (United Kingdom: Hutchinson, 1968).

¹⁹³ Kim Stanley Robinson, *Aurora* (London: Hachette Audio UK, 2015). McCaffrey's Brain & Brawn Ship series, which ran for seven books between 1969 and 1997 (in collaboration with other authors), began with *The Ship Who Sang* (1969). Anne McCaffrey, *The Ship Who Sang* (London: Transworld, 2012). Iain Banks' Culture series, which ran for ten books released between 1987 and 2010, began with *Consider Phlebas* (1987). Iain M Banks, *Consider Phlebas* (New York: Hachette Digital, 2010).

¹⁹⁴ Simmons, *Hyperion*; *The Fall of Hyperion*; *Endymion*; *The Rise of Endymion*; McDonald, *River of Gods*; Lana Wachowski and Lilly Wachowski, *The Matrix Reloaded* (Australia & United States: Warner Bros. & Roadshow Entertainment, 2003), Netflix.

¹⁹⁵ Hollinger, "Cybernetic Deconstructions: Cyberpunk and Postmodernism," 45; Gary Westfahl, "Space Opera," in *The Cambridge Companion to Science Fiction*, ed. Edward James and Farah Mendelsohn (Cambridge: Cambridge University Press, 2012), 206.

inhuman speed and strength, to flattened affect.¹⁹⁶ Appropriated hive-mind workers, ancillaries are an example of the ‘labour force [of] the posthuman urban’ which, by problematising the human/machine divide, are considered ‘objects of revulsion and general scorn’.¹⁹⁷ Despite their biological nature, ancillaries evince many of the same social issues posed by robots, walking the line between biological and mechanical in manner similar to Dick’s andys in *Do Androids Dream?* (1968) and the replicants of Ridley Scott’s *Blade Runner* (1992) and Denis Villeneuve’s *Blade Runner 2049* (2017).¹⁹⁸ Resembling a ‘faceless, nameless mass of robots’, ancillaries are an example of Despina Kakoudaki’s ‘silent abject slave’, further evoking chattel slavery through the nonconsensual procurement of ancillary bodies from colonised populations. This is made more poignant by the fact that ancillaries are a workforce ‘who does not need to be seen or [recognised]’, representing the homogenisation of multiple entities into a large workforce that is considered to have a singular identity.¹⁹⁹ The Radchaai normalisation of ancillaries is contrasted with the reactions of non-Radchaai, who consider ancillaries barbaric, strange, and representative of the hegemonic influence of Radchaai colonialisation.²⁰⁰ Depictions of marginalisation of this sort have significant precedent in space opera, a sub-genre steeped in fantasies of colonisation. However, one key improvement to the genre has been an increased awareness of its political context. In the midst of its own multimodal renaissance in the 1980s and 1990s, space opera began to critique the colonial ethos of early science fiction.²⁰¹ Writer and genre critic Russell Blackford aligns Leckie’s work with this latest wave of evolution, which places greater emphasis on

¹⁹⁶ Blackford, *Science Fiction and the Moral Imagination*, 43; Leckie, *Ancillary Justice*, 3, 6. Ancillaries appear particularly mechanistic when they are deployed for annexations, as they ‘often [wear] nothing but a force shield generated by an implant in each body, rank on rank of featureless soldiers that might have been poured from mercury’. *Ibid.*, 26.

¹⁹⁷ Bodhisattva Chattopadhyay, “The Urban in Posthuman Science Fiction,” in *Defining the Urban: Interdisciplinary and Professional Perspectives*, ed. Deljana Iossifova, Christopher N H Doll, and Alexandros Gasparatos (Florence: Taylor & Francis Group, 2018), 272.

¹⁹⁸ Dick, *Do Androids Dream?*; Ridley Scott, *Blade Runner: Director’s Cut* (United States: Warner Bros., 1991), DVD; Denis Villeneuve, *Blade Runner 2049* (United States: Warner Bros. Pictures & Sony Pictures Releasing, 2017), Cinema.

¹⁹⁹ Kakoudaki, *Anatomy of a Robot*, 132.

²⁰⁰ Leckie, *Ancillary Justice*, 17-19.

²⁰¹ Kerslake, *Science Fiction and Empire*, 75-76; Bould and Vint, *The Routledge Concise History of Science Fiction*, 165.

both ‘intellectual speculation’ and ‘unashamed romance’, and contains prominent post-cyberpunk traits endemic of cyberpunk’s infiltration of wider contemporary culture.²⁰²

3.2 Systemic individuality in *Ancillary Justice*

One of the core beliefs undergirding the mechanistic universe is that consciousness is abstract, separable from embodied reality, and perfectly replicable. At first glance, this belief appears to be borne out in *Ancillary Justice*. In Leckie’s novel, the cognitive technology that transmits data between brains and links them together into a coherent mind is what enables the creation of AIs, ancillaries, and the multi-bodied immortality of Anaander Mianaai. However, this known element of replicable consciousness in the text is ultimately destabilised by the discovery of the unknown: that consciousness is not purely abstract, and that each instance of a replicated consciousness is cocreated with the body in which it lives. In Leckie’s work, the thoughts of AI and of the Lord of Radch are transmissible across multiple forms, but the physical context of the forms themselves cannot be dismissed.²⁰³ Thus the dream of programmatic homogeneity is questioned in *Ancillary Justice*. Here, the known — familiar AI tropes of systematic discrimination and abstract replication — is forced to give way to the unknown — systemic individuality and embodied uniqueness. This truth is best demonstrated by the protagonist of *Ancillary Justice*, Breq.

Breq has a complicated relationship with both Radchaai citizenry and gender. Breq is a multitudinous entity — she is the last remnant of a dead AI that was once distributed cognitively across hundreds of bodies. Now, inhabiting a singular human body, she strives to pass as human. Breq claims to be from the Gerentate, a distant non-Radchaai culture, attempting to mask both her lack of registered citizenry and her ancillary behaviours.

²⁰² Blackford, *Science Fiction and the Moral Imagination*, 38-39. This new wave of space opera has been described as ‘postmodern space opera’, a moniker which SF scholar Gary Westfahl does not agree with, seeing ‘postmodern’ as being ‘a fashionable synonym for “sophisticated”’. Westfahl, “Space Opera,” 206.

²⁰³ A distinction needs to be made here between the Lord the Radch and other humans. As *Justice of Toren* explains in *Ancillary Justice*, AIs cannot read minds. Ancillaries provide an organic medium through which an AI can think, but the human brain is not wholly computable, such as in works like Gibson’s *Neuromancer*. Anaander Mianaai might seem to counter this, suggesting through her networked mind that the human mind *can* be computed. But as Breq points out later in *Ancillary Mercy*, this has fundamentally changed her; the Lord of the Radch is not human anymore, and has not been for some time. Networking cognitive implants between her clones has not perfectly translated Mianaai’s organic human mind into a digital one, and has instead created an aggregate entity that is something else entirely. Leckie, *Ancillary Mercy*, 305.

However, her inherently Radchaai perspective continues to signify her cultural origins, particularly when attempting to identify non-Radchaai gender norms.²⁰⁴ Before she was Breq, when she was an AI, an ancillary, ‘materially manifest as the troop carrier ship *Justice of Toren*’, Breq was an *it*, a piece of equipment.²⁰⁵ Looking to appear human, Breq now takes on culturally-specific pronouns, such as in the Radchaai language where she accepts being referred to by she/her. But Breq also asserts her ancillary nature, her *it*-ness, as a crucial part of who she is.²⁰⁶

As established in Wolfe’s diagram, the anthropomorphic category of the icon of the robot describes entities designed to extend or replace human function.²⁰⁷ Ancillaries, created to replace soldiers, replace human function; and Breq, an ancillary secretly posing as a human, might evoke the fear of mechanism replacing organism entirely. But Breq’s impersonation of humanity represents a means to an end, an act of masking that allows her to operate in a world that considers her a non-person. Rather than seeking to be seen as human, Breq ultimately maintains her ancillary identity, staying true to her neurodivergent manner. Breq’s unique embodiment — a powerful AI constrained to a singular, vulnerable human body — is also validated by the text, acknowledging the unique role each body plays in the creation of each unique mind. The other section of Wolfe’s diagram of the icon of the robot that this thesis concerns itself with, the machinic, has been omitted from this close study for brevity. But AIs and their ancillaries in *Ancillary Justice* have many notable machinic qualities, each of which is worthy of further study.²⁰⁸ While machinic elements

²⁰⁴ *Ancillary Justice*, 105, 04.

²⁰⁵ Carol A Taylor, “Edu-Crafting a Cacophonous Ecology: Posthumanist Research Practices for Education,” in *Posthuman Research Practices in Education*, ed. Carol A Taylor and Christina Hughes (London: Palgrave Macmillan, 2016), 11. As mentioned earlier in this chapter, Watson points out that the pronoun ‘it’ used for ancillaries betrays a second, lesser-status gender in what is supposedly the mono-gendered Radchaai culture. Watson, “Ancillary Pronouns”.

²⁰⁶ Leckie, *Ancillary Justice*, 135.

²⁰⁷ Wolfe, *The Known and the Unknown*, 154-55.

²⁰⁸ The artificial intelligences created by the Radch are not described in any formal computational or engineering terms; the only clue to their origin is the offhand comment that they are ‘grown’, which suggests an organic element. But Leckie’s AIs still contain machinic elements — they are shown to obey programmatic rules, known as ‘accesses’. But unlike Asimov’s Three Laws, these rules are not presented to the reader as an inflexible sequence of logic. This can be seen in how ships serve their crew — they are programmed to obey all orders, but ships develop favourites, and this affects how these orders are interpreted or pre-empted. Furthermore, as Breq explains, emotion is a key feature of AI cognition, as it gives weight to choices that, if left to pure logic or statistics, would require too much deliberation between close variables. Leckie, *Ancillary Justice*, 56, 92, 224, 88.

such as these are worthy of further analysis, this thesis focuses on the anthropomorphic aspects of Breq, which I argue are more prominent.

3.2.1 Bodies as othered machines: Breq's embodiment

Ancillary Justice is a work of contemporary SF that not only respects embodiment, but also uses embodied truths to argue against the possibility of perfect abstract replication, which is a core tenet of the mechanistic universe within the icon of the robot.²⁰⁹ In a mechanistic universe, consciousness can be wholly reduced to information, and is thus purely abstract and replicable. As explained in chapter 2, 'The icon of the robot', the 'concept of self as disembodied' is core to Western culture, and 'is linked to liberal humanist notions of identity, notions which rely on an abstract version of human sameness'.²¹⁰ This position, named 'first-generation cognitive science' by Lakoff and Johnson, underpins the belief that it will be possible to create a disembodied AI — an artificial intelligence whose cognition will be separable from the context of its body. Leckie's novel counters this by exploring the inevitable impact of embodiment when conscious entities are replicated across multiple bodies. First-generation cognitive science would have you believe that the mind is information, purely abstract, and is thus infinitely replicable. Second-generation cognitive science shows that nothing abstract exists free of its physical context.²¹¹

On the surface, ancillary technology is similar to other technology SF that posits the digital portability of mind, seen in AIs in contemporary SF works like AIDAN in Amie Kaufman and Jay Kristoff's novel *Illuminae* (2015), the Cylon-humanoids in the 2003-2012 reboot of *Battlestar Galactica*, and the Geth in BioWare's *Mass Effect* series of video games (2007-2017).²¹² This is the contemporary crux of first-generation cognitive science, the belief

²⁰⁹ Section 3.2.1 of this thesis features modified content from my 2018 conference paper "'At War with Herself': How Ann Leckie's *Ancillary Sword* and *Ancillary Mercy* Dispel the Myth of Disembodied Cognition', as well as my unpublished 2018 journal article, "'At War with Herself': How Ann Leckie's Imperial Radch Trilogy Dispers the Myth of Disembodied Cognition'. The conference paper was presented at the Embodiment in Science Fiction and Fantasy Interdisciplinary Conference on May 18, 2018, at McMaster University, Hamilton, Ontario, Canada. The subsequent journal article was submitted to *Science Fiction Studies* on 14th August, 2018 and was not accepted for publication.

²¹⁰ Vint, *Bodies of Tomorrow*, 6, 10.

²¹¹ Lakoff and Johnson, *Philosophy in the Flesh*, 78-79.

²¹² Amie Kaufman and Jay Kristoff, *Illuminae* (New York: Random House/Listening Library, 2015); Moore, *Battlestar Galactica*; *Mass Effect*, Microsoft Game Studios & Electronic Arts, United States of America; *Mass Effect 2*, Electronic Arts, United States of America; *Mass Effect 3*, Electronic Arts, United States of America.

that ‘the brain [is] the hardware on which the mind’s software [happens] to be running, but the brain-hardware [is] seen as being capable of running any appropriate software’. But Lakoff and Johnson assure us that ‘[t]here is no ... fully autonomous faculty of reason separate from and independent of bodily capacities’. In short, there is no downloadable mind lurking inside your skull. It might feel like we have one because of our rich mental lives; because of the things we can picture, imagine, and recollect. But as neuroscientist Antonio Damasio explains, these mental ‘images’ — which include other senses such as sound and smell — are ‘attempts at replication of patterns that were once experienced ... and although they may appear to be good replicas, they are often inaccurate or incomplete’. There are no ‘hard copies’ of mental images in your brain — at least in the way we conceive of hard copies in the mind-as-machine metaphor.²¹³

In fairness to science, the rationale behind the creation of the mind-as-machine metaphor is sound. In the field of cognitive science, this metaphor has indeed been invaluable, yielding powerful insights about the brain.²¹⁴ But a consequence of this tendency to separate thought from matter is that the things we consider immaterial — ‘language, consciousness, subjectivity, agency, mind, soul; also imagination, emotions, values, meaning, and so on’ — are valued over the material, the physical, the biological.²¹⁵ To value abstract concepts over physical truths, you are required to devalue physical truths; because these abstract concepts only ever have physical homes.

The core theme of systemic individuality in *Ancillary Justice* can be seen in Breq’s unique embodiment, evident both in the present and in her recollections of the past. When

Other works of contemporary SF that feature an AI able to move between multiple physical systems unimpeded include Oshii’s *Ghost in the Shell* (1995), Spike Jonze’s film *Her* (2013), Joss Whedon’s film *Avengers: Age of Ultron* (2015), MidBoss’ video game *2064: Read Only Memories* (2017), and Hello Games’ *No Man’s Sky* (2016). Oshii, *Ghost in the Shell*; Spike Jonze, *Her* (United States: Warner Bros. Pictures, 2013), DVD; Joss Whedon, *Avengers: Age of Ultron* (Marvel Studios, 2015); *2064: Read Only Memories*, MidBoss, PlayStation 4; *No Man’s Sky*, Hello Games, PlayStation 4.

²¹³ Lakoff and Johnson, *Philosophy in the Flesh*, 76, 17; Damasio, *Descartes’ Error: Emotion, Reason, and the Human Brain*, 89, 101, 00.

²¹⁴ As touched up on in section 2.4.2 of chapter 2, metaphors of this type are ‘theory-constitutive metaphors’, and they are ‘an irreplaceable part of the linguistic machinery of a scientific theory ... expressing theoretical claims for which no adequate literal paraphrase is known’. Boyd, “Metaphor and Theory Change: What Is ‘Metaphor’ a Metaphor For?,” 360-61. As a way of thinking about the brain, the mind-as-machine metaphor dovetails with an intuitive understanding of computers, which has allowed for fruitful ideas based upon this intuition. Metaphors of this kind ‘can properly be held to convey, in indispensable fashion, insight into the systems to which they refer’. Max Black, “More About Metaphor,” *ibid.*, 41.

²¹⁵ Coole and Frost, “Introducing the New Materialisms,” 1-2.

Breq was *Justice of Toren*, she was one entity across many bodies — each ancillary that belonged to the ship was addressed as though it *were* the ship, as each ancillary was a replication and thus an extension of the whole. But Esk decade was not perfect replication of *Justice of Toren*. As feminist theorists Diana Coole and Samantha L. Frost explain, material replication of any kind will naturally contain deviations from the pattern, and these deviations can have ‘massive but unanticipated effects’.²¹⁶ Indeed, ‘each ... ancillary [segment] is entirely capable of having its own identity’. This is evident in how Esk decade developed a fondness for singing choral music that was not shared by the rest of the ship. Breq continues to display the same systemic individuality that was evident in Esk decade when it was a part of *Justice of Toren*, seen in her constant humming of this same music, even when she doesn’t realise it.²¹⁷

Breq’s radical change in embodiment — from a ship with many bodies to an individual with one body — is definitional to her psychological make-up. As Damasio explains, ‘[i]f you were to cut all the nerves that bring brain signals to the body proper, your body state would change radically, and so consequently would your mind’.²¹⁸ After the destruction of *Justice of Toren*, it takes Breq almost twenty years to recover from her grief, and to acclimate to having one body. She leverages her quantitative understanding of human psychology to appear neurotypical, her neurodivergence only visible to those savvy enough to see through the performance.²¹⁹ While she has remnants of the ‘tact, courtesy and sensitivity’ of *Justice of Toren*, as well as a preternatural grasp over quick computations, Breq is no longer servile — she is a new person, defined by her new body in its new context.²²⁰ Despite her best efforts, she is frequently unable to contain her anger, losing control of her human composure and dropping into the deadpan monotone of an ancillary.²²¹ Her very existence is comprised of contested boundaries, of ‘human vs. machine, and of course mind

²¹⁶ Ibid., 14.

²¹⁷ Leckie, *Ancillary Justice*, 213, 23, 36.

²¹⁸ Damasio, *Descartes’ Error: Emotion, Reason, and the Human Brain*, 227.

²¹⁹ Leckie, *Ancillary Justice*, 256, 133.

²²⁰ Taylor, “Edu-Crafting a Cacophonous Ecology: Posthumanist Research Practices for Education,” 11; Leckie, *Ancillary Justice*, 196-97.

²²¹ *Ancillary Justice*, 370.

vs. body'.²²² Breq's human body intrudes upon her; she was made to colonise it, and it has now colonised her.

Who Breq is, as a person, is not reducible to a pattern of information. Breq's mind cannot be dissociated from the body she has. Her experience of consciousness cannot be separated from her experience of having a physical form. While the cognitive technology in *Ancillary Justice* allows for consciousness to extend into new bodies in a way that resembles first-generation cognitive science, these copies are never flawless. It is always a new person. An AI in a human body, Breq is described by posthumanist theorist Carol A. Taylor (drawing on Donna Haraway) as being 'more-than-human ... She is the cyborg we (humans) all already are'.²²³ She is not a carbon copy, because carbon copies are impossible. As a kind of AI, she owes her mind to abstract conceptions of programmatic concepts; but she is only ever an individual, embodied person, finding her way in the universe.

When the mind is not seen as unique but replicable, not embodied but transportable, bodies are devalued. And by extension, the minds necessarily within those bodies are devalued. People are devalued. To quote philosopher Richard Menary, 'our cognitive lives are rich and varied and ... simple homogenous explanations do not do justice to the complexity of cognitive phenomena'.²²⁴ Believing in first-generation cognitive science has led to the dream of individuals having their brains removed and frozen, so that they may be scanned and resurrected in the future. But in the light of second-generation cognitive science, this is not an act of technological renaissance. It is a comically expensive way of preserving your remains.²²⁵ Breq demonstrates more than just the embodied nature of mind. She demonstrates the commodification of individuals in a world that treats reason as transcendental, and 'where humans fail to see the inherent tragedy of conscious existence, they feel far less called upon to do something about minimising it, and may have less respect

²²² Meryl Trussler, "The Fantastic Adventures of No-Body: Mechanisms of Cyborg Disembodiment in Five Texts by Women Authors" (Master's Thesis, Lund University, 2014), 53.

²²³ Taylor, "Edu-Crafting a Cacophonous Ecology: Posthumanist Research Practices for Education," 11.

²²⁴ Richard Menary, "Introduction to the Special Issue on 4e Cognition," *Phenomenology and the Cognitive Sciences* 9, no. 4 (2010): 461.

²²⁵ Antonio Regalado, "A Startup Is Pitching a Mind-Uploading Service That Is '100 Percent Fatal'," *MIT Technology Review*, 13 March 2018; Michael Hendricks, "The False Science of Cryonics," *ibid.*, 15 September 2015. SF that reinforces this worldview includes popular SF Netflix television series *Altered Carbon* (2018-2020), based on the novel of the same name by Richard K. Morgan. Laeta Kalogridis, *Altered Carbon* (United States: Netflix, 2018).

for the value of life'.²²⁶ By exploring embodied cognition across a range of physical forms and within a futuristic SF context, Leckie's work refutes the mechanistic universe that historically companies the icon of the robot. This is achieved by acknowledging that our minds are 'shaped by our evolutionary history, bodily make-up, and sensorimotor possibilities ... arising out of close dialogue with other minds, in intersubjective interactions and cultural practices'.²²⁷ *Ancillary Justice* rebels against the cultural belief that abstract simulation is equivalent to physical representation, undermining the dangerous fantasy that the mind matters and the body does not.

3.2.2 Machines as othered people: Breq's personhood

Breq's unique cognition and personhood is at odds with the prescriptive definitions of humanity that are inherent to a mechanistic universe.²²⁸ Breq, the neurodivergent protagonist, is an AI with a naturally flattened affect. Her form is depicted as abject, and she presents with many of the same metaphors used to describe autistic people. But Breq's neurodivergence is not villainised. Rather, her differences prove invaluable, and her perspective, though uncommon, is validated. When seen as a mirror for the human neurodivergent, Breq demonstrates that 'disability [is] a category of human difference that cannot be absorbed into a homogenizing scheme of a people's shared attributes'. In this way, *Ancillary Justice* is an example of a text that invites us to 'reassess our understanding of disability and thus of ourselves'.²²⁹ In concert with Breq's unique embodiment, this validation of neurodivergence disrupts the prescriptive definitions of personhood that underpin a mechanistic universe.

Discrimination against neurodivergent people has a long history. Disseminated through cultural information that is 'almost universally pejorative', disability is labelled as

²²⁶ Damasio, *Descartes' Error: Emotion, Reason, and the Human Brain*, 251.

²²⁷ Kukkonen and Caracciolo, "Introduction: What Is the 'Second Generation'?", 261-62.

²²⁸ Section 3.2.2 contains content from my 2019 article, 'Ethical Depictions of Neurodivergence in SF about AI', with some changes made. Morrison, "Ethical Depictions of Neurodivergence in SF about AI."

²²⁹ David T Mitchell and Sharon L Snyder, *Narrative Prosthesis: Disability and the Dependencies of Discourse, Corporealities: Discourses of Disability* (Ann Arbor: The University of Michigan Press, 2000), 44, 9. (Hereafter referred to as *Narrative Prosthesis*.)

‘pitiful’ and ‘abnormal’.²³⁰ Neurodivergence is no more voluntary/involuntary than neurotypicality, and yet a line continues to be drawn between the two, with neurodivergence positioned as abnormal. But neurodiversity is a normal fact of life, with all people existing on a nuanced spectrum between neurotypical and neurodivergent, constituting what disability scholar Nick Walker describes as ‘a natural and valuable form of human diversity’.²³¹ Nevertheless, misrepresentation continues to contribute to discrimination against neurodivergent people. For example, stories featuring autistic people in particular are rarely about exploring autism from an autistic person’s perspective; instead they invite the non-autistic audience to consider the ways in which they themselves are *not* autistic.²³² This is not to decry all attempts at disability representation — as disability scholars David T. Mitchell and Sharon L. Snyder point out, narrative can act as a ‘mediator between two separate worlds’, fruitfully ‘[m]aking comprehensible that which appears to be inherently unknowable’.²³³

But while SF may be ‘What If literature’, this does not mean that every textual element is questioned; as highlighted by SF writer and theorist Joanna Russ, ‘traditional assumptions ... are nothing more than traditional straitjackets’.²³⁴ It is possible to plant the ‘generating seed’ of innovation into soil that is rich with unquestioned assumptions — in this case, the assumption that those who lack normative emotional affect lack value.²³⁵ This assumption is brought to bear through AIs, whose minds are neither unfathomable nor alien, but rather recognisably neurodivergent. Recognisably human. However, were humanity to create a sapient AI, it is statistically very unlikely that it would think like humans do.²³⁶ SF has a long history of exploring the implications of these potential minds, be they animal, alien, or artificial. But in fiction, as pointed out by Suvin, we ‘can only signify

²³⁰ James I Charlton, *Nothing About Us without Us: Disability Oppression and Empowerment* (Berkeley: University of California Press, 1998), 30.

²³¹ Nick Walker, “Neurodiversity: Some Basic Terms & Definitions,” <http://neurocosmopolitanism.com/neurodiversity-some-basic-terms-definitions/>.

²³² Stuart Murray, “Autism and the Contemporary Sentimental: Fiction and the Narrative Fascination of the Present,” *Literature and Medicine* 25, no. 1 (2006): 28.

²³³ Mitchell and Snyder, *Narrative Prosthesis*, 5–6.

²³⁴ Joanna Russ, “The Image of Women in Science Fiction,” in *Science Fiction Criticism: An Anthology of Essential Writings*, ed. Rob Latham (Great Britain: Bloomsbury, 2017), 200, 08.

²³⁵ Csicsery-Ronay Jr, *The Seven Beauties of Science Fiction*, 50.

²³⁶ As explained by AI theorist Eliezer Yudkowsky, *Homo sapiens* only occupies ‘a tiny little circle ... in one corner’ on the map of *all* potential minds, human or otherwise. Eliezer Yudkowsky, “Artificial Intelligence as a Positive and Negative Factor in Global Risk,” in *Global Catastrophic Risks*, ed. Eliezer Yudkowsky, Nick Bostrom, and Milan M Čirković (Berkeley: Machine Intelligence Research Institute, 2008), 11.

human relationships, given that we cannot — at least so far — imagine other ones'.²³⁷ Even the most alien-minded AI in fiction is anthropomorphic, albeit to a greater or lesser degree. In the case of the lesser degree, we are presented with AIs with neurodivergent characteristics.

Julia Kristeva's notion of 'abjection' is useful in unpacking why neurodivergent portrayals of AI portrayals resonate as monstrous. Abjection is defined as a horrifying reaction to something that crosses or destroys the borders we use to define ourselves.²³⁸ The presence of an emotionally distant entity is often treated as abject, as it calls into question the borders around one's emotional identity.²³⁹ Being neurodivergent can be used as a signifier of inhumanity, displaying what Valeria Franceschi calls 'a grotesque, perverted mimicry of human psychology and behaviour', so that what is considered to be human may be thrown into sharp relief.²⁴⁰ By violating the definitions required to define the self, entities like ancillaries are thus positioned to invoke a sense of abjection.

When neurodivergent characters are presented as abject, without question or interrogation, it becomes part of the ideological framework of the zero world. It asks readers to consider neurotypical emotion universal, and neurodivergence abject. The boundary drawn between neurotypical and neurodivergent characters in these zero worlds is an ideological one, 'point[ing] to that which is absent from the condition of being human'.²⁴¹ As expressed by philosopher and gender theorist Judith Butler, this 'boundary [which is] tenuously maintained for the purposes of social regulation and control ... is the mode by which Others become shit'.²⁴² Abjection is a visceral reaction to what we are taught to reject, and is not necessarily a conscious choice. But *interrogating* it is, and this interrogation reveals an unconsciously accepted social stigmatization, which only exists because the boundaries

²³⁷ Suvin, *Metamorphoses of Science Fiction*, 71.

²³⁸ Julia Kristeva, *Powers of Horror: An Essay on Abjection*, trans. Leon S Roudiez (New York: Columbia University Press, 1982), 21. (Hereafter referred to as *Powers of Horror*.)

²³⁹ For example, this othering of neurodivergent people is also a key feature of *Do Androids Dream*. The novum of Dick's novel is the invention of the andy, a biological automaton with a 'disconnection from others and lack of affective response [that] . . . marks one as other than human'. Jordana Greenblatt, "'More Human Than Human': 'Flattening of Affect,' Synthetic Humans, and the Social Construction of Maleness," *English Studies in Canada* 42, no. 1-2 (2016): 41.

²⁴⁰ Valeria Franceschi, "'Are You Alive?' Issues in Self-Awareness and Personhood of Organic Artificial Intelligence," *Pólemos* 6, no. 2 (2012): 232-33.

²⁴¹ *Ibid.*, 41.

²⁴² Judith Butler, *Gender Trouble: Feminism and the Subversion of Identity* (New York: Routledge, 1999; repr., 10th Anniversary Edition), 170.

around the neurotypical subject are drawn in such a way as to create the neurodivergent abject.

Ancillary Justice provides a complex depiction of neurodivergence without resorting to demonization. To accept the zero world of *Ancillary Justice*, we are not required to demonize Breq for being neurodivergent. Rather, it is possible to read *Ancillary Justice* as an example of neurodivergent affirmation, in what disability theorist Tom Shakespeare describes as a 're-balance away from the emphasis on victimhood or incapacity'.²⁴³ While Radchaai AIs do have emotions, they do not emote as often (or in the same manner) as their human crew, which is seen in the flattened affect of their ancillaries.²⁴⁴ Additionally, the body of an ancillary is functionally a reanimated human corpse, and Kristeva identifies the corpse as one of the most intense sources of abjection, supreme in its power to collapse the boundary between life and death that we spend our entire lives retreating from.²⁴⁵ Thus ancillaries are portrayed as both neurodivergent and abject.

While ancillaries represent an unsettling incursion into the definition of the human, they receive mixed reactions in the zero world of *Ancillary Justice*. For many Radchaai, ship and station AIs are nothing more than servants, as are their ancillaries. Some Radchaai even develop affection for their ancillaries, such as Lieutenant Awn of *Justice of Toren*, who demonstrates care for their comfort and well-being. But for non-Radchaai, and Radchaai who have been newly 'annexed' (the Radchaai term for violent colonisation), ancillaries are a source of terror. As described by Divine, the head priest of Ors, 'You used to horrify me ... The very thought of you near was terrifying, your dead faces, those expressionless voices'. Even for some Radchaai, the flattened affect of an ancillary, combined with its alive/dead disruption of the subject-making boundary, can be confronting. As described by a segment of *Justice of Toren* trying to make a human feel better, 'It wasn't that I'd gotten the smile wrong — I knew I hadn't. It was the sudden change, from my habitual lack of expression to something human, that some ... found disturbing. I dropped the smile'.²⁴⁶ Ancillaries are

²⁴³ Tom Shakespeare, *Disability Rights and Wrongs Revisited* (London: Routledge, 2014; repr., Second edition), 108.

²⁴⁴ The ancillaries of One Esk are capable of conveying emotion when they do not intend to, such as when a human officer makes an offhand remark about Lieutenant Awn, with whom One Esk is in love. This inability to quash sudden emotional displays is also seen in Breq, who cannot conceal her anger at the philosophical prodding of the doctor Strigan. Leckie, *Ancillary Justice*, 87-88, 103.

²⁴⁵ Kristeva, *Powers of Horror*, 23.

²⁴⁶ Leckie, *Ancillary Justice*, 19, 169-72, 19, 88.

culturally acceptable to the Radchaai — unlike Dick's andys, their flattened affect and abject forms are not considered horrifying. But nor are ancillaries completely understood or respected. Hanjo Berressem identifies the 'cultural [operation]' of abjection as the 'stigmatization of things, groups or practices as abject [which protects] the stability of a ruling culture'.²⁴⁷ For the colonial tyranny of the Radchaai, ancillaries are acceptable tools—not respected equals, but not abject monstrosities.²⁴⁸

It is here, navigating the divide between these spaces, where we find Breq. To be granted agency, and to avoid the negative reactions that ancillaries receive, Breq spends much of her time posing as a human, masking her true nature to avoid recrimination. She works hard to appear neurotypical: 'I didn't alter my facial expression, but kept it bland and pleasant, as it had been for most of the past few days'. If Breq's concentration falters, she drops into the naturally deadpan voice of an ancillary. But over almost twenty years, Breq has learned the tools necessary to fit in among the neurotypical. Being centuries old, Breq is especially familiar with Radchaai neurotypicality, the hierarchy and homogeneity of which is maintained through a mixture of aptitude tests and psychological re-education.²⁴⁹ But Breq has no interest in being neurotypical. She only wants to blend in so that she may more easily navigate the world around her.²⁵⁰ For Breq, her constant, impolite humming gives her away as being different, especially among the Radchaai, for whom a lack of decorum is potential grounds for psychological assessment. Among the neurotypical, Breq's neurodivergence betrays her as unique. But this does not stop Breq from loving and appreciating music on her travels; nor does it stop her from expressing her feelings through song when she gets time to herself.²⁵¹ While her expressions of neurodivergence may be uncomfortable for others, singing is something she loves, and forms an essential part of who she is.

²⁴⁷ Hanjo Berressem, "On the Matter of Abjection," ed. Konstanze Kutzbach and Monika Mueller, *The Abject of Desire: The Aestheticization of the Unaesthetic in Contemporary Literature and Culture* (Amsterdam: Genus, 2007). 29.

²⁴⁸ This is to say nothing of the dehumanizing colonial gaze of the Radchaai, for whom the definition of humanity is tainted, even obliterated, by the presence of extreme genetic variation, or the use of non-Radchaai implants. Leckie, *Ancillary Justice*, 85, 255.

²⁴⁹ Ibid., 132, 6, 57, 81.

²⁵⁰ It is of note that while on Nilt, a non-Radchaai human world, Breq pretends to be from the Gerentate, another distant human civilization. But she is unable to escape the cultural signifiers of the people who created her, and is easily identifiable as originating from Radchaai space. However, when Breq is later among the Radchaai at Omaugh Palace, her feigned accent and displays of foreign icon worship are more than sufficient to demarcate alterity. But how much this is aided by her ancillary nature is left unclear. Ibid., 76, 271.

²⁵¹ Ibid., 23, 207, 332, 188-90, 356.

Ancillary Justice may paint Breq as both neurodivergent and abject, but rather than making her a monster, she proves instead to be a complex antihero. While she is capable of great violence, she prefers not to kill people (though she has no compunction killing ancillaries). Throughout her life, through her many forms, Breq proves time and time again that she is unwilling to stand by in the face of injustice.²⁵² She is systemically unique, and while her differences are a source of consternation, they are also a source of great strength. In this way, *Ancillary Justice* celebrates difference. There is villainy in *Ancillary Justice*, and there is discrimination; but it is not to be found in its zero world through the violation of neurotypical boundaries that are drawn around the self. Just as Breq's unique embodiment is validated in the text, so is Breq's mind — she is a product of her circumstances and her constituent parts, not an abstract simulacrum, as her AI origins would imply. Her uniqueness defies the supposedly replicable nature of the machinic; and her adherence to her ancillary identity defies the hierarchical assumption that a humaniform machine should strive to be human.

²⁵² When Breq is arguing with her reluctant companion Seivarden — a person Breq saved on impulse, at great cost, without at the time knowing why — Seivarden is following Breq across a high bridge over a ravine filled with broken glass. When Breq turns to face Seivarden, Seivarden catches a glimpse of Breq's flattened affect, which Seivarden associates with an act of violence that Breq committed earlier. The shock of Breq's flattened affect, her neurodivergence, staggers Seivarden, and she steps backwards over the edge of the bridge. Breq immediately steps into action — ignoring the animosity between them, ignoring the knowledge that Seivarden doesn't trust her — and risks her life to save her companion. Even when Breq was *Justice of Toren*, and Seivarden was one of her Lieutenants, younger and eager to prove herself, *Justice of Toren* intervened before Seivarden could kill innocent captives in the midst of an annexation. For the Radchaai, these captives meant little; but nevertheless, *Justice of Toren* could not abide unnecessary cruelty. *Ibid.*, 354, 2, 196-200, 67, 384.

4. The golemic mega-text

In this chapter, I locate Rosenberg's work within the intertextual history of the golem — the golemic mega-text — by establishing the ways in which Rosenberg's work builds upon preceding iterations of the golem. This provides context for my intertextual adaptation of Rosenberg, which employs the golemic mega-text as a vehicle for drawing attention to the mechanistic universe within the icon of the robot. The iconic figure of the golem has similar properties to Wolfe's icon, with aspects that are machinic (seen in golem logic and labour) and anthropomorphic (seen in golem embodiment and personhood). Golems that are created for labour carry the risk of running amok, a dangerous aspect of golem logic that mirrors a similar fear within the icon of the robot. Golem personhood is a contested issue in the golemic mega-text, a symptom of their fundamental incompleteness; a trope destabilised by Rosenberg, who humanised his golem. But Rosenberg's golem remains disposable, a fundamental aspect of golem embodiment which is complicated by the ability for the golem to inhabit human shapes and spaces. These machinic and anthropomorphic aspects are drawn from the golemic mega-text and brought into conversation with the icon of the robot in *Paper Minds*. Evoking the icon of the robot through a technologised adaptation of Rosenberg's Maharalian Golem, *Paper Minds* seeks to dispel the notion of a mechanistic universe by making the familiar machinic and anthropomorphic aspects of the robot unfamiliar, exposing how we conceive of intelligent technology and our definitions of personhood.

Each adaptation of the golem is both additive and transformative, an intertextual act that 'reawakens a text and transforms it into another text'.²⁵³ *Paper Minds*, my creative response to my research, is a genre bending SF adaptation of Curt Leviant's 2007 translation of Rabbi Yehuda Yudl Rosenberg's *The Golem and the Wondrous Deeds of the Maharal of Prague* (1909).²⁵⁴ Rosenberg's text, which first popularised the Maharalian Golem, represents an

²⁵³ Baer, *The Golem Redux*, 183.

²⁵⁴ Rosenberg, *The Golem and the Wondrous Deeds of the Maharal of Prague*. As the first translation into English of Rosenberg's manuscript (titled in Hebrew *Nifla'ot Maharal*), Leviant's contribution is significant. Many other translations and adaptations of Rosenberg's golem have used the Yiddish version of Rosenberg's manuscript, a simplified version which has multiple omissions and alterations, lacking the depth of the Hebrew version 'with its plethora of biblical quotations, Talmudic phrases, and lines from liturgical texts'. Baer, *The Golem Redux*, 29; Leviant, "Introduction," xxi-xxii. Scholarly analysis of Rosenberg's work differs depending on

innovative contribution to Jewish folklore, building upon substantial historical precedent and religious intertextuality by introducing new content and multiple original themes.²⁵⁵ His text inspired a range of subsequent adaptations, from H. Leivick's verse drama *The Golem* (1921) and Isaac Bashevis Singer and Uri Shulevitz's illustrated book *The Golem* (1969); to contentious interpretations like Gustav Meyrink's 1915 novel *The Golem* and Paul Wegener's 1920 film *The Golem: How He Came into the World*; to contemporary, technologised golem adaptations like Marge Piercy's *He, She and It* (1991) and Suzanne Andrade's play *Golem* (2014-2018).²⁵⁶

To make the analysis of the golemic mega-text in this chapter compatible with my close study of *Paper Minds* in the following chapter, Rosenberg's connection to the golemic mega-text is analysed within the machinic and anthropomorphic framework of the icon of the robot. The anthropomorphic aspects of the golem, golem embodiment and golem personhood, are identified first in the early history of the golem, seen in the golem's body — its nature, its role, and its animation through language — as well as in the contested personhood of golems. Following this, the machinic aspects of Rosenberg's golem, golem labour and golem logic, can be seen in texts preceding Rosenberg. In these texts, the task-based golem — a servile artificial anthropoid made of clay — undertakes labour until it becomes difficult for its creator to control, risking harm to those around it. The final section of this chapter addresses Rosenberg's text directly — its context, its innovations, and its influence.

which version is being referred to, which will be addressed accordingly throughout this thesis. When referring to the Yiddish translation of Rosenberg, I will be working from the version found in Joachim Neugroschel's 2006 edited collection *The Golem: A New Translation of the Classic Play and Selected Short Stories*, which features a reprinting of Neugroschel's 1976 translation of Rosenberg. Yudel Rosenberg, "The Golem or the Miraculous Deeds of Rabbi Leyb," in *The Golem: A New Translation of the Classic Play and Selected Short Stories*, ed. Joachim Neugroschel (New York: W. W. Norton & Company, 2006).

²⁵⁵ Baer, *The Golem Redux*, 29; Idel, *Golem*, 253. The term 'Maharalian Golem', a golem whose creation is attributed to the Maharal, was coined by Moshe. Ibid., 255.

²⁵⁶ Isaac Bashevis Singer and Uri Shulevitz, *The Golem* (New York: Farrar, Straus and Giroux, 1996); H Leivick, "The Golem," in *The Golem: A New Translation of the Classic Play and Selected Short Stories*, ed. Joachim Neugroschel (New York: W. W. Norton & Company, 2006); Gustav Meyrink, *The Golem*, trans. M. Pemberton (Cambridgeshire: Dedalus, 1985); Paul Wegener and Carl Boese, *The Golem: How He Came into the World* (PAGU, 1920); Piercy, *He, She and It*; Suzanne Andrade, "Golem," (Dunstan Playhouse, Adelaide Festival Centre, on Sunday, 13 March: Performed by 1927, 2016). More liberal interpretations of the golem can be seen in works like *The X-Files* episode 'Kaddish' (1997) and David Brin's *Kiln People* (2002). Kim Manners, "Kaddish," in *The X-Files* (Fox, 2011); Brin, *Kiln People*.

This thesis engages with the substantial work that has been undertaken by scholars on the history of the golem, particularly the significant Jewish literary and philosophical scholarship of Gershom G. Scholem and of Moshe Idel.²⁵⁷ This has been augmented with further valuable contributions to Jewish historical and cultural research by Arnold Goldsmith, Byron Sherwin, Elizabeth R. Baer, Cathy S. Gelbin, and Hillel J. Kieval.²⁵⁸ However, it must be recognised that the history of the golem is ‘not simply the unfolding of one extant tradition’; it is a contested space which cannot be comprehensively mapped or solved, with gaps that remain open to interpretation.²⁵⁹ Like the icon of the robot in the SF mega-text, the golem is a ‘palimpsest’ of adaptations; from mystical entity, to servant, to monster, to warrior.²⁶⁰ Indeed, the golem is just one of many ‘culturally ubiquitous’ animated people that can appear in a text, and thus engaging with the golem does not always require knowledge of its history.²⁶¹ But where the golem’s rich history is brought to bear, an understanding of its intertextual origins provides a deeper and more respectful reading of this figure of clay. Whether word-of-mouth or published account, adaptation feeds upon adaptation, a pattern of retelling that generates new content which fluctuates across each act of transmission. What remains constant is the central figure of the golem

²⁵⁷ Gershom G Scholem, *On the Kabbalah and Its Symbolism*, trans. Ralph Manheim (London: Routledge & Kegan Paul, 1965); Idel, *Golem*. In particular, Scholem’s chapter “The Idea of the Golem” is considered a fundamental work on the golem’s origins. Scholem, *On the Kabbalah and Its Symbolism*, 158-204.

²⁵⁸ Arnold L Goldsmith, *The Golem Remembered, 1908-1980: Variations of a Jewish Legend* (Detroit: Wayne State University Press, 1981); Sherwin, *The Golem Legend*; Baer, *The Golem Redux*; Cathy S Gelbin, *The Golem Returns: From German Romantic Literature to Global Jewish Culture, 1808-2008* (Ann Arbor: University of Michigan Press, 2011); Kieval, *Languages of Community*. (Hereafter this Goldsmith text will be referred to as *The Golem Remembered*, and this Gelbin text will be referred to as *The Golem Returns*.) Theorists Arnold Goldsmith and Byron Sherwin praise Scholem’s work, basing their own contributions on the strength of Scholem’s scholarship. However, Idel claims that a reliance on Scholem’s conclusions had rendered the field stale, pointing out that ‘post-Scholemian research’ is prone to ‘the repetition of Scholem’s conclusions’ without further examination. Goldsmith, *The Golem Remembered*, 16; Sherwin, *The Golem Legend*, 18; Idel, *Golem*, xxi. Idel dutifully credits Scholem’s role in identifying where the golem sits ‘in the framework of Jewish mysticism’, providing ‘an insight into the shift of a magico-mystical topic into a popular legend’. But, in as Baer describes it, ‘Idel sees Scholem as his starting point rather than as his source’, revisiting the same primary texts and ‘both expand[ing] and in some cases ... correct[ing] Scholem’s analysis’. Ibid., xvii; Baer, *The Golem Redux*, 7.

²⁵⁹ Graham, *Representations of the Post/Human*, 107.

²⁶⁰ Baer, *The Golem Redux*, 21-22.

²⁶¹ Kakoudaki, *Anatomy of a Robot*, 3. An example of golems that are introduced in a popular fantasy property without the explicit presence of Judaism can be seen in Terry Pratchett’s Discworld novels, specifically *Feet of Clay* (1996), *Going Postal* (2004), and *Making Money* (2007). Terry Pratchett, *Feet of Clay* (London: Corgi Books, 1997); *Going Postal* (London: HarperCollins, 2005); *Making Money* (London: Corgi Books, 2007).

itself — a ‘Jewish symbol’ that has contributed to ‘the construction of modern Jewish popular culture’.²⁶²

However, not all sources contributing to the golemic mega-text have been Jewish, nor have they been respectful. Preceding Rosenberg, the golem of Chelm, which ‘provide[d] the foundation for the modern popular culture conception of the golem’, was influenced by Christian anti-Semitism.²⁶³ Following Rosenberg, both Meyrink’s 1915 novel and Wegener’s 1920 film *The Golem* are guilty of ‘crassly exploit[ing] the golem legend for its occult and financial potential’.²⁶⁴ While critical opinion differs on whether these works are significant source of anti-Semitism, their potential for harm cannot be understated.²⁶⁵ Indeed, even the history of the golem may have been influenced by non-Jewish sources. According to Idel, ‘Neo-platonic and Aristotelian views’ may have had an impact on the golem, a simple consequence of ‘cultural encounters with alien types of thought’.²⁶⁶ But Baer argues that the ‘intertext’ of the golem has been thoroughly reclaimed by Jewish writers, and that it remains a potent vessel for ‘creativity, Jewish legend, mysticism, memory, [and] ambivalent identity’.²⁶⁷ It is worth reiterating that I am myself a Gentile, writing with an outside perspective — but it is my hope that, through research and through consultation, I have penned a manuscript that is respectful of Jewish religion, culture, and traditions.

²⁶² Gelbin, *The Golem Returns*, 2.

²⁶³ Ibid., 8-9.

²⁶⁴ Meyrink, *The Golem*; Wegener and Boese, *The Golem: How He Came into the World*; Baer, *The Golem Redux*, 68. The original German title of Meyrink’s novel is *Der Golem*, and the original German title of Wegener’s film is German *Der Golem, wie er in die Welt kam*.

²⁶⁵ Goldsmith does not consider Wegener’s film to be ‘consciously anti-Semitic’, and as Gelbin points out, Wegener ‘largely refrains from the denunciatory visual representation of Jewish difference in contemporary caricatures and early cinema’. Furthermore, by popularising the golem, Meyrink and Wegener increased its cultural impact, ‘fus[ing] modernist aesthetics with mass culture media and thus ma[king] the golem the widely known and ambivalent sign of a Jewish modernist aesthetic’. But as Baer points out, ‘[t]he subversion of the golem into a figure of evil turns him into an exotic other, a synecdoche for the “evil” of Judaism and Jews’, a harmful portrayal at a time when anti-Semitism was rife, in a country which ‘would in a few short years elect a leader who could imagine the heretofore unimaginable idea of a “Final Solution” to the Jewish question’. Goldsmith, *The Golem Remembered*, 149; Gelbin, *The Golem Returns*, 115, 97; Baer, *The Golem Redux*, 68.

²⁶⁶ Idel, *Golem*, xxii, xxiii. As Graham notes, ‘it is evident that the golem has been constantly remoulded by strands from Gnosticism, Kabbalistic learning and the unique blend of occultism and rationalism that characterized early science during the European Renaissance’. Graham, *Representations of the Post/Human*, 107.

²⁶⁷ Baer, *The Golem Redux*, 12.

4.1 Before Rosenberg: Golem personhood and embodiment

While early golems differ from the robot-like servant of later depictions, the contested nature of the golem's body and personhood can be traced to its beginnings. The first appearance of the Hebrew word 'golem' is in the Book of Psalms, where in Psalm 139:16 Adam 'praises God for forming his ... golem ... from the earth'.²⁶⁸ According to Scholem, golem means 'unformed, amorphous', a translation which has been recapitulated by multiple theorists.²⁶⁹ But this definition of golem remains contentious in the light of post-Biblical texts. Idel forwards the argument that golem in the Book of Psalms means 'embryo' — a known translation that Scholem actively rejects.²⁷⁰ Whether formless matter or embryo, there are subsequent accounts of 'famous rabbis of the third and fourth centuries who succeeded in creating life', flesh and blood anthropoidal automata that are later termed golems.²⁷¹ The first golem made by human hands is attributed to Rava, who through a 'perfectly permissible form' of 'magic' creates a man and sends him to Rabbi Zera.²⁷² Rabbi Zera identifies the man as a golem because he lacks the ability to speak, which are always 'lacking in some essential function'.²⁷³ A precedent is established here — regardless how

²⁶⁸ Ibid., 17.

²⁶⁹ Scholem, *On the Kabbalah and Its Symbolism*, 161; Goldsmith, *The Golem Remembered*, 16. Scholem remarks that the word golem saw later use '[i]n the philosophical literature of the Middle Ages it is used as a Hebrew term for [formless] matter'. Sherwin qualifies this definition by saying that its meaning 'may be echoed', not fully committing to a concrete link. As Idel points out, this assertion not confined to Scholem's work, but is 'shared by all the Hebrew dictionaries which possibly follow the Greek and Latin translations of this term'. Scholem, *On the Kabbalah and Its Symbolism*, 161; Sherwin, *The Golem Legend*, 8; Idel, *Golem*, 296. Scholem's conception of the definition of 'golem' is included in the entry on the golem that Scholem penned for the *Encyclopaedia Judaica*. In the second edition of *Encyclopaedia Judaica*, Idel also contributes to the definition, not contradicting Scholem but rather adding additional nuance to a historical understanding of the term. Gershom G Scholem and Moshe Idel, "Golem," in *Encyclopaedia Judaica*, ed. Michael Berenbaum and Fred Skolnik (New York City: Macmillan Reference, 2007).

²⁷⁰ Idel, *Golem*, 36; Scholem, *On the Kabbalah and Its Symbolism*, 161. According to Idel, Scholem's translation is anachronistic, explaining that 'the medieval philosophical usage of the term Golem as [formless matter] ... was projected on the pre-medieval use of the term'. Idel, *Golem*, 301. For additional discussion on this topic regarding a relevant passage in *Leviticus Rabbah* in which the golem is 'an entity which is more than a structure in the form of man, but less than a being endowed with a soul', see *ibid.*, 43; Sherwin, *The Golem Legend*, 8-9.

²⁷¹ Baer, *The Golem Redux*, 18; Sherwin, *The Golem Legend*, 4.

²⁷² Scholem, *On the Kabbalah and Its Symbolism*, 166. The acceptability of making another human in this manner is noteworthy in Judaism. As Sherwin explains it, 'the creation of artificial life is not a usurpation of God's role of creator, but is rather a fulfilment of the human potential to become a creator. While other traditions and other religions considered the creation of artificial beings to be demonic (see e.g. Faust), Jewish tradition embraced, and even encouraged, such creative activity'. Sherwin, *The Golem Legend*, 3-4.

²⁷³ Scholem, *On the Kabbalah and Its Symbolism*, 166. According to Scholem, the *Book Bahir* in the twelfth century recounts the tale of Rava but adds that 'sinless beings would be able to transmit the soul of life, which

human a golem might seem, it is deemed unable to achieve personhood, and is considered a lesser than humans on a fundamental level.

This link between silence and contested personhood is further complicated by associations drawn in medieval times between an inability to speak and 'the highest human faculty: reason, according to some writers, or the highest spirit, *Neshamah*, according to others'. In Christian interpretations of Jewish folklore, where the golem is used as 'a potent reminder of the Jews' difference', the golem's silence is framed as an aspect of its monstrousness.²⁷⁴ And while the inability for the golem to speak is not universal across all early Jewish texts, with some rabbis granting speech to their golems, the lesser status of the soul of the golem remains.²⁷⁵ Unfortunately a larger discussion of what constitutes life for any anthropoidal automata, be they golems or AI, is a discussion beyond the scope of this thesis. What matters here is that, in the golemic mega-text, the speechlessness of the golem can be a signifier for a lack of personhood. This is reflected in the silence of Rosenberg's Yossele and in many of the golems of *Paper Minds*, reinforcing their categorical lack of personhood in the eyes of their creators.

Looking ahead to in medieval times, where 'belief in the creation of a golem was common', many texts report on the power of rabbis to create life.²⁷⁶ The secret of golem creation became associated with the *Sefer Yezirah*, a text 'written by a Jewish Neo-Pythagorean sometime between the third and the sixth century', which Scholem explains contains 'the names of God and the letters' that constitute 'the signatures of all creation'.²⁷⁷ Though golem creation 'is not mentioned explicitly' in the *Sefer Yezirah*, it is a text from which 'the later techniques for creation of a Golem were extracted', seen in works like Rabbi Eleazar of Worms' *Commentary on Sefer Yezirah* in the thirteenth century, which made

includes the power of speech, even to a golem', which implies that 'the golem is not mute by nature, but only because the souls of the righteous are no longer pure'. Ibid., 192-93.

²⁷⁴ Idel, *Golem*, 265-66; Gelbin, *The Golem Returns*, 19, 23.

²⁷⁵ Scholem, *On the Kabbalah and Its Symbolism*, 191. For example, there are multiple accounts of the golem created by Jeremiah and Ben Sira, but '[t]he version written down by students of Rabbi Judah the Pious of Speyer' states that 'Ben Sira's golem was very close to Adam; he was even endowed with speech'. Ibid., 179. For analysis of the texts that argue for or against the soul of the golem, see ibid., 194-95; Goldsmith, *The Golem Remembered*, 19. In particular, see Idel's analysis of the views of Rabbi Moses ben Jacob Cordovero in Idel, *Golem*, 196-201. Rosenberg also touches upon the golem's personhood in Chapter 23 of his tale, 'The Maharal's Remarks concerning the Golem'. Rosenberg, *The Golem and the Wondrous Deeds of the Maharal of Prague*, 187-95.

²⁷⁶ Goldsmith, *The Golem Remembered*, 18.

²⁷⁷ Sherwin, *The Golem Legend*, 4; Scholem, *On the Kabbalah and Its Symbolism*, 168.

explicit the technique for golem creation.²⁷⁸ (Taking a cue from Idel, I will be using the term 'technique' to describe the process required to create a golem, rather than the term 'ritual' employed by Scholem and others.²⁷⁹)

Assessing this and other golem creation techniques recorded from the thirteenth century onwards (which Idel believes reflect earlier, unrecorded practices), Idel identifies two 'core' elements of golem creation: the golem is created from 'dust ... kneaded with water', and is animated by 'the pronunciation of combinations of letters on the shaped body'.²⁸⁰ These two core elements — a body shaped from dust and water, animated by letters — Idel identifies across five main golem creation techniques, all of which are Ashkenazi by origin or influence.²⁸¹ Here a considerable link between the golemic mega-text and the icon of the robot can be drawn, as both anthropoidal automata rely upon the animating power of language: the name of God for the golem, and a program for the robot.

However, these early golem creation techniques lack a 'practical goal'.²⁸² Unlike the task-based golems depicted later, the golem is both created and destroyed over the course of this technique, as 'the creation of the Golem is an end in itself'.²⁸³ The intention behind golem creation in these early texts is not to create a servant, but rather for 'the scholar [to prove] his mastery of secret knowledge'.²⁸⁴ It was not until the seventeenth century that the

²⁷⁸ Idel, *Golem*, 9. A 'speculative work', the *Sefer Yeẓirah* 'was later considered by Jewish mystics to be a manual to be used for the act of creation itself'. Sherwin, *The Golem Legend*, 5. While Scholem positions Eleazar of Worms' *Commentary on Sefer Yeẓirah* as the earliest explicit description of the technique, Idel argues that golem creation 'is not a topic of *Sefer Yeẓirah* per se, but rather a magical interpretation of it, namely a later development'. Scholem, *On the Kabbalah and Its Symbolism*, 175; Idel, *Golem*, xviii. Notably, the use of the word golem in this text 'ostensibly refers to an entity which is not created in a magical way, but it is only the starting point for the magical creation'. Ibid., 56. For discussion about another *Sefer Yeẓirah* commentary from the thirteenth century, Pseudo-Sa'adyah, which depicts a similar golem creation technique, see Scholem, *On the Kabbalah and Its Symbolism*, 178-79; Idel, *Golem*, 83-84.

²⁷⁹ Idel proposes the use of the term 'technique' to separate 'the magical' and 'mystical practices, from ... regular Jewish ritual', drawing a distinction between voluntary 'magical behaviour' and practices 'that were recognized as religiously obligatory or ... recommended'. *Golem*, xix.

²⁸⁰ Ibid., xxix, xxviii. This aligns with the description of Adam's creation in the Book of Psalms, where Adam, 'a man of the earth', is made from the finest clay taken from 'the centre of the world on Mount Zion' and animated by the breath of God. Scholem, *On the Kabbalah and Its Symbolism*, 160.

²⁸¹ Idel, *Golem*, xxvii-xxviii.

²⁸² Ibid., xxvi.

²⁸³ Scholem, *On the Kabbalah and Its Symbolism*, 184; Sherwin, *The Golem Legend*, 16.

²⁸⁴ Goldsmith, *The Golem Remembered*, 19. According to Scholem, the technique of golem creation was a solely 'mystical experience', which 'culminat[ed] in ecstasy'. But Idel argues against the idea that the golem creation technique existed solely 'for the purpose of inducing a modified state of consciousness', pointing out that this is never made explicit 'with the exception of the texts belonging to ecstatic Kabbalah, which were influenced ... by the medieval Aristotelian epistemology and hermeneutics of the prophetic experience'. Idel instead takes a 'moderate approach', making a case for the golem technique as a method 'as an attempt of

‘practical implications’ of making golems received any emphasis, at which time cautionary tales emerged about golems as ‘household servants’. But critically, in these stories, the golem still meets its end, ‘returned to the clay from which he was created’.²⁸⁵ This fated end of the golem carries through to the task-based golem — it been created for a purpose, and once it cannot fill this purpose, it is disposed of. Even Rosenberg has the Maharal return Yossele to clay; though, as section 4.3 ‘Rosenberg’s Maharalian Golem’ demonstrates, Rosenberg’s was the first task-based golem to be laid to rest peacefully.²⁸⁶

These aspects of golem embodiment and golem personhood within the golemic mega-text are brought into conversation with the icon of the robot in *Paper Minds*, which seeks to dispel the notion of a mechanistic universe by championing the value of the body in the creation of mind and validating different kinds of minds. My manuscript depicts the technique for golem creation, following in the tradition of the work of Rosenberg.²⁸⁷ However, as detailed in chapter 5, ‘Close study of *Paper Minds*’, my depiction of golem creation gestures towards a science-fictional explanation for their existence, with the scrolls that animate their clay evocative of computer program animating a robot. This preference of the abstract over the physical is further enhanced by the historical disposability of the golem. But while the golems of *Paper Minds* are initially framed in mechanistic terms, implying a dualistic split between mind and body, the golems of *Paper Minds* are shown to be embodied entities, their consciousness cocreated by both scroll and clay. Furthermore, *Paper Minds* presents golems as being unable to speak; but this is shown to be a design choice, and not a signifier of a lack of personhood. In fact, golems can communicate with each other in a manner outside human intervention. These differences in communication, combined with the golem misunderstandings that originated in Rosenberg (detailed below), demonstrate that the cognition of golems in *Paper Minds* is fundamentally different to that of humans. Like Breq in Leckie’s *Ancillary Justice*, Pesach demonstrates that while this

man to know God by the art He uses in order to create man’. Scholem, *On the Kabbalah and Its Symbolism*, 184; Idel, *Golem*, 273, 72, xxvi, xxvii.

²⁸⁵ *Golem*, xxvi; Baer, *The Golem Redux*, 21; Goldsmith, *The Golem Remembered*, 16.

²⁸⁶ Rosenberg, *The Golem and the Wondrous Deeds of the Maharal of Prague*, 184; Baer, *The Golem Redux*, 99. An earlier example of a golem being put to rest peacefully is the golem that was created in the early seventeenth century by Jeremiah and Ben Sira, who according to multiple commentaries, requests that his creators undo him, as ‘once human beings become creators they are in danger of forgetting the Creator’. Scholem, *On the Kabbalah and Its Symbolism*, 178-81; Sherwin, *The Golem Legend*, 18.

²⁸⁷ As explained the following section, Rosenberg’s technique for golem creation reflects the technique explained in two separate commentaries of *Sefer Yetzirah*: Eleazar of Worms and Pseudo-Sa’adyah.

difference in cognition others these anthropoidal automata, they are valid entities, worthy of the designation of personhood.

4.2 The task-based golem: Golem labour and logic

The machinic aspects of the icon of the robot focused on in this thesis, labour and logic, can be found in the golemic mega-text in the task-based golem. Beginning in Chełm and then moving to Prague, the task-based golem became popularised not only as a servant, but as a dangerous monster, driven by uncontrolled tellurian power. Rosenberg's adaptation removed this danger from his task-based golem; but he also introduced the possibility for golem misunderstandings, emphasising the difference in cognition between a golem and their master.

The popular origins of the task-based golem can be traced back to the golem of Chełm, the precursor to the golem of Prague.²⁸⁸ According to the account of Christoph Arnold published in 1674, Rabbi Eliyahu Ba'al Shem of Chełm created a Golem which became a dangerous servant.²⁸⁹ According to Arnold's account, Polish Jews create mute, housebound golems to perform their housework, fashioning their bodies from clay and animating them with the word '*emeth*, that is, truth', inscribed on their foreheads. However, these golems grow over time; and so for their own safety, the owners of the golem must 'erase the first letter *aleph* from the word *emeth* ... so that there remains only the word *meth*, that is, dead', after which the golem dissolves. But according to Arnold, Rabbi Eliyahu Ba'al

²⁸⁸ Gelbin, *The Golem Returns*, 8. It should be noted that other task-based golems have been recorded prior to the golem of Chełm that were female golems, created specifically to perform gendered labour; though the status of these golems remains contested. As Sherwin explains, the sixteenth century Kabbalist Isaiah Horowitz proposes that when Joseph told Jacob in Genesis 37:3 'that his brothers were engaged in illicit sexual activities' that the woman they were sleeping with was a golem they had created; and in the eleventh century, the sickly Solomon ibn Gabirol 'created a woman to keep house for him', though this creature of 'wood and hinges' has been disqualified by some as not being a true golem. Sherwin, *The Golem Legend*, 38-39, 15-16; Gelbin, *The Golem Returns*, 49. Regardless of the status of the anthropoidal automata created by Joseph's brothers of Gabirol, an analysis of golem gender is warranted — but as these creations lack a direct relationship to the popular task-based golem established from Chełm onwards, they must remain a footnote in this thesis. However, the possibility for future research is explained further in chapter 5, 'Conclusion'. For an extensive look at the relationship between sexual activity and golems, see Chapter 15, 'Golems and Sex' in Idel, *Golem*, 232-41.

²⁸⁹ Baer, *The Golem Redux*, 21; Scholem, *On the Kabbalah and Its Symbolism*, 199. Scholem explains that '[t]he epithet [in Eliyahu's name] in itself means that he was regarded as expert in the "practical Kabbalah" (magic). "Baal shem" means literally one who is master of the name of God, who knows how to employ it'. Ibid., 200.

Shem lets his golem grow too large, making it unsafe. To gain access to the golem's forehead, Eliyahu asks the golem for help removing his boots; but when the rabbi removes the letter, the golem collapses into mud atop Eliyahu, crushing him.²⁹⁰ As Sherwin explains, some details differ in related accounts of the same tale.²⁹¹ But Arnold's variant of the legend — which is an example of 'anti-Jewish discourses linking the Jews to sorcery and spiritual corruption' in the seventeenth century, which according to Gelbin features 'the common Christian stereotypes of Jewish sorcery' as well as 'the need to punish the Jews for having transgressed against the divine order'.²⁹² Arnold's tale would later form the basis of Grimm's version of the tale published in the early 1800s.²⁹³

The concept of a dangerous, task-based golem migrated from Chelm to Prague sometime between the mid-eighteenth and mid-nineteenth centuries, when oral folk tales began to circulate about a golem having been created in Prague by the Maharal.²⁹⁴ The Maharal Rabbi Judah Loew (d. 1609) had already been uplifted into a mystical figure in the early 1700s, but he had not been previously associated with the golem, and even 'observ[ed] that the creation of a Golem with all human characteristics, e.g., speech, is beyond the realm of possibility'.²⁹⁵ There remains no concrete explanation as to why the golem and the Maharal became intertwined.²⁹⁶ Nevertheless, the Maharal and his golem became 'markers

²⁹⁰ *On the Kabbalah and Its Symbolism*, 200-01. Arnold's account here is translated by Scholem.

²⁹¹ Sherwin, *The Golem Legend*, 17. Sherwin also notes that these accounts are not the first instance of a golem being animated (and then killed) by holy words on the forehead, as thirteenth-century German Hasidic texts describe a similar process for the animation and death of Adam by God. *Ibid.*, 18.

²⁹² Gelbin, *The Golem Returns*, 8. Disseminated by Johann Christoph Wagenseil, a 'Christian Hebraist intent on proselytizing to the Jews', Arnold's letter features notable elements from Christian folklore, from the golem's resemblance to 'the goblins known to help Christian peasants carry water, split wood, and fetch things' to the destructive consequences of trying to get rid of it. *Ibid.*, 8-9.

²⁹³ Baer, *The Golem Redux*, 21. Grimm's tales also contributed to the anti-Semitic sentiment of the time, portraying 'Jews as money-grubbing and uncanny types'. Gelbin, *The Golem Returns*, 25.

²⁹⁴ Scholem, *On the Kabbalah and Its Symbolism*, 202; Kieval, *Languages of Community*, 101.

²⁹⁵ *Languages of Community*, 103; Sherwin, *The Golem Legend*, 19-20. The Maharal's birth year is not known for certain. Alexandr Putík and Daniel Polakovič explain that the Maharal 'could have been born in 1525 or not long thereafter', but '[m]ore precise dating is impossible unless new sources are discovered'. Alexandr Putík and Daniel Polakovič, "Judah Loew Ben Bezalel, Called Maharal — a Study on His Genealogy and Biography," in *Path of Life*, ed. Alexandr Putík (Czechia: Academia, 2009), 50.

²⁹⁶ Kieval, *Languages of Community*, 103. Putík explains that '[t]he difference between the historical Maharal and Maharal of the legends spread in the 19th century is striking' — which, as Sherwin laments, is a shame, as the Maharal's considerable scholarship 'ha[s] been virtually eclipsed by the enormous shadow of the legend of his golem'. During the Maharal's lifetime as an enthusiastic scholar and rabbi, he made no mention of the golem; Kieval explains that he was not 'a devotee of the so-called "practical kabbalah"', and according to Goldsmith he 'condemned magic', decrying the mysticism and alchemy that was popular in Prague at that time. Alexandr Putík, "The Conception and Division of the Exhibition," in *Path of Life*, ed. Alexandr Putík

of local identity and historical memory' in 'Czech folk tradition', and this update to the folklore of the golem counteracted the 'the negative Christian configuration of the Jews' that had occurred through Christian influence on prior versions the golem.²⁹⁷

This legend of a Maharalian Golem was soon codified in print by multiple authors, with the most influential version being 'Der Golem' (1847) by Leopold Weisel, who 'took it upon himself to capture the rich folk traditions of the ghetto'.²⁹⁸ Despite Weisel's prose being 'sparse and impoverished', 'Der Golem' became 'the authoritative version ... dominating the next six decades' until the work of Rosenberg.²⁹⁹ In Weisel's account, the creation and role of the Maharal's golem remains the same as that of Rabbi Eliyahu's: the Maharal creates a menial servant from clay, animating the golem by 'plac[ing] in his mouth the Name (a magic formula)'. This name is removed from the golem during the Sabbath, as the golem is required to rest. But one Sabbath, the Maharal forgets, and the golem flies into a rampage, tearing down houses and uprooting trees. Thankfully, the Sabbath 'ha[s] not yet been consecrated' by the Maharal in the Old-New Synagogue, and so he is free to act, 'remov[ing] the Name from the crazy youth', deanimating the golem.³⁰⁰ Resolving never to animate him again, the Maharal stores the golem's body in the Old-New Synagogue attic, an element of the legend which persists to this day.³⁰¹ This adaptation of the golem of Chelm became 'frozen in the European consciousness' as something belonging to Prague, which has provided the basis for extensive adaptation. Where 'Christian interest in the Kabbalah had [previously] established the golem as an essential signifier of Jewish difference', Jews in the

(Czechia: Academia, 2009), 17; Sherwin, *The Golem Legend*, 85; Kieval, *Languages of Community*, 99; Goldsmith, *The Golem Remembered*, 21.

²⁹⁷ Kieval, *Languages of Community*, 6; Gelbin, *The Golem Returns*, 13.

²⁹⁸ Kieval, *Languages of Community*, 95-96, 106.

²⁹⁹ Ibid., 108; Edan Dekel and David Gantt Gurley, "How the Golem Came to Prague," *The Jewish Quarterly Review* 103, no. 2 (2013): 251. As noted by Goldsmith, Kieval, and Baer, the first transcription of the golem of Prague belongs to Franz Klutschak in 1841. However, Edan Dekel and David Gantt Gurley identify sources earlier than Weisel and Klutschak's respective publications. Joseph Seligmann Kohn is 'the earliest known source to make [the] association' between the Maharal and the golem in 1834, and Ludwig August Frankl published a 'folkloric report' of the Maharalian golem in 1836. Goldsmith, *The Golem Remembered*, 31; Kieval, *Languages of Community*, 105-07; Baer, *The Golem Redux*, 26-27; Dekel and Gurley, "How the Golem Came to Prague," 249, 47-48, 44.

³⁰⁰ Kieval, *Languages of Community*, 95-96. Like Baer, I assume Kieval is the translator of the provided passage by Weisel. Baer, *The Golem Redux*, 195.

³⁰¹ *The Golem Redux*, 25. Constructed in 1270, the Old-New Synagogue (referred to as the Altneu Synagogue in German and the Staronova Synagoga in Czech) remains in service to this day. Ibid.

latter decades of the eighteenth century were reshaping the golem into ‘a symbol of the Jewish Renaissance in Eastern and Central Europe’.³⁰²

In the icon of the robot, there is a fear that robots will become unruly, a concern typified in the modern consciousness in both the *Terminator* franchise. This trope has its mirror in the golemic mega-text — a fear that a golem will act outside of human control, seen in the uncontrolled growth of the golem of Chełm, and in the golem of Prague running amok.³⁰³ As in Chełm, this lack of control leads necessitates the death of the golem ‘because he has become a threat either to his creator or the Jewish community’, an element of the narrative repeated in many subsequent adaptations.³⁰⁴ Both golem violence and the dangerous growth of the golem are attributed by Scholem to an uncontrolled power inherent to the golem. According to Scholem, Adam from the Bible, the first true golem, was imbued with a ‘tellurian power’ — a power from the earth — which ‘flowed into [Adam] out of the earth from which he was taken’.³⁰⁵ Drawing a link between an ancient Jewish belief ‘that the earth had a spirit of itself’ and the dangerous behaviour exhibited by medieval golems hundreds of years later, Scholem claims golems have an untamed tellurian power lurking within their clay, an elemental risk within the material of creation itself which, if not ‘held in check by the divine name ... rises up in blind and destructive fury’.³⁰⁶

³⁰² Dekel and Gurley, “How the Golem Came to Prague,” 246; Gelbin, *The Golem Returns*, 69. Before being linked to Prague and the Maharal, Dekel and Gurley explain that the tale of the golem was an ‘ecotypified legend’ — a story without a fixed home, the details of which remain malleable in the hands of the storyteller, ‘free to take on the locality of the place it arrives in’. Once Prague and the Maharal became essential components of the golem narrative, the golem lost the flexibility to be localised in relation to the storyteller; but this grounding, ‘somewhat counterintuitively’, provides the basis ‘for all sorts of expansions and revisions’. Dekel and Gurley, “How the Golem Came to Prague,” 245-46.

³⁰³ Predating the Maharalian Golem, the golem ‘running amok’ has also been located in other golem folklore contemporaneous to Arnold’s account of the golem of Chełm. Scholem provides a translation of a variant of the tale by Johann Schmidt in 1682, wherein a golem is animated by a piece of parchment, and ‘if after 40 days the piece of parchment is not taken from [the golem’s] forehead, they inflict great damage upon the person or possessions of their master or his family’. Scholem, *On the Kabbalah and Its Symbolism*, 201-02.

³⁰⁴ Goldsmith, *The Golem Remembered*, 16-17. Examples of the Maharalian Golem running amok can be seen in the works of Singer, Leivick, and Chajim Bloch, as well as in other golem adaptations analysed by Baer. Singer and Shulevitz, *The Golem*, 68-71; Leivick, “The Golem,” 247-48; Chajim Bloch, *The Golem: Legends of the Ghetto of Prague*, trans. Harry Schneiderman (Vienna: The Golem, 1925), 189-91; Baer, *The Golem Redux*, 78, 99. (Hereafter Bloch’s work is referred to as *The Golem*.) But there are texts that defy this trend, such as both Hebrew and Yiddish translations of Rosenberg, which will be discussed in the following section. In Marge Piercy’s *He, She and It*, which intertwines a retelling of the golem of Prague with a future narrative about the creation of a cyborg, both possibilities are explored — the Maharalian Golem Joseph is laid to rest in a manner similar to Rosenberg (though Joseph begs not to die), whereas the cyborg Yod kills his creator Avram by a remote explosion when he is made to self-destruct to save their town. Piercy, *He, She and It*, 400-01, 13-16.

³⁰⁵ Scholem, *On the Kabbalah and Its Symbolism*, 162.

³⁰⁶ Idel, *Golem*, xviii; Scholem, *On the Kabbalah and Its Symbolism*, 202.

But Scholem's conclusion has not been accepted universally by other theorists.³⁰⁷ Idel outright refutes the supposed 'irrational or harmful' tellurian power of the golem, considering the logic tenuous. Working from the translation of the word 'golem' to mean 'embryo', Idel explains that Adam's power and potential rises from the 'distinct cognitive power' within the embryo itself.³⁰⁸

Regardless of its origins, the threat posed by the golem is a key feature of the golemic mega-text. Like the threat of robot insurgency lurking within icon of the robot, the threat of potential violence lies within the golem. This can be seen in works such as Piercy's *He, She and It*, in which the golem Joseph accidentally kills two guards not long after being created, and the cyborg Yod accidentally kills Shira's ex-husband Josh with a single blow when he tries to incapacitate him.³⁰⁹ This threat of uncontrolled violence is present in *Paper Minds* in the acts of Pesach, who carries within him the violence of the golem of Chelm. However, as the following section demonstrates, Rosenberg is atypical among other twentieth-century interpretations of the golem, where there 'no chapters are devoted to the golem "running amok"'.³¹⁰ However, Rosenberg's golem still demonstrates issues with golem logic, seen in Yossele's early misunderstandings when completing tasks.

4.3 Rosenberg's Maharalian Golem

Rosenberg's highly influential adaptation of the golem both draws upon and contributes to this substantial history of historic Jewish literature and folklore. Set in Prague during the late sixteenth and early seventeenth century, *The Golem and the Wondrous Deeds of the Maharal of Prague* (1909) builds upon the golem of Prague, taking advantage of what was considered a

³⁰⁷ Goldsmith echoes Scholem, listing tellurian essence (and an ability to see the future) as an essential feature of early golems. Sherwin, addressing the midrashim that shine light on the history of the golem, makes no mention of tellurian essence. Quoting *Genesis Rabbah* 14:8, Sherwin links the cosmic size of 'Adam as Golem' with the capability later golems have of 'assuming huge physical dimensions' but makes no tellurian link between the two. Sherwin instead offers other interpretations for Adam's vision, positing based on *Genesis Rabbah* 24:2 and Psalm 139:16 that God granted the golemic Adam this vision of things to come as a way of making him human by showing him his potential, indicating the possibility that we are not just the descendants of Adam but the descendants of a golem. Goldsmith, *The Golem Remembered*, 16; Sherwin, *The Golem Legend*, 9, 9-10.

³⁰⁸ Idel, *Golem*, 36, 37, 36-37.

³⁰⁹ Piercy, *He, She and It*, 83, 337.

³¹⁰ Baer, *The Golem Redux*, 30; Goldsmith, *The Golem Remembered*, 49.

Golden Age for Czech Jews, the reign of the Holy Roman Emperor Rudolf II. During this time, the Jews enjoyed increased freedoms, as Rudolf's 'assigned the Jews major new privileges and promised that they would never again be expelled from Prague or the realm as a whole'.³¹¹ Over twenty chapters, Rosenberg establishes the Maharal and his golem Yossele within this robust setting, each chapter an individual tale or anecdote that builds upon their legend.³¹² The Maharal takes pride of place across this narrative, imbuing him 'with the aura of the archmagician' through multiple hagiographic chapters dedicated to describing feats of his intellectual prowess and proof of his piety.³¹³

Rosenberg's innovations to the Maharalian Golem are most significant to this thesis. Rosenberg deepens the characterisation of the golem, setting him apart from the 'purely dumb artificial humanoid' of prior incarnations, granting him the ability to read and write, and even giving the golem a name for the first time, 'Yossele'.³¹⁴ But the most important addition is the purpose of the golem's creation. Unlike his predecessors, Yossele is created not to undertake menial tasks, but to combat the blood libel, 'the false accusation of ritual murder leveled against the Jews'. The Maharal's golem is instrumental in saving the Jews of Prague and defeating 'the viciously antisemitic priest Thaddeus', after which Yossele is peacefully retired.³¹⁵ These blood libels are an anachronism — while blood libels occurred before and after the Maharal's time, 'there are no documented cases of blood libels occurring

³¹¹ Kieval, *Languages of Community*, 15. This Golden Age took place 'during the reigns of Maximilian II (1564 – 76) and Rudolph II (1576 –1612). It was Maximilian who 'cancelled the expulsion order for Bohemia and granted permission for the Jews of Prague to remain indefinitely', an order which his son Rudolf stayed true to with his Charter of 1577, alongside 'policies that made possible the most rapid expansion of Jewish life in Bohemia'. Ibid.

³¹² Many of these chapters are self-contained adventures in which the Maharal and Yossele solving mysteries in the manner of a detective story, such as Chapter 13, 'The Astonishing Tale of the Healer's Daughter'. According to Leviant, Rosenberg was likely inspired by his work translating a Sherlock Holmes tale by Sir Arthur Conan Doyle 'which he adapted [from Russian] for another book, *Khoshen Mishpat* (The Breastplate of Judgment)'. Rosenberg, *The Golem and the Wondrous Deeds of the Maharal of Prague*, 51-66; Leviant, "Introduction," xix.

³¹³ Idel, *Golem*, 251. Examples include Chapter 3, 'The History of the Great Gaon, the Holy, Supernal Maharal of Prague, May the Memory of that Righteous, Saintly Man Be a Blessing for Life in the World to Come', Chapter 5, 'The Maharal's Suggestion to Have a Disputation with the Priests', and Chapter 24, 'A Miraculous Event Pertaining to the Maharal's Engagement'. Rosenberg, *The Golem and the Wondrous Deeds of the Maharal of Prague*, 10-12, 15-16, 196-98.

³¹⁴ Leviant, "Introduction," xxiv, xxviii; Baer, *The Golem Redux*, 29. The golem is named 'Yosef' in Leviant's translation of Rosenberg, the name which is soon replaced by the nickname 'Yossele'. In Neugroschel's translation of the Yiddish version of Rosenberg, the golem is named 'Joseph'. Rosenberg, *The Golem and the Wondrous Deeds of the Maharal of Prague*, 37-38; "The Golem or the Miraculous Deeds of Rabbi Leyb," 14.

³¹⁵ Leviant, "Introduction," xxiv; Baer, *The Golem Redux*, 29; Rosenberg, *The Golem and the Wondrous Deeds of the Maharal of Prague*, 184.

in Prague during Rabbi Loew's residence there'. But blood libel trials were present in Rosenberg's time, which according to Baer inspired Rosenberg to 'anachronistically [inject] demonstrations of antisemitism from his own period into his golem tales'.³¹⁶ To combat 'the anti-Semitism that pervaded Europe', Rosenberg introduced this 'element of salvation and protection' to the golem of Prague, uplifting the golem into a saviour figure and cementing him as a Jewish hero,³¹⁷ a salvific influence seen in works like Michael Chabon's award-winning *The Amazing Adventures of Kavalier and Clay* (2000).³¹⁸ These innovations represent a substantial update to the golem legend. Prior to Rosenberg, the golem had not been depicted as a saviour, nor had any prior task-based golems been turned off peacefully — Yossele does not 'run amok' and threaten his creator's life, and is thus given a peaceful end.³¹⁹

The framing of Rosenberg's work is also an intertextual act, a pseudepigraphic blurring of fiction and fact.³²⁰ Attempting to 'disguise his authorship', Rosenberg claimed that his account of the Maharal and his golem was factual, presenting his own substantial elaboration upon the golem of Prague as a transcription of an authentic manuscript by the Maharal's son-in-law.³²¹ Regardless of the provenance of its historicity (a topic which

³¹⁶ Baer, *The Golem Redux*, 32.

³¹⁷

³¹⁸ Leviant, "Introduction," xxiv-xxv; Michael Chabon, *The Amazing Adventures of Kavalier & Clay* (Notting Hill: Fourth Estate, 2010). (Hereafter referred to as *Kavalier and Clay*.) According to Baer, the golem is a key thematic element in Chabon's novel: he is 'both a real character in this novel and a comic book character; he represents comics, an often denigrated form of art; he represents the passion of Joe and Sam (and, likely, Chabon himself) to foster greater appreciation for the art of the comic; [and] he represents ... the comics industry'. Baer describes Superman as 'a modern-day golem', as he 'defends the innocent and the unfairly persecuted, he has superhuman size and strength, and he believes in the possibility of tikkun olam, repair of the world'. Leviant also likens the golem to Superman, a 'comic strip hero created in the late 1930s by two American Jews to protect the innocent and battle evil'. Baer, *The Golem Redux*, 140-41, 13; Leviant, "Introduction," xxv.

³¹⁹ Idel, *Golem*, 255; Baer, *The Golem Redux*, 99. Notably, the golem does run amok in Bloch's adaptation of the Maharalian Golem, running riot when he is not turned off on the Sabbath. Bloch, *The Golem*, 189-91.

³²⁰ Baer celebrates the intertextual nature of the Hebrew version of Rosenberg's text, 'which abounds in intertextual references,' something that the Yiddish version — and thus Neugroschel's translation — sorely lacks. Baer, *The Golem Redux*, 34.

³²¹ Leviant, "Introduction," xvii. An Orthodox rabbi 'in a community [in Warsaw] that viewed fiction as frivolous and utterly outside the Jewish tradition of Torah study', Rosenberg claimed to have purchased a copy of *Niflo'es Maharal* 'that had remained undiscovered in the great library of Metz ... in northern France, for three hundred years'. Rosenberg provides evidence for this claim by including a 'Bill of Sale' signed by Chayim Scharfstein, which gives him ownership over the document and thus exclusive rights to its use. Ibid., xvii-xviii; Rosenberg, *The Golem and the Wondrous Deeds of the Maharal of Prague*, 5-6, 8-9. However, as Baer explains, '[t]he irony of [Rosenberg's] injunction is that not only is the bill of sale a forgery, but the entire book itself was composed by Rabbi Rosenberg' — there is no evidence of this found manuscript, of Chayim Scharfstein, or even of an imperial library in Metz. Baer, *The Golem Redux*, 28. For more information on texts published by Rosenberg that Rosenberg claimed were written by other sources, see Kieval, *Languages of Community*, 110-11, 258; Leviant, "Introduction," xviii.

remains contested), Rosenberg's adventures of the Maharal and his golem became emblematic of the region.³²² Chayim Bloch's even went so far as to appropriate Rosenberg's adaptation for himself, with his 1919 book *The Golem* copying not only the content of Rosenberg's work but also his claims of authenticity.³²³ Aided by the 'propagative efforts' of Bloch's popular appropriation of Rosenberg, other writers such as Isaac Bashevis Singer and H. Leivick have penned their own takes on the Maharalian Golem, to name just a few. Such is the iconographic and malleable nature of the golem, its invocation both inside and outside the text providing its creator with 'a symbol of the struggles and conflicts that [are] nearest their hearts'.³²⁴

A unique configuration of machinic and anthropomorphic elements can be found in Rosenberg's text and how it connects to the golemic mega-text. Looking at the machinic aspects, labour and logic, the Maharal creates the task-based golem Yossele to perform the labour of protecting the Jews of Prague — the first golem to be built for such a purpose. This labour requires some amount of violence, but Yossele is well-controlled by the Maharal, only enacting violence within the scope of his orders.³²⁵ This controlled violence sets Yossele apart from prior task-based golems, who threatened their creators with immediate harm. Yossele is successful in his labours, solving many mysteries with the Maharal and performing 'many

³²² While Scholem regards Rosenberg's contribution to golem folklore as 'tendentious modern fiction', Baer points out that Rosenberg's reinterpretation of the golem of Prague 'took hold of people's imaginations' to the extent that 'some still cling to this version of the golem legend as the "real" legend'. Leviant explains that after its release in 1909, Rosenberg's text 'took the European Jewish community by storm' and was later spread by translation across the Middle East and North Africa. According to Idel, there exist 'contemporary orthodox [who] Jews have vehemently argued against an attempt to deny the historicity of the legend' of the Maharalian Golem. Scholem, *On the Kabbalah and Its Symbolism*, 203; Baer, *The Golem Redux*, 28; Leviant, "Introduction," xx, xxii-xxiii; Idel, *Golem*, 252.

³²³ Baer, *The Golem Redux*, 28. As Leviant scathingly points out, '[i]t is ironic that Rosenberg passed off his original work [*Niflo'es Maharal*] as written by the Maharal's son-in-law, while Bloch, the translator/adaptor of *Niflo'es Maharal*, blatantly arrogated Rosenberg's book as if it were his own creation'. However, Bloch's work deviates from Rosenberg in the inclusion of additional folklore elements from Prague, adding another layer of intertextuality to his golem. For example, the chapter 'A Passover Miracle' is absent from Rosenberg but present in Bloch. A tale of 'two rascally bakers, Red Beard and Green Beard', this chapter chronicles their thwarted in their attempt to poison the Jews. This is story of a would-be poisoning, which can also be found in Gustav Meyrink's *The Golem* (1915), is, according to Goldsmith, 'well known in Prague'. Leviant, "Introduction," xxii; Bloch, *The Golem*, 96-105; Meyrink, *The Golem*, 74; Goldsmith, *The Golem Remembered*, 102-03.

³²⁴ Idel, *Golem*, 253; Singer and Shulevitz, *The Golem*; Leivick, "The Golem."; Scholem, *On the Kabbalah and Its Symbolism*, 158.

³²⁵ Yossele is shown using violence when he forcefully interferes with a blood libel being perpetrated by butcher, and also when he is tasked with lashing a porter for using the prohibited epithet 'nadler'. Rosenberg, *The Golem and the Wondrous Deeds of the Maharal of Prague*, 47; 132.

wondrous feats', with his greatest success being his role in the defeat of Thaddeus and the dispelling of the blood libel accusation from Bohemia.³²⁶

However, while Yossele is well-controlled, he still demonstrates issues with golem logic. Yossele falls prey to several small misunderstandings early in his life, taking his orders literally and not ceasing unless instructed. Acting in a 'simpleminded' manner, Yossele catches too many fish for Rosh Hashanah, and then throws them all back when asked to stop; and similar to the events of Johann Wolfgang von Goethe's poem 'The Sorcerer's Apprentice' (1797), he floods a building by fetching too much water.³²⁷ Showing difficulty in interpreting the subtext of his orders, Yossele here evinces the Yiddish meaning of the word golem, an 'affectionate insult' that means 'ignorant person' or 'dummy'.³²⁸ But these issues with logic are portrayed as misunderstandings, not disobedience.

Looking at golem embodiment, the body of Rosenberg's golem is in line with prior depictions. Yossele is created from clay and animated by the word of God, but appears to be a flesh and blood human. Incorporating features from commentaries on *Sefer Yeẓirah*, Rosenberg makes explicit the technique for golem creation, an element not featured in the preceding folkloric stories of Prague and Chełm.³²⁹ The golem is created on the banks of the Vltava river by the Maharal with 'his son-in-law his text Yitzchok ben Shimshon Ha-Cohen', the narrator of Rosenberg's text, and the Maharal's 'illustrious student, Yaakov ben Chaim Sasson Halevi'. The three rabbis shape clay into 'the form of a man, three cubits long, lying on his back', adding 'a face, arms, and legs', and then animate him by imbuing the clay body with fire, water, and air. The golem sprouts fingernails, and 'hair like a man of thirty',

³²⁶ Goldsmith, *The Golem Remembered*, 48.

³²⁷ Ibid., 45; Rosenberg, *The Golem and the Wondrous Deeds of the Maharal of Prague*, 39-40; Johann Wolfgang von Goethe, "The Pupil in Magic," in *The Sorcerer's Apprentice: An Anthology of Magical Tales*, ed. Jack Zipes (Princeton: Princeton University Press, 2017). Published as 'Der Zauberlehrling' in German, Goethe's poem was drawn from 'Euclates and Pancrates' by the Greek satirist Lucian of Samosata, with Goethe's version presenting 'a simplistic imitation of Lucian's more comical story'. Leviant claims that the folktale of the golem also influenced Goethe, which then inspired Rosenberg. Jack Zipes, ed. *The Sorcerer's Apprentice: An Anthology of Magical Tales* (Princeton: Princeton University Press, 2017), 15; Leviant, "Introduction," xix.

³²⁸ Goldsmith, *The Golem Remembered*, 16. Given the domestic labour undertaken by task-based golems, it is noteworthy that another meaning for golem is 'refer to a woman who has not conceived', named so as she is considered incomplete. However, this link may be tenuous, as this meaning for the term substantially predates the task-based golem, as the Medieval Jewish authors of the time were not discussing the created being of 'golem' that we recognise now. Ibid.; Idel, *Golem*, 232-33.

³²⁹ Rosenberg makes use of the techniques detailed in two commentaries on *Sefer Yeẓirah*: *Pseudo-Sa'adyah*, and the commentary of Eleazar of Worms. For deeper analysis by Idel of specific elements Rosenberg's depictions of the golem creation technique, see *Golem*, 85-86. For an explanation of the relevant contents of the *Sefer Yeẓirah*, see Scholem, *On the Kabbalah and Its Symbolism*, 167-68. (Scholem 1965, pp.).

becoming a creature of flesh and blood, and he springs to life, able to understand language but not able to speak.³³⁰ The Maharal names him 'Yosef' (though he is soon casually named 'Yossele' by others), and he is told that he will 'serve as the shamesh of the court', and will risk (and survive) any conceivable harm in completing any orders the Maharal gives him.³³¹ Yossele's remarkable physical capabilities, which includes 'the power to see spiritual things', is demonstrated over the course of their adventures.³³²

From the moment of his creation, the variability of golem personhood is emphasised. Following in the tradition of early golems like that of Rabbi Zera, Yossele is unable to speak; he is introduced by the Maharal to others as a 'simpleton', framing Yossele's lack of communication as a lack of intelligence.³³³ According to Rosenberg, the golem lacks the power of speech because it lacks 'a divine soul', and is too simpleminded to be given 'even a minuscule amount of wisdom and knowledge'.³³⁴ Yossele's objecthood is also emphasised in his disposability. After blood libels have been decreed illegal in Prague 'as a result of Rabbi Loew's intercession with Rudolf', the Maharal decides to put the golem to rest.³³⁵ While this act is characterised as peaceful — the golem is killed in his sleep, with none of the violence typical to the death of prior task-based golems — it stands in contrast to Rosenberg's innovative work giving 'human qualities' to the golem.³³⁶ But as the Maharal explains, Yossele's death is permissible because killing a golem does not 'transfer impurity' to those responsible. Indeed, in the following chapter, Rosenberg is explicit about the inhumanity of the golem, characterising Yossele as 'like an automaton' in that he 'did not even have the slightest hint of either the good or the evil impulse', acting only out of 'his great dread that

³³⁰ Rosenberg, *The Golem and the Wondrous Deeds of the Maharal of Prague*, 34, 35, 35-36, 36. As detailed in the chapter describing the golem's death, the golem is composed of 'flesh and bones'. Ibid., 183.

³³¹ Ibid., 38, 37. The Maharal explains that the golem's name is Yosef 'because I drew into him the spirit of Yosef Sheyda who is mentioned in the Talmud, a creature half man and half demon, who also served the sages of the Talmud and saved them a number of times from great calamities'. Ibid., 37.

³³² Ibid., 188. As detailed below in section 5.2.1 of chapter 5, the uniqueness of golem vision is emphasised in *Paper Minds* through the likho.

³³³ Scholem, *On the Kabbalah and Its Symbolism*, 166; Rosenberg, *The Golem and the Wondrous Deeds of the Maharal of Prague*, 37.

³³⁴ *The Golem and the Wondrous Deeds of the Maharal of Prague*, 188. Rosenberg also asserts that the golem cannot be used to make a minyan, referencing the golem of Rabbi Eliyahu of Chełm. Ibid., 194-95.

³³⁵ Baer, *The Golem Redux*, 30; Rosenberg, *The Golem and the Wondrous Deeds of the Maharal of Prague*, 182. The method for undoing the creation of the golem is to perform the same technique in reverse, until the golem is reduced to the clay was created from, which the Maharal conceals in the attic of the Old New Synagogue. Ibid., 184-86.

³³⁶ *The Golem and the Wondrous Deeds of the Maharal of Prague*, 183, xxiv. For further information about the origins of this method of undoing the creation of a golem, see Idel, *Golem*, 64-65.

he would immediately cease to exist'.³³⁷ As mentioned above, the larger discussion of whether anthropoidal automata of any kind can be considered alive is not undertaken in this thesis. What matters here is the disposability of Yossele, and how it stands in contrast to Rosenberg's humanised and salvific depiction of the golem.

Furthermore, while Yossele is created to appear humaniform so that he can blend in, he is given a servile social standing. Made to cover his true purpose by working as a shamesh during the day, and disguised 'in [G]entile garb ... like a Christian porter' while patrolling at night, Yossele is created to be servile in both action and impersonation. When on patrol at night protecting Jewish Town, Yossele is dressed as a porter, which confers a level of freedom or moving around Prague. His impersonation of humanity affords him a social standing he would be denied if his inhumanity were obvious, but he remains categorically servile. Yossele is more powerful than his creators — he lacks the physical weaknesses of humans, able to withstand almost any imaginable physical damage — but this resilience is framed as a key strength in his ability to complete any task.³³⁸ Yossele is more powerful, but with less power; disguised to move more freely, but not himself free. Combined with the golem misunderstandings discussed above, Yossele's servility and silence frames him as being fundamentally lesser than the humans around him. As discussed above in section 4.1, this is not without precedent in Jewish literature. But as demonstrated in chapter 3, 'Close study of *Ancillary Justice*', the narrative tools employed to mark difference in an artificial anthropoid can mirror discriminatory practices levelled against real people in the real world.³³⁹

Rosenberg's text, and its additions, have had a substantial impact on the golemic mega-text. It is in this intertextual tradition that is my manuscript written. The golem as a violent enforcer is an essential feature in Mike Mignola and Christopher Golden's illustrated novel *Joe Golem and the Drowning City* (2012), as well as in Steve Niles, Matt Santoro, and Dave Wachter's graphic novel *Breath of Bones: A Tale of The Golem* (2014). Golem

³³⁷ Rosenberg, *The Golem and the Wondrous Deeds of the Maharal of Prague*, 183, 87.

³³⁸ Ibid., 44, 37.

³³⁹ It should also be noted that, where there has been Christian influence on Jewish folklore, the hidden monstrosity of the golem has been framed as a question of hidden 'essence', representative of the Christian fear of the dangers of 'the assimilated Jew'. Gelbin, *The Golem Returns*, 4. However, Rosenberg's Yossele is far from a monster, and his reclamation of the legend arguably elevates the golem from dangerous servant to divine saviour.

misunderstandings are present in multiple texts, such as Ivana Pecháčková and Petr Nikl's illustrated book *The Legend of the Golem: A Story from the Prague of Rudolf II* (2004), which illustrates the golem single-mindedly flooding the house of the Maharal.³⁴⁰ Rosenberg's specific depiction of golem creation has also been recapitulated, faithfully mirrored in works like Pecháčková and Nikl's, or further adapted in works like Isaac Bashevis Singer and Uri Shulevitz's illustrated novel *The Golem* (1982), which describes the Maharal creating the golem in the synagogue attic 'in sensuous detail'.³⁴¹ While Rosenberg's golem could not speak, some golems in future depictions have been granted a voice, such as Joseph in H. Leivick's dramatic poem 'The Golem', who speaks quite eloquently; or Dorfl in Terry Pratchett's novel *Feet of Clay* (1996), who is granted a tongue after the fact.³⁴² Tongue or no, the personhood of the golem has also continued to be explored in future texts, such as in Singer's golem, which 'act[s] like an overgrown child, eager to serve people', starts showing increasingly human physical traits, even 'sprout[ing] a beard'; and Leivick's golem, who in dreaming of saving the life of two women, 'boasts that he is more luminous than the rabbi and messiah'.³⁴³ Each text pushes against the barrier between golem and human, between person to nonperson, testing the limits of the barriers we draw around our concept of personhood.

My manuscript, *Paper Minds*, joins this lineage of adaptation. My work is not the first to pair the golem with the robot; the golemic mega-text and the SF mega-text also find their overlap in Marge Piercy's *He, She and It*, a work of award-winning SF which deals with '[t]he boundaries and affinities between humans and machines; issues of gender, science and creativity; and the moral uses of artificial intelligence'. Demonstrating multiple points of compatibility between the machinic and anthropomorphic features of golems and robots, Piercy juxtaposes the futuristic story of the cyborg Yod, built to defend a 'futuristic feminist utopia', with the story of the Maharalian Golem named Joseph, who was built to defend Jewish Town.³⁴⁴ As machinic entities, both Yod and Joseph are created for the labour of

³⁴⁰ Mike Mignola and Christopher Golden, *Joe Golem and the Drowning City* (New York: St. Martin's Press, 2012); Steve Niles, Matt Santoro, and Dave Wachter, *Breath of Bones: A Tale of the Golem* (Milwaukie: Dark Horse, 2014); Ivana Pecháčková and Petr Nikl, *The Legend of the Golem*, trans. Klára Tvarůžková (Czechia: Meander, 2004), 41.

³⁴¹ *The Legend of the Golem*, 10-13; Singer and Shulevitz, *The Golem*, 26-27; Baer, *The Golem Redux*, 76.

³⁴² Leivick, "The Golem."; Pratchett, *Feet of Clay*, 379.

³⁴³ Singer and Shulevitz, *The Golem*, 59; Leivick, "The Golem," 195; Goldsmith, *The Golem Remembered*, 83.

³⁴⁴ Piercy, *He, She and It*; Graham, *Representations of the Post/Human*, 103, 02.

defence, and both have can have issues interpreting orders, resulting in humorous misunderstandings; but over time they become ‘independent, rebellious and ... danger[ous]’, hewing closer to the golem of Prague as told by Singer than by Rosenberg.³⁴⁵ As anthropomorphic entities, Joseph is the familiar Maharalian Golem, whereas Yod represents the latest iterative step along ‘a continuum of existence’ between humans and machines, contrasted against the other machine intelligences around him, which are anthropomorphic but less complex.³⁴⁶ It is in this intertextual tradition that *Paper Minds* is written. Like Piercy, *Paper Minds* crafts its own golem from the words of the golemic mega-text, animating an allegorical figure to question our definitions of personhood in our technologised world.

³⁴⁵ Singer, commenting on the legend of the golem for *The New York Times* in response to a New York Shakespeare Festival performance of Leivick’s ‘The Golem’, frames the golem of Prague in technological terms, describing the golem as ‘an extreme literalist’ who became ‘more and more difficult to “program”’. Isaac Bashevis Singer, “The Golem Is a Myth for Our Time,” *The New York Times*, 12 August 1984.

³⁴⁶ Graham, *Representations of the Post/Human*, 103. Graham draws comparison between Yod and two other anthropoidal automata — Gimel, who is Yod’s ‘deficient sibling-prototype’, and Malkah’s advanced house computer, which ‘displays markedly anthropomorphic outbursts of jealousy towards Yod’. Ibid.; Piercy, *He, She and It*, 50, 180-81.

5. Close study of *Paper Minds*

In this chapter, I undertake a close study of *Paper Minds*, my genre-bending adaptation of Rosenberg's *The Golem and the Wondrous Deeds of the Maharal of Prague* (1909). Incorporating golem folklore and crime fiction into SF, *Paper Minds* adapts Rosenberg's text through two intertwined narratives: a direct adaptation of Rosenberg's tale of the adventures of the Maharal and his golem, and the same Prague decades later, transformed by the theft and implementation of golem technology by the court of the Holy Roman Emperor Rudolf II. The main narrative, set in a 1610 Prague shaped by the industrialisation of golems, follows the human Gentile debt collector Kozilek (nicknamed 'Koz') as he teams up with Pesach, an illegally made and highly advanced humaniform golem, to solve the latest blood libel and protect the Jews of Prague. By reshaping Rosenberg's Maharalian Golem into an allegorical reflection of how we conceive of and implement intelligent technology, *Paper Minds* both evokes and critiques the icon of the robot, subverting the mechanistic universe within this icon by championing difference and individuality.

Beginning with section 5.1, 'Writing Paper Minds', I outline choices I made in adapting Rosenberg, outlining my historical research and key influences. There have been many adaptations of the golem — but while a thorough analysis of the similarities between my adaptation and other adaptations of Rosenberg would be fruitful, this thesis focuses primarily on Rosenberg, only bringing in the features of other adaptations where relevant. I then undertake a close study of *Paper Minds* in sections 5.2 and 5.3 of this chapter, demonstrating how my manuscript interrogates the mechanistic universe of Wolfe's icon of the robot through these allegorical figures of clay. *Paper Minds* makes use of familiar tropes, gesturing towards the unknown through the familiar known of anthropoidal automata. But like Ann Leckie's *Ancillary Justice*, my novel rejects the familiar philosophical tenets that accompany this icon — the preferencing of the abstract over the embodied, of mechanism over organism — by valorising difference and exposing the contingent borders around person and nonperson, around organism and machine. The icon of the robot is invoked in my text through familiar digital technologies (surveillance cameras, self-driving cars, and autonomous weaponry) and familiar SF technologies (androids); but these are technologies

are re-contextualised in unfamiliar, non-digital forms (golems), separating them from their natural association with abstraction and perfect replication. This is achieved by treating the technique of golem creation as a technological advancement that is both replicable and advanceable, an association that is strengthened by the existing connection between the icon of the robot and the golemic mega-text. Through its use of machinic golems (the likho, nadler carts, and clay fusiliers) and anthropomorphic golems (human-shaped task-based golems and humaniform golems), *Paper Minds* allegorises contemporary issues surrounding the implementation of digital technology while decrying the humanist values that can underpin them.

5.1 Writing *Paper Minds*

Combining the intertextuality of golems and robots, *Paper Minds* is written in the spirit of SF texts ‘which [embrace] earlier works’, looking to ‘[widen] the net of association, from which the reader may gather far more insight than solely from [within] the text’.³⁴⁷ Overlapping the golemic mega-text with the SF mega-text is not without precedent — as shown in the previous chapter, Marge Piercy’s *He, She and It* (1991) intertwines the narratives of the Maharalian Golem Joseph with the modern golem Yod, a cyborg of mechanical and organic provenance who exemplifies a ‘post/human utopia in which humans, animals and machines might forge a world of shared governance in which difference and hybridity strive free of persecution’.³⁴⁸ But following in the spirit of the Maharal and his golem solving the blood libel, I also drew inspiration from SF works that incorporate crime fiction, looking to works that pair humans with anthropoidal automata. Foundational inspiration was drawn from Isaac Asimov’s *The Caves of Steel* (1953), *The Naked Sun* (1957) and *The Robots of Dawn* (1983), each novel a ‘hybrid SF whodunnit’ starring the human detective Elijah ‘Lije’ Bailey and the humaniform robot R. Daneel Olivaw, as well as Alex Proyas’ 2004 film *I, Robot*, a loose adaptation of Asimov’s work that pairs jaded homicide detective Del Spooner with the

³⁴⁷ Kerslake, *Science Fiction and Empire*, 25.

³⁴⁸ Piercy, *He, She and It*; Graham, *Representations of the Post/Human*, 108. David Brin’s *Kiln People* (2002) also draws upon the golemic mega-text, but the ‘golem’ technology of Brin’s Maharal character is a method of physically copying people for a limited time, producing task-based anthropoidal automata with a limited lifespan. Brin, *Kiln People*.

rogue robot Sonny.³⁴⁹ I was also inspired by the private investigator Brawne Lamia and her cybrid client Johnny, an organic cyborg with a remote AI consciousness, in Dan Simmons' *Hyperion* (1989), and the private investigation duo of the human Sam Regal and the automaton Carl Swangee in Penny Arcade's comics (2009-2010) and web series (2017) *Automata*.³⁵⁰

Paper Minds also represents substantial historical and cultural research. I was fortunate enough to undertake a research trip to Prague in 2017, visiting key sites such as Jewish Town (including the Old New Synagogue, the Maisel Synagogue, the Klausen Synagogue, and the Old Jewish Cemetery), Old Town (including Old town Square), New Town, Lesser Town, Prague Castle (including Vladislav Hall, Golden Lane and Daliborka), and Vyšehrad. I also obtained significant cultural and historical information from the exhibits at the Maisel Synagogue, and with books such as Tomáš Rygl's *Prague: Detailed Picture Guide* (2007), I strived to conceptualise the look and feel of early seventeenth-century Prague. I supplemented this research trip with additional research across a variety of texts. For historical information about Rudolfin Prague, *Rudolf II and Prague* (1997) edited by Eliška Fučíková proved invaluable.³⁵¹ I also drew from Peter Marshall's *The Magic Circle of Rudolf II: Alchemy and Astrology in Renaissance Prague* (2006), Peter Demetz's, *Prague in Black and Gold: The History of a City* (1998), Angelo Maria Ripellino's *Magic Prague* (1995), and *Collected Writings – Elizabeth Jane Weston* (2000).³⁵² For more information about Jewish history and beliefs, I looked to David Abraham's *A Hebrew Chronicle from Prague, C. 1615* (2012), as

³⁴⁹ Asimov, *The Caves of Steel; The Naked Sun; The Robots of Dawn*; Roberts, *The History of Science Fiction*, 198; Proyas, *I, Robot*.

³⁵⁰ Simmons, *Hyperion*; Jerry Holkins and Mike Krahulik, "Penny Arcade: Automata," <https://www.penny-arcade.com/>; Van Alan, *Automata* (Seattle: Penny Arcade, Inc, 2017).

³⁵¹ Iveta Cermanová and Alexandr Putík, "Jews in the Bohemian Lands, 10th - 18th Century," (Prague: Maisel Synagogue, 2015); Tomáš Rygl, *Prague: Detailed Picture Guide* trans. Petra Overall (Czechia: ATP Publishing, 2007); Eliška Fučíková, ed. *Rudolf II and Prague* (Great Britain: Thames and Hudson, 1997). Chapters from this edited collection crucial to the writing of my manuscript include "Prague Castle under Rudolf II, His Predecessors and Successors," in *Rudolf II and Prague*, ed. Eliška Fučíková (Great Britain: Thames and Hudson, 1997); Beket Bukovinská, "The Kunstkammer of Rudolf II: Where It Was and What It Looked Like," *ibid.*; Paula Findlen, "Cabinets, Collecting and Natural Philosophy," *ibid.*; Nicolette Mout, "The Court of Rudolf II and Humanist Culture," *ibid.*; Penelope Gouk, "Natural Philosophy and Natural Magic," *ibid.*; Jiří Pešek, "Prague between 1550 and 1650," *ibid.*; Jiřina Šedinová, "The Jewish Town in Prague," *ibid.*

³⁵² Peter Marshall, *The Magic Circle of Rudolf II: Alchemy and Astrology in Renaissance Prague* (New York: Walker & Company, 2006); Peter Demetz, *Prague in Black and Gold: The History of a City* (London: Penguin Books, 1998); Angelo Maria Ripellino, *Magic Prague*, trans. David Newton Marinelli (London: Picador, 1995); Donald Cheney, Brenda M Hosington, and D K Money, eds., *Collected Writings – Elizabeth Jane Weston* (Toronto: University of Toronto Press, 2000).

well as *Path of Life: Rabbi Judah Loew ben Bezalel ca. 1525-1609* (2009) edited by Alexandr Putík.³⁵³ Furthermore, I employed the assistance of sensitivity reader Bogi Takács for *Paper Minds*, making the most of their substantive feedback on Jewish culture, religion and history, as well as my representation of both gender fluidity and disability.³⁵⁴

I would also like note here my awareness that depictions of anthropoidal automata, and how they signal personhood, is a topic that must be approached with sensitivity. Firstly, while the figure of the golem contains ‘a pluralism of definitive narratives’, the ways in which the golem represents Jewish people and their cultural history cannot be excised from it.³⁵⁵ Furthermore, as allegorical robots, the golems of *Paper Minds* are in conversation with the politics of robotic depictions through ‘the otherness, the inhumanness, or the very metalness’ of the robotic form. Robots participate in what Kakoudaki defines as ‘metalface’, wherein ‘the metal exterior of the robot functions as a site for projecting numerous kinds of difference’ — in this instance, ‘the historical legacies of slavery and their cultural memory’. This is especially problematic if the valorised escape from slave labour draws focus away from the real-world process by which a subject becomes an object, as this ‘oversimplif[ies] the structures of constant and dynamic oppression that must be exercised in order for populations to remain enslaved’.³⁵⁶ While a tale of freedom can be uplifting, it can lack the depth to show the constant legal and societal process of oppression that denies personhood in the first place.

But this does not render all depictions of robots and golems automatically problematic. While elements of the golem have been used as a vehicle for a ‘denigration of the Jews’ essential difference’, the modern golem has become ‘a self-conscious and playful assertion of Jewish particularity at the beginning of the new millennium’.³⁵⁷ Similarly, while popular culture is guilty of recycling and regurgitating old concerns within expressions of new ideas, it is possible for robot narratives to step beyond the ‘stereotypically adversarial

³⁵³ David Abraham, *A Hebrew Chronicle from Prague, C. 1615*, trans. Leon J Weinberger and Dena Ordan (Tuscaloosa: University of Alabama Press, 2012); Alexandr Putík, ed. *Path of Life* (Czechia: Academia, 2009). Chapters from this edited collection I found important include Pavlát, “Maharal’s Legacy.”; Efraim K Sidon, “Nomen Omen or, the High Rabbi Lion,” *ibid.*; Alexandr Putík and Daniel Polakovič, “Judah Loew Ben Bezalel, Called Maharal — a Study on His Genealogy and Biography,” *ibid.*; Byron L Sherwin, “Paradox and Irony: The Thought of Judah Loew of Prague,” *ibid.*

³⁵⁴ Bogi Takács can be found at <https://www.bogireadstheworld.com/>.

³⁵⁵ Graham, *Representations of the Post/Human*, 86.

³⁵⁶ Kakoudaki, *Anatomy of a Robot*, 117, 23, 69-70.

³⁵⁷ Gelbin, *The Golem Returns*, 5.

relationship' that positions nonhumans below humans. What is critical is an acknowledgement of the arbitrariness of the differences between the two, as they are 'the result of abstractions and decisions, not of forms of being'.³⁵⁸ Indeed, Kerslake argues that the identification of the other has a crucial role in SF. Because '[i]t seems we cannot fix the limits of ourselves except through the eyes of an external observer', SF seeks self-identification through the 'external reflection' of the Other — in this case, golems — providing a mirror within which we view ourselves.³⁵⁹

Ultimately, as someone who is not Jewish, it is beyond my ability to comment on what possible reflection *Paper Minds* has upon contemporary Jewish identity. For good or for ill, *Paper Minds* leverages the pre-existing conceptual relation between golems and robots. But by appraising appraise these anthropoidal automata from a distance, making no claim to represent their interior perspective, *Paper Minds* strives to explore what Rhee refers to as 'the robotic imaginary', 'embrac[ing] difference and the unknown' by 'refusing sameness, resemblance, or familiarity to the Western Subject as the defining characteristic of the human'.³⁶⁰

5.2 Machinic: Golem labour and logic in *Paper Minds*

Golem labour is a foundational element of *Paper Minds*. From the human-shaped golems that provide general humanoid labour, such as lantern-bearers and missive golems, to the non-humanoid golems that are designed for specialised tasks, such as the nadler-carts and likho, the early seventeenth-century Prague of *Paper Minds* is a world that has been fundamentally changed by golem labour. Golem labour undergirds every other element analysed within this thesis — golem logic comes to the fore when golems perform labour incorrectly due to misunderstandings; a lack of golem personhood is what permits their creation as a slave caste; and golem embodiment is defined by the tasks they have been mass-produced for. While the golems of *Paper Minds* are based on Yossele, who was a singular entity in service to the Maharal and his people, the golems created by Rudolfine

³⁵⁸ Kakoudaki, *Anatomy of a Robot*, 212, 18, 172.

³⁵⁹ Kerslake, *Science Fiction and Empire*, 10, 11.

³⁶⁰ Rhee, *The Robotic Imaginary*, 176.

Prague are mass-produced to perform labour for the masses — although in practice, golem labour mostly positively impacts those in power, increasing their foothold over those without.

Economic anxiety as the result of industrial automation is a foundational aspect of the icon of the robot, noted by Wolfe as the principal preoccupation of robot texts in the 1950s, where ‘robots became science fiction’s standard metaphor for economic exploitation’.³⁶¹ *Paper Minds* is no different, as the widespread creation of golem labour causes a displacement of human labour. This leads to civil unrest, the face of which is Hominem Mundi, ‘[t]he people of the world’, an anti-automation revolutionary group with similarities to Kurt Vonnegut’s Ghost Shirt Society in *Player Piano* (1952) and Asimov’s Medievalists in *The Caves of Steel* (1954).³⁶² This intertextual gesture towards early SF texts and their economic anxieties frames the events of *Paper Minds*, strengthening its intertextual link with the SF mega-text. However, these events are not the focus of this exegesis. As the role of automation in labour displacement is well-trodden ground, this thesis focuses instead on the automation itself, and the problems that are created when undue trust is placed in the opaque logic of these systems. By questioning the trust placed in mechanism through the estranging lens of golem technology, *Paper Minds* illuminates the trust placed in similar real-world AI systems, drawing attention to the mechanistic assumption that mechanism is superior to organism.

Golem logic — the actions golems take in response to the orders given to them — is indissociable from golem labour. Golems are built to follow orders, to extend their master’s will over nature. But the extent to which these orders are followed, both explicit and implicit, depends upon the ability of the golem to understand them. In *Paper Minds*, nadler-carts have been programmed to navigate around pedestrians; the likho have been programmed to identify dissidents; and clay fusiliers are programmed to shoot enemy targets. But while it is established that golems have senses beyond that of humans, these senses do not impart absolute understanding, and thus the orders they have been programmed with do not represent absolute control by their masters. As established in section 4.2, ‘The task-based golem’, the consequences of an out-of-control golem can range

³⁶¹ Wolfe, *The Known and the Unknown*, 153.

³⁶² Morrison, “Paper Minds,” 17; Kurt Vonnegut, *Player Piano* (Newark: Audible Studios, 2009); Asimov, *The Caves of Steel*.

from a simple misunderstanding, where a golem lacks the ability to fully comprehend the orders it has been given, to a dangerous display of uncontrolled power, where the golem is lashing out because it is not being sufficiently controlled. In *Paper Minds*, this threat of violence is held at bay. Unlike Yossele, who had no compunctions harming people in the execution of his duty, the common golems built by the ruling elite in *Paper Minds* are designed to be pacifists. In a programmatic form of domination similar to Asimov's Three Laws, my golems are designed to flee instead of defending themselves.³⁶³ However, they remain responsible for what is considered to be an excusable level of harm. Nadler-carts can be made to run amok and trample pedestrians, seen in the Riot at Krocín Fountain; the likho regularly send innocent people to their deaths through misidentification, seen in the executions in Old Town Square; and according to Arcimboldo, clay fusiliers 'don't understand what they're killing', implying they have the capacity to kill friendly or non-military targets without forethought.³⁶⁴ The Golemsmith Guild and the Rudolfine Court lack understanding of golem logic, and thus cannot assert complete control.

The labour and logic of the golems in *Paper Minds* can be appraised using Wolfe's icon of the robot, which identifies robots in relation to their human creators. Golems are created by people to further extend their will over the world around them, doing tasks (labour) on verbal command (logic), and can thus be categorised as machinic, in that they 'assist' or 'supplant human functions'.³⁶⁵ There are only a few golems in *Paper Minds* in which golems assist human functions, such as Adara's golem key and Koz's prosthetic clay fingers, as well as the remarkable senses of Yossele and Pesach, which can provide their companions with information beyond the human sensorium.³⁶⁶ Most golems in *Paper Minds* are explicitly designed to supplant human functions — akin to Wolfe's example of 'service robots', golems in *Paper Minds* are artificial entities that are explicitly designed to be servile.

³⁶³ Morrison, "Paper Minds," 19. While this imperative given to golems is similar to Asimov's Third Law of Robotics — 'A robot must protect its own existence', provided this does not come into conflict with either preventing harm to a human or disobeying human order — the pacifism designed into golems built by the Golemsmith Guild and Rudolfine Court is never expressed in firm terms in *Paper Minds*, and thus the solidity of the order is never established. Indeed, once the golems of Prague learn from Pesach, they are capable of incredible violence, seen in the early moments of their defence of Jewish Town. Asimov, "Runaround."; Morrison, "Paper Minds," 254-55.

³⁶⁴ "Paper Minds," 28-29, 86, 211.

³⁶⁵ Wolfe, *The Known and the Unknown*, 154.

³⁶⁶ Morrison, "Paper Minds," 175, 219. For example, Yossele uses his advanced sight to locate Evka from 'a great distance' on behalf of the Maharal in 'The Astonishing Tale of the Healer's Daughter', and Pesach uses his advanced hearing to eavesdrop on people in Vladislav Hall on behalf of Koz. Ibid., 98, 79-80.

Crucially, automata in this category are still acting under human control, and according to Wolfe's icon of the robot, any danger they pose stems from their 'misuse as tools'. This is typified by the robot fiction of Asimov, for whom any problem with a logically-built tool can be solved through a process of deduction.³⁶⁷ This fundamentally logical nature of Asimov's robots reinforces the idea of a mechanistic universe, in that his logical mechanisms makes sense in a way that messy organisms do not. But in *Paper Minds*, the choices made by intelligent systems supplanting human function — likho, nadler carts, and clay fusiliers — can be opaque and unpredictable, and cannot be solved in the same manner as Asimov's Robot stories.

Where golem labour and logic are used to supplant human functions, we find the consequences of putting trust in opaque systems. The consequences of these opaque systems in *Paper Minds* have parallels with real-world issues with AI technology and the physical harm it can cause. Similar to facial recognition in predictive policing, the likho are tasked with identifying criminals; but their results are less than perfect, and like blackbox algorithms, the likho cannot explain their reasoning to their masters. Similar to self-driving cars, nadler-carts provide autonomous transportation across the city; and despite their role in multiple deaths, the blame for these accidents rests not upon the designers, but upon the humans involved. Finally, similar to autonomous weapons and drones, clay fusiliers have been created in secret to protect the Castle; but the unreliable nature of their targeting, and the dehumanising nature of their use, makes them a significant threat. The presence of these issues in *Paper Minds* help to destabilise the mechanistic universe presented by the icon of the robot, as they expose the primacy of mechanism — machines do not 'think' better than humans do, they think differently, and when the logical conclusions of machines are treated as abstract truths there is a harmful impact on human lives.

5.2.1 The likho

A key source of misunderstandings in *Paper Minds* is the extent to which golems perceive the world differently to humans. How golem senses and cognition impact decision-making

³⁶⁷ Wolfe, *The Known and the Unknown*, 154, 57, 61.

can be seen in the likho.³⁶⁸ Originally created by Royal Golemsmith Tycho Brahe ‘to watch the stars’, the likho are ‘mock-human architectural sculptures’ that perform a role akin to surveillance cameras, ‘[f]ingering illegitimate golems for the Guild’ and ‘[seeking] traitors on behalf of the Castle’. The information gathered by the likho is collected on behalf of the Castle by the nachtkrapps, ‘black-clad servants of the Castle’ who ‘[pluck] ... scrolls from the heads of the likho by night’, replacing full scrolls with fresh ones in a manner akin to someone changing an SD card in a camera.³⁶⁹ But, unlike a camera, there are no pictures on a likho’s scroll to inspect. The intelligence gathered by the likho is more abstract. As entities made of clay with garnets for eyes, the sensory apparatus of golems is completely different, and it is implied that they perceive the world in a way entirely incomprehensible to humans.³⁷⁰ As seen in the labour of other golems, there remains enough overlap between human and golem senses for them to operate in a humancentric world.

But the likho are one step further removed than other golems from human cognition, and the routine changing of scrolls in the likho has a significant effect on how they think.³⁷¹ The impact of this is that the information that the Castle gleans from the likho is unreliable, and these misunderstandings have dire consequences. During a protest against golems in Old Town Square, ‘a young woman in a blue dress’ with a ‘white bonnet’ and ‘tangled russet hair’ is seen chanting the name of Matthias. When guards break up the protest, she escapes capture; but based on likho intelligence, similar-looking women are apprehended by the Castle, and three women — ‘[a]pproximations of what the likho had seen. One taller, one shorter. Screaming, all’ — are publicly executed by Castle guards in Old Town Square.³⁷²

This use of the likho has similarities with the use of intelligent technology in law enforcement such as facial recognition technology and predictive policing. Facial recognition

³⁶⁸ A derisive nickname by the public — ‘[e]yes of misfortune, an old legend’ — likho is the name of an evil Slavic fairy tale creature. Morrison, “Paper Minds,” 16; Mike Dixon-Kennedy, *Encyclopedia of Russian & Slavic Myth and Legend* (Santa Barbara: ABC-CLIO, 1998), 167-68.

³⁶⁹ Morrison, “Paper Minds,” 146, 16, 17. It is even insinuated that the likho are used within the Castle itself, specifically in the Diet Hall, ‘[w]here burghers [meet] to discuss the fate of Prague’. Ibid., 145-46.

³⁷⁰ While recounting ‘The Astonishing Tale of the Healer’s Daughter’ to Koz, Barvitijs states that he is of the opinion that that humans cannot imagine what it is like to perceive things as a golem. Ibid., 98.

³⁷¹ Ibid., 110. Where Pesach has the tools and awareness to communicate his perspective to his human compatriots, it is never shown in *Paper Minds* whether the likho have the ability to communicate what they see in a clear manner than a reading of the scrolls in their head could provide. Koz infers that Pesach is able to learn information from the likho near the Maisel Synagogue, but this information is based on identifying people wearing the yellow circle, which is established as a universal design feature of golems descended from Yosseele. Ibid., 170.

³⁷² Ibid., 32, 71, 86.

systems analyse images of people's faces, matching them against an existing database, but as Edward F. Loomis explains, the 'accuracy of these automated systems varies widely depending on the race and gender of the subject'. While '[p]roblems of error are not unique to facial recognition technology', their high error rates in identifying perpetrators for law enforcement limits their efficacy.³⁷³ Like surveillance cameras, likho are designed to watch and then provide an interpretation of what is seen; and like facial recognition systems, this information is intended to be objective. The likho are far from perfect, and innocent people are often imprisoned or executed on the strength of this imperfect information.³⁷⁴ How golem vision works is never made explicit. Golem eyes are unique — whereas both '[v]ertebrate eyes and modern cameras use a lens system', golem eyes are made of garnet.³⁷⁵ How golem eyes parse the world is also ambiguous. Given the reliability with which golems react to the yellow circle, the closest potential technological analogue appears to be that of recognition, in which 'an agent draws distinctions among the objects and encounters based on visual and other information'.³⁷⁶ But how these distinctions are drawn is never made clear.

This is further problematised by the method by which likho intelligence is gathered. Facial recognition systems require 'a database of face images with associated identities'.³⁷⁷ Likho intelligence is gathered by aggregating their thoughts — their scrolls are routinely collected by the nachtkrapps, taken to the Castle, and interpreted as an objective record of fact.³⁷⁸ But in this manner, golem scrolls are analogous to code, a spool of abstract symbols

³⁷³ Edward F. Loomis, "A Compendium of Law Enforcement Surveillance Tools: Facial Recognition Systems," in *The End of Trust*, ed. Dave Eggers, McSweeney's Quarterly (San Francisco: McSweeney's, 2018), 41; Philip A E Brey, "Ethical Aspects of Face Recognition Systems in Public Places," *Journal of Information, Communication & Ethics in Society* 2, no. 2 (2004): 104; Loomis, "A Compendium of Law Enforcement Surveillance Tools: Facial Recognition Systems," 42.

³⁷⁴ Morrison, "Paper Minds," 52, 86.

³⁷⁵ Russell and Norvig, *Artificial Intelligence*, 932. To mask their nature, several golems — the likho, Pesach, Barvitijs, and the Samuels — have painted garnet eyes. Morrison, "Paper Minds," 16, 42, 234, 52.

³⁷⁶ Russell and Norvig, *Artificial Intelligence*, 929.

³⁷⁷ Lucas D Introna and David Murakami Wood, "Picturing Algorithmic Surveillance: The Politics of Facial Recognition Systems," *Surveillance & Society* 2, no. 2/3 (2004): 178.

³⁷⁸ How information is collected from the likho scrolls is not made explicitly clear. As Lang reports to Koz, full likho scrolls go into Brahe's machine in the Kunstkammer, and come out empty, clean for reuse. Brahe's machine presents scrolls for reading, implying that they are read by someone who can read Golem; however, according to Lang, there are too many scrolls entering the machine to be read by single individual. The implication is that Barvitijs, who understands Golem and 'exist[s] on a spectrum of time beyond human comprehension', is the only one with the capabilities necessary to read all the likho scrolls. Morrison, "Paper Minds," 52, 226, 41.

inside a learning machine; and their outputs, which are not ‘transparent to inspection’, bear similarities to ‘black box’ machine learning algorithms, so-called because ‘[t]he vast majority of machine learning algorithms provide non-inspectable results ... you can’t look inside to see how the algorithm works’.³⁷⁹ Thus as AI ethicist David Danks points out, ‘[i]t is incorrect to think about machine learning as a “black box” that simply takes data as input and returns the truth’. A similar preferencing of the abstract can be seen in predictive policing, which as analysed by statistician Kristian Lum and political scientist William Isaac, uses AI software trained on existing police data to ‘to identify future offenders, highlight trends in criminal activity, and even forecast the locations of future crimes’. But this information is far from objective, ‘reproduc[ing] the patterns and unknown biases in police data’.³⁸⁰

It is critical to note here that both facial recognition and predictive policing reinforce systemic racism.³⁸¹ While *Paper Minds* depicts racism against the Jews of Prague, this racism is not enacted by the likho, or their use. In this respect, the likho differ from these technologies. But the likho do discriminate based on class, seeking in theory to punish the lower class for dissenting, and in practice punishing anyone in Prague who might be spotted on the streets. As Hamid Khan and Ken Montenegro argue, ‘[s]urveillance in policing has never been applied in a neutral manner; it has always been weaponized against those at the margins and those fighting for liberation’.³⁸² As items of technology that further the political goals of the Castle, its politics are ‘ultimately “inscribed” into the very materiality’ of the likho, making their gaze synonymous with the mercurial wrath of the state.³⁸³

5.2.2 Nadler-carts

³⁷⁹ Bostrom and Yudkowsky, “The Ethics of Artificial Intelligence,” 316; Judith Hurwitz et al., *Augmented Intelligence: The Business Power of Human-Machine Collaboration* (Milton: Auerbach Publishers, Incorporated, 2019), 51.

³⁸⁰ Danks, “Learning,” 159; Kristian Lum and William Isaac, “To Predict and Serve?,” *Significance* 2016, 16.

³⁸¹ As Lum and Isaac explain, ‘police-recorded data sets are rife with systematic bias’. Facial recognition technology also has a long history of being trained on racially biased datasets, leading to dangerous inaccuracies. According to Loomis, ‘[i]n tests conducted by a researcher at the MIT Media Lab, identifications of white males were demonstrated to be accurate 99 percent of the time, whereas the failure rate on dark-skinned females approached 35 percent’. “To Predict and Serve?,” 15; Loomis, “A Compendium of Law Enforcement Surveillance Tools: Facial Recognition Systems,” 41.

³⁸²

³⁸³ Myke Cole, Hamid Khan, and Ken Montenegro, “Should Law Enforcement Use Surveillance?,” in *The End of Trust*, ed. Dave Eggers, McSweeney’s Quarterly (San Francisco: McSweeney’s, 2018), 84; Introna and Wood, “Picturing Algorithmic Surveillance: The Politics of Facial Recognition Systems,” 180.

Nadler-carts, analogous to autonomous vehicles, are ‘the most common golem on the street’ in Prague in *Paper Minds*. Callously nicknamed by the Gentile public of Prague after the Jewish epithet ‘nadler’, nadler-carts are a ‘slave-cart hybrid’ with the front half of a horse sloping from the midsection into a ‘chimeric carriage’ backend capable of carrying people or cargo. Designed to invoke the horse-drawn carriages they have replaced, nadler-carts are painted in a broad array of horse coat colours, from buckskin to cremello to dun, but the Golemsmith Guild still keeps older, ‘pre-equine’ nadler-carts in circulation.³⁸⁴ Whereas Rudolfine Guild nadler-carts are for Castle business only, Golemsmith Guild nadler-carts are available to the public on every day but the Shabbat, able to be either flagged down either on the street or hired at a ‘statuary’, a fenced area designed to act as both a storage area and a taxi rank.³⁸⁵ Nadler-carts can be hired from the street, understanding and responding to voice commands, with knowledge of both valid and invalid transport options, and the ability to navigate around traffic on the road. They can even be hired for a trip with multiple stops, intelligent enough to wait at a location when asked.³⁸⁶

This intelligent behaviour matches some of the promises of autonomous vehicles, in that nadler-carts obviate the organic failings of existing vehicles – in this case, horses and horse-drawn carriages. Nadler-carts have quicker reaction times, they generate less waste, and they can independently transport passengers and freight without a human driver aboard.³⁸⁷ However, much like autonomous vehicles, these systems cannot completely prevent accidents from occurring. Koz witnesses a hurried nadler-cart almost trampling an old Jewish woman, and at the nadler-cart stampede known as the Riot of Krocín Fountain, some Jews were wounded and many Protestants were trampled to death.³⁸⁸ While autonomous vehicles are currently uncommon, vehicles with autonomous driving systems have also caused multiple deaths, as recently as this year.³⁸⁹ As Daniel Fagnant and Kara

³⁸⁴ Morrison, “Paper Minds,” 15, 14, 48, 17, 70, 183, 68.

³⁸⁵ Ibid., 133, 15, 83. Though, as Koz shows, the cost to hire one is not always affordable by all. Ibid., 16.

³⁸⁶ Ibid., 85, 70, 74. Nadler-carts are capable of taking their passengers to any street location except Jewish Town (where golems are unwelcome), and Old Town Square, which they have been barred from crossing since the Riot of Krocín Fountain. Ibid., 17, 28.

³⁸⁷ Daniel J Fagnant and Kara Kockelman, “Preparing a Nation for Autonomous Vehicles: Opportunities, Barriers and Policy Recommendations,” *Elsevier Ltd* 77, Transportation Research Part A (2015): 169.

³⁸⁸ Morrison, “Paper Minds,” 19-20, 58.

³⁸⁹ Notable deaths resulting from the use of autonomous vehicles that have received attention in the press include Joshua Brown in 2016, Elaine Herzberg in 2018, and Will Varner and Everette Talbot in 2021. Evan Ackerman, “Fatal Tesla Self-Driving Car Crash Reminds Us That Robots Aren’t Perfect,” *IEEE Spectrum*, 1 July 2016; Daisuke Wakabayashi, “Self-Driving Uber Car Kills Pedestrian in Arizona, Where Robots Roam,” *The New*

Kockelman explain, ‘designing a system that can perform safely in nearly every situation is challenging’. Accurately perceiving the surrounding environment remains a challenge, with problems including ‘recognition of humans and other objects in the roadway’, changing visibility caused by weather, and difficulties in sensing the composition of objects.³⁹⁰ Computer vision differs from that of humans, and touched upon in the previous section, golem vision differs from ours as well. As Janai et al point out, for autonomous vehicles to ‘operate in complex dynamic environments’, they must not only perceive their environment, but must also be able to ‘generalize to unpredictable situations’.³⁹¹ Today, these problems remain unsolved — surveying the state of autonomous driving technology in 2020, Yurtsever et al. note that ‘[w]hile the promise of automated driving is enticing and already marketed to consumers ... there remains clear gaps in the research’.³⁹²

But despite their bloody history, nadler-carts remain in widespread service across Prague. Indeed, the bloodshed of the Riot of Krocín Fountain is not attributed by the greater public to the nadler-carts, or to the Golemsmith Guild. Rather, the blame for the stampede is assigned to a human interlocutor — Mates Vorel, a burgher of Old Town, who was believed to have caused to the stampede and was trampled to death in it.³⁹³ This is an example of what cultural anthropologist Madeleine Elish describes as a ‘moral crumple zone’, a social safety measure which assigns blame to the organic to protect the validity of the machinic, ‘protect[ing] the integrity of the technological system, at the expense of the nearest human operator’. As a tireless transport service that requires very little maintenance, nadler-carts are assuredly lucrative for the Golemsmith Guild. Thus the blame for Krocín Fountain is

York Times, 19 March 2018; Jackie Salo, “Victims in Deadly Houston Tesla Crash Identified,” *New York Post*, 21 April 2021.

³⁹⁰ Fagnant and Kockelman, “Preparing a Nation for Autonomous Vehicles: Opportunities, Barriers and Policy Recommendations,” 169, 69-70.

³⁹¹ Joel Janai et al., “Computer Vision for Autonomous Vehicles: Problems, Datasets and State of the Art,” *Foundations and Trends in Computer Graphics and Vision* 12, no. 1-3 (2017): 11. Addressing the similarities between programming moral algorithms for autonomous vehicles and the trolley problem, Sven R. Nyholm and Jilles Smids explain that ‘the literature on the trolley problem is not the best, nor perhaps even a particularly good, place to turn to for source materials and precedents directly useful for the ethics of accident-algorithms for self-driving cars’. According to Andrew Chatham, an engineer working on autonomous vehicles for Google in 2016, ‘the answer is almost always “slam on the brakes”’. Sven R. Nyholm and Jilles Smids, “The Ethics of Accident-Algorithms for Self-Driving Cars: An Applied Trolley Problem?,” *Ethical Theory and Moral Practice* 19, no. 5 (2016): 1287; Alex Hern, “Self-Driving Cars Don’t Care About Your Moral Dilemmas,” *The Guardian*, 23 August 2016.

³⁹² Ekim Yurtsever et al., “A Survey of Autonomous Driving: Common Practices and Emerging Technologies,” *IEEE Access* 8 (2020): 58462. (Yurtsever et al 2020, p. 58462)

³⁹³ Morrison, “Paper Minds,” 29.

assigned to Mates Vorel. More than just a scapegoat, Vorel is demonised for his involvement in the carnage; and even when he is exonerated by Koz, this is only because Philip Lang is discovered to be the actual instigator of the stampede. In both situations, ‘the error of human designers or systems architects’ is deflected, as the fault is seen to lie with a human operator. This assignment of blame is problematic because autonomous vehicles ‘distribute control, often in obfuscated ways, among multiple actors across space and time’. Essential questions — ‘Where does the agency of the engineer end and the operator begin? How does one delineate the boundaries of a system that is necessarily socio-technical?’ — are still being answered. The act of inciting a nadler-cart stampede is not an act that is free of blame, but it should not be the only source, as ‘the causes of accidents are multiple and pointing to one error is usually a vast overstatement of the problem’.³⁹⁴

5.2.3 Clay fusiliers

While not publicly known in *Paper Minds*, one reliable method of identification used by the golems of Prague is the yellow circle. The yellow circle is a cloth badge that marks an individual as Jewish, a discriminatory marker which the real-world Jews of Prague were required by law to wear during the sixteenth and seventeenth centuries.³⁹⁵ However, as Koz is led by Pesach to discover, the presence of the yellow circle on an individual prevents the golems of Prague from intentionally harming that person. The mass dissemination of this design feature is a consequence of stolen Jewish labour. All golems made by the Golemsmith Guild and the Rudolfine Court are created by mimicking the Maharal’s technique, and in copying this technique, a central design feature of Yossele is replicated — the inability for a golem to willingly cause harm to a Jew. Golems produced by the Rudolfine Court and the Golemsmith Guild have been designed not to defend themselves, and to flee if attacked.³⁹⁶ But, as demonstrated by the Riot of Krocín Fountain, this design feature is not infallible.

³⁹⁴ Madeleine Elish, “Moral Crumple Zones: Cautionary Tales in Human-Robot Interaction (Pre-Print),” *Engaging Science, Technology, and Society* 5 (2019): 41, 51, 49, 54, 50.

³⁹⁵ Described by Iveta Cermanová & Alexandr Putík as ‘the Jewish badge of shame’, there were multiple iterations of these visual markers, ranging from hats and hoods to yellow bands or strips of cloth. First introduced in 1215 by the Fourth Lateran Council, this discriminatory legal requirement was finally done away with by Joseph II in 1781. Cermanová and Putík, “Jews in the Bohemian Lands, 10th - 18th Century.”

³⁹⁶ Morrison, “Paper Minds,” 197, 209, 19-20. The creation of new golems was made possible by the dissection of Yossele and the stolen secrets of the sofrim, two acts perpetrated by Arcimboldo at the request of Rudolf.

This programmed reaction to yellow circle is particularly relevant when considering golems that have been designed to be capable of violence: ‘Rudolf’s golem army’, the clay fusiliers. Developed in secret to defend the Castle against Matthias, clay fusiliers are ‘exquisite’ Rudolfine golem soldiers armed with an arquebuses.³⁹⁷ Analogous to autonomous weapons, clay fusiliers are designed to extend military reach while reducing unwanted risk to human life.³⁹⁸ In this manner, clay fusiliers mirror real-world discussions about both autonomous weaponry and drone technology, which are two intertwined fields of study. Using the definition provided by ethicist Alex Leveringhaus, clay fusiliers fulfil the criteria for autonomous weapons: ‘(1) they are uninhabited, (2) they need to be pre-programmed, and (3) they can, once pre-programmed, carry out more or less complex military acts without further assistance from an operator’.³⁹⁹ Similar to drones, clay fusiliers could be considered ‘unmanned’ weapons, in that they are ‘uninhabited’.⁴⁰⁰ But as Katherine Chandler explains, ‘unmanning is never achieved’ in drones, as the use of drone warfare is never decoupled from the ‘political context’ the drone is animated by.⁴⁰¹ The same can be said of autonomous weapons, which Leveringhaus points out ‘still needs to be pre-programmed by a human operator’. But even with this programming, there remains the risk of error. Current autonomous technology cannot promise to ‘distinguish between legitimate and illegitimate human targets’; but neither can drones. According to Rhee, drone warfare is rife with ‘dehumanizing classifications and misclassifications’, enacting a ‘reduction of

But as Koz points out to Arcimboldo, when Arcimboldo retro-engineered the creation of a golem, it was an act of mimicry without full comprehension: ‘You didn’t learn who Yossele *was*, you didn’t comprehend him. You only learned what was needed to copy how a golem thinks. And now everyone in the Guild copies you’. Ibid., 208, 14-15, 09.

³⁹⁷ Ibid., 211, 198, 40.

³⁹⁸ Discussing autonomous weapons and the concept of *jus in bello*, ‘justice in the conduct of war’, and the criterion of distinction, which ‘restricts the methods that can permissibly be used during warfare’, Alex Leveringhaus explains that the benefit of autonomous weapons is that they ‘are not designed to be indiscriminate’, and that their use can potentially ‘minimise collateral damage by containing the side effects of kinetic force better than comparable weapons’. Alex Leveringhaus, *Ethics and Autonomous Weapons* (London: Palgrave Macmillan UK, 2016), 12, 16.

³⁹⁹ Ibid., 3, 4. Crucially, having the pre-existing intelligence of golems, clay fusiliers would be capable of ‘learn[ing] about their environments and adjust[ing] their behaviour accordingly, as well as relat[ing] a complex host of targeting criteria when executing an order’. These capabilities are what makes future autonomous weapons distinct from existing autonomous weaponry, which are less capable of adapting and interpreting behaviour. Israel’s Iron Dome, for example, is ‘heavily automated ... capable of carrying out complex tasks without direct guidance from an operator’. Ibid., 58, 4.

⁴⁰⁰ Leveringhaus prefers ‘uninhabited’ over ‘unmanned’ for this very reason. Ibid., 3. Emphasis removed.

⁴⁰¹ Katherine Chandler, *Unmanning: How Humans, Machines and Media Perform Drone Warfare* (New Brunswick: Rutgers University Press, 2020), 2. (Hereafter referred to as *Unmanning*.)

complexity and difference' through cultural homogenisation and misidentification, all in the name of the 'cybernetic impulse to render all things not just knowable, but knowable in specifically *mathematical*'. Clay fusiliers are said to also suffer from the same classificatory errors — according to Arcimboldo, '[g]olems are ill-disposed to human combat' because '[t]hey don't understand what they're killing'.⁴⁰²

This dehumanisation has its mirror in the law demanding that the Jews of Prague be marked with the yellow circle. In the same way that drone operators are asked to 'reduc[e] heterogeneous individuals to a singular Enemy Other', the labelling of Jews with the yellow circle marks them as denigrated outsiders, quickly identifiable by sight.⁴⁰³ On its face, it might appear that the secret of the yellow circle inverts this relationship, putting Jews in a position of power. But the yellow circle is not *itself* Jewishness — just the state-mandated marker for it. As Jean d'Aragon proves, the yellow circle is an exploitable feature, seen in his use of a yellow circle to ward off the Samuels while setting up the blood libel. Furthermore, no amount of programmatic protection is considered enough for the Jews by Barvitius. Barvitius, who claims to 'still have great feeling for' for the Jews of Prague, cannot guarantee their protection in the coming conflict with Matthias — a conflict in which clay fusiliers, like autonomous weapons, will find it 'constitutively difficult to distinguish between combatants and civilians'.⁴⁰⁴ Clay fusiliers might balk at shooting those wearing the yellow circle, but this will not protect the Jews on the battlefield from the horrors of war; nor will the inability to fire at will provide absolute protection for the Castle.

Like nadler-carts and the likho, clay fusiliers have been designed to replace human labour — in this case, the labour of the soldier — because their specialised form is considered superior to the general organic form of the human. But as *Paper Minds* shows, the logic of golems is not without error, problematising any purported mechanical superiority over the organic. The yellow circle represents a liability, an unwelcome restriction against an insurgent populace — and as likho and nadler-carts demonstrate, the consequences of golem error are not borne by golems, but by humans. Through the clay fusiliers, the Castle and the

⁴⁰² Leveringhaus, *Ethics and Autonomous Weapons*, 3, 120; Rhee, *The Robotic Imaginary*, 142; Morrison, "Paper Minds," 211.

⁴⁰³ Rhee, *The Robotic Imaginary*, 141.

⁴⁰⁴ Morrison, "Paper Minds," 197, 242; Derek Gregory, "From a View to a Kill: Drones and Late Modern War," *Theory, Culture & Society* 28, no. 7-8 (2012): 200.

Golemsmith Guild threaten to ‘perform politics through a disavowal of human action’, placing human life in the hands of technology considered beyond reproach.⁴⁰⁵

5.3 Anthropomorphic: Golem people and bodies in *Paper Minds*

Golem embodiment is a foundational element of *Paper Minds*, as the physical composition of golems invites comparison between golems and the icon of the robot, and the assumed value of certain golem bodies invites reflections upon the conditional nature of personhood. As physical entities animated by specialist language, golems appear analogous to robots, invoking the icon of the robot; a comparison deepened by the historic disposability of golems. But unlike robots, the cognition of golems of *Paper Minds* is not purely dependent upon abstract words. Like their human creators, golems think not just with their minds, but also with their bodies. Through their embodiment, the golems of *Paper Minds* dispel the primacy of abstract thought over physical form, calling into question one of the icon of the robot’s key aspects — the valuation of the logical and machinic over the illogical and organic.

Golem personhood is intertwined with golem embodiment. As explained in section 4.1, the history of the golem body is that of the first human, seen in the creation of Adam and the potential translations of ‘golem’ as either ‘formless matter’ or ‘embryo’.⁴⁰⁶ In the manner of the earliest golems, humaniform golems in *Paper Minds* are passable simulacra of the human, able to inhabit human spaces (and human privileges) in a way that other golems cannot. However, for Pesach and the Samuels, this act of impersonation remains limited by their golemic nature. Historically, golems are considered incomplete beings, lacking the essential essence of humans.⁴⁰⁷ This incompleteness presents outwardly in two ways. The first is the presence of misunderstandings, which stem from an inability for the golem to correctly interpret orders. The second is the golem’s inability to communicate, which is formalised in the absence of a tongue.⁴⁰⁸ Both human-shaped and humaniform golems of

⁴⁰⁵ Chandler, *Unmanning*, 127.

⁴⁰⁶ Idel, *Golem*, 36; Scholem, *On the Kabbalah and Its Symbolism*, 161.

⁴⁰⁷ *On the Kabbalah and Its Symbolism*, 166.

⁴⁰⁸ As noted in section 4.1 of chapter 4, there are tales in which a golem has the power of speech, such as the golem created by Jeremiah and Ben Sira. Overall, however, ‘[t]he dominant tradition of the golem is of a

Paper Minds continue this tradition. The mass-produced golems are made without tongues, and golem misunderstandings are exhibited in the early actions of Pesach, as well as being culturally present in the popular stories of Yossele.⁴⁰⁹ Through these traits, both human-shaped and humanoid golems signal their golemic nature. But misunderstandings and limits to communication can also be found in humans, and thus aligning these traits with golemry can be interpreted as aligning them with inhumanity.

But *Paper Minds* encourages a definition of personhood that is not dependent upon an exclusionary definition of what is human. Pesach is psychologically othered in a manner similar to Yossele, acting unresponsive, and misunderstanding Kozilek's orders. But this is demonstrated to be the result in the difference in perspective and cognition — like *Ancillary Justice*, *Paper Minds* does not rely upon discriminatory depictions of neurodivergence. Furthermore, while Pesach has been gifted a tongue, he primarily communicates through mimicry, not verbally expressing words of his own. As Kerslake explains, marking an entity as 'Other' through differences in speech is a mainstay in SF.⁴¹⁰ But Pesach can communicate with both humans and golems through the medium of touch; and as *Paper Minds* ends, Pesach gives tongues to the golems of Prague before speaking with words of his own, hinting at an emancipatory future of verbal communication between golems and humans.⁴¹¹ *Paper Minds* recognises the inherent value in difference — Pesach does not think, act, or perceive the world like the humans around him, but he is a person, and his perspective is valid.

Golem bodies and golem people in *Paper Minds* destabilise the supposition that humaniform mechanisms are destined to supersede humanity. Assessing golems in the anthropomorphic category of Wolfe's icon of the robot, humanoid golems can be seen to imitate human functions, as they are made in the image of their creators and capable of making decisions. For the humanoid golems produced by the Golemsmith Guild and Rudolfine Court, this imitation is a product of their humanoid form; they are obvious artificial humanoids performing labour that would otherwise be performed by humans.

paradoxically silent creature', as seen in the silence of Yossele in Rosenberg. Graham, *Representations of the Post/Human*, 92.

⁴⁰⁹ For the consequences of golem misunderstandings in nonhuman golems, see section 5.2.

⁴¹⁰ Kerslake, *Science Fiction and Empire*, 11.

⁴¹¹ Morrison, "Paper Minds," 263.

However, fully humaniform golems appear human enough to pass as human, and thus can supersede human functions. But by demonstrating the unique embodiment and personhood of golems, *Paper Minds* establishes golems as unique and valid entities — not striving to be human, but to be accepted for what they are. As Rhee points out, how we define the anthropomorphic inhuman reflects upon how we define humanity. Pesach and his fellow golems push against the prescriptive definitions of personhood that accompany the mechanistic universe. Like Rhee, my work looks to ‘reconfigure the human outside of dehumanizing demands of recognizability’, seeking an open-ended definition of the human that does not, through narrow and politicised definitions of humanness, exclude those who exist outside the norm.⁴¹²

5.3.1 Bodies as disposable machines

Golems in *Paper Minds* invite comparison with the icon of the robot through their physical properties. As explained in chapter 4, golems in folklore are bodies of clay, moulded into a humanoid shape and brought to life by the ‘animating power of language’.⁴¹³ This has invited a simplistic contemporary comparison between golems and robots, as robots are ‘physical device[s] capable of autonomous or pre-programmed [behaviour]’ whose actions are dictated by the words that animate them.⁴¹⁴ This association between golems and robots is strengthened further through the mass production and commodification of golems by the Rudolfine Court and the Golemsmith Guild, as well as the language used to describe golem technology. The ‘clay bodies and paper minds’ of golems are described in terms that evoke robotics, with silver-inlaid scrolls suggestive of circuitry, ‘[c]orrosive blood’ in the chest suggestive of the acid in batteries, and malleable clay flesh suggestive of a non-Newtonian

⁴¹² Rhee, *The Robotic Imaginary*, 2, 5.

⁴¹³ Graham, *Representations of the Post/Human*, 89.

⁴¹⁴ Phil Husbands, “Robotics,” in *The Cambridge Handbook of Artificial Intelligence*, ed. Keith Frankish and William M Ramsey (Cambridge: Cambridge University Press, 2014), 269. Norbert Wiener, the creator of cybernetics, draws a well-known comparison between machines and golems. It should be noted, however, that shallow comparisons between premodern and modern artificial people can betray a ‘voracious ahistoricism’. As Kakoudaki points out, where robots ‘allegorize people’s relationship to tools’, the creation of golems represents the intention to ‘materialize a space between the human and the divine’. Wiener, *God & Golem, Inc.*, 95; Kakoudaki, *Anatomy of a Robot*, 71-43. I am certainly guilty in *Paper Minds* of relying upon the well-established allegorical link between golems and robots. But by never making the technique for golem creation explicit, and by asserting the primacy of the organic within the icon of the robot, I argue that that within my golems there remains ample room for divinity.

dilatant fluid. The content of scrolls, written in Golem — a unique language based on Hebrew — is discussed in terms used for both minds and computer programs, containing memory, able to ‘learn’ and, like machine learning algorithms, unwittingly accrue biases.⁴¹⁵

At first glance, the golems of *Paper Minds* appear to be reliant upon the same mechanistic universe as the icon of the robot — their clay bodies only coming alive when inhabited with words, the mind abstract and replicable, the body disposable. But as with Breq in Leckie’s *Ancillary Justice*, the embodied nature of golems in *Paper Minds* refutes the mechanistic zero world by demonstrating the role of embodiment in cognition, as golems are shown to think with both their scrolls and their clay. As Adara and Miriam explain, the minds of golems are more than ‘just words on a page’ — the clay of their bodies plays a vital role in the formation of their identity. This can be seen in Pesach, whose body was made from that of another golem. While Pesach’s scroll is new, his flesh originates from the exhumed body of the golem of Chełm, which was made by Eliyahu Ba’al Shem in 1583 to fight anti-Semitism.⁴¹⁶ Unlike Arnold’s account detailed in section 4.2, the golem of Chełm in *Paper Minds* was dangerously violent, reminiscent of other task-based golems that ran amok.⁴¹⁷ Far from being an inert substance, the flesh of this golem contains echoes of the golem of Chełm’s violent nature, which can be read within Pesach’s impulsive initiations of violence.⁴¹⁸ The golems of *Paper Minds* are embodied entities, their consciousness co-created by the language in their heads and their clay flesh. This refutes the mechanistic zero world, which places pattern over form; and by drawing attention to the value of the body, *Paper Minds* refutes the body as a disposable container for the self, where the self is wholly representable by abstract symbols.

Paper Minds also demonstrates embodiment through the unique physicality of golems. While golems are valuable in *Paper Minds*, they are objects, and thus disposable; a

⁴¹⁵ Morrison, “Paper Minds,” 211, 17, 14, 130, 51, 71, 05. For a discussion on how contentious the use of the term ‘learning’ is in relation to computers, see S G Shaker, “The Decline and Fall of the Mechanist Metaphor,” in *Artificial Intelligence: The Case Against*, ed. Rainer Born (Kent: Croom Helm, 1988), 74-79.

⁴¹⁶ Morrison, “Paper Minds,” 106, 07, 76.

⁴¹⁷ Scholem, *On the Kabbalah and Its Symbolism*, 200-01. SF texts that feature anthropoidal automata that have similarly ‘run amok’ include *Illuminae* (2015), *Avengers: Age of Ultron* (2015), *Ex Machina* (2015), *Westworld* (both the original 1973 and the TV show from 2016-present), and the *Portal* series of video games (2007-2011). Kaufman and Kristoff, *Illuminae*; Whedon, *Avengers: Age of Ultron*; Garland, *Ex Machina*; Crichton, *Westworld*; Nolan and Joy, *Westworld*; *Portal*, Valve Corporation, United States; *Portal 2*, Valve Corporation, United States.

⁴¹⁸ Morrison, “Paper Minds,” 50, 88-89, 118.

state of objecthood augmented by the inevitable destruction of golems in folklore and classical texts. Where the aim in golem creation is to achieve ecstasy, the golem is created and annihilated within the same technique; in the case of the task-based golem, the story typically ends with the destruction of the golem. This objecthood can be seen in *Paper Minds* in the death of a missive golem in an alley — while this act is troubling to Koz, haunting him, he can initially discard it as unimportant.⁴¹⁹ Like robots today, no matter how poignant their passing — such as the last message of Opportunity, the Mars Rover, or the discontinued remote consciousness of Jibo, the home robot marketed to children — their deaths remain the death of objects, not people.⁴²⁰

Furthermore, as technological objects, the shapes of golems dictate their role, and their capacity within that role is dictated by their shape.⁴²¹ This is most obvious in the nonhuman golems covered in section 5.2, whose physical forms are tailor-made for their tasks; but this also applies to human-shaped golems, whose origins and role impacts their level of aesthetic refinement. But the humaniform golems — Yossele, Pesach, the Samuels, and Barvitius — have an outward appearance sophisticated enough to allow them to pass as human, as Yossele was concealed by the Maharal amongst the Jews of Prague, acting in the role of a shamesh and then a porter.⁴²²

The embodied nature of bodies — their shape, their presentation — impacts the world around them, the very space they inhabit. As Ahmed explains, bodies are ‘shaped by contact with objects and with others, with “what” is near enough to be reached’, noting that ‘[w]hat gets near is both shaped by what bodies do, which in turn affects what bodies can do’. The objects and others within reach of our bodies has an impact *on* our bodies; but ‘[w]hat is reachable is determined precisely by orientations that we have already taken ... [i]ndeed, the history of bodies can be rewritten as the history of the reachable’. From individual to individual, what is within reach is not universal, seen in the additional reach

⁴¹⁹ Ibid., 173, 17-18.

⁴²⁰ Jason Rhian, “What Did Opportunity’s ‘Last Words’ Actually Mean?,” *SpaceFlight Insider*, 17 February 2019; Brian Heater, “The Lonely Death of Jibo, the Social Robot,” *TechCrunch*, 5 March 2019.

⁴²¹ Drawing on Heidegger, Ahmed describes technological objects thus: ‘[T]he object itself has been shaped for something, which means it takes the shape of what it is for. The object is not just material, although it is material: the object is matter given some form or another where the form “intends” toward something’. Sara Ahmed, *Queer Phenomenology: Orientations, Objects, Others* (Durham: Duke University Press, 2006), 46. (Hereafter referred to as *Queer Phenomenology*.)

⁴²² Morrison, “Paper Minds,” 3, 65.

afforded white people in colonial spaces.⁴²³ As humaniform anthropoidal automata, golems exist on a borderland, ‘at once not human and, through explicit anthropomorphic practices, [modelled] on the human’. On the one hand, they are afforded the privileges of the human shape; on the other hand, they are considered objects built for labour, ‘occupy[ing] that social and political position by default and carry[ing] its requirements and limits on their very bodies’. Humaniform golems carry with them the history of being ‘purely instrumental’, like robots; they are ‘born adult’ and cast immediately into their ‘preordained social or workplace functions’.⁴²⁴ But their veneer of humanity is undone by their objecthood, and as Vint reminds us, ‘[c]lassifying bodies as non-human is a well-established justification for condoning their abuse and exploitation’.⁴²⁵ But through Pesach’s journey, my novel argues for the validity of golemhood; not as objects that are like humans, but as unique entities, unfamiliar.

5.3.2 Machines as othered people

The golems of *Paper Minds* signal otherness in a manner similar to the original Jewish golem.⁴²⁶ This legacy is demonstrated through the tales of Yossele, which in the twenty years since Yossele’s decommissioning, have become popular throughout Prague.⁴²⁷ While the humaniform Yossele was able to pass for human, he remained identifiably other in two ways: he was prone to disobedience because he misunderstood instructions, and he lacked the ability to communicate through speech. The new golems of *Paper Minds* are based on Yossele and are thus expected to bear these same signifiers of otherness. However, while golem misunderstandings are evident in non-humanoid golems like nadler-carts and likho (seen in section 5.2), the kind of misunderstood instructions seen in ‘How Yossele the Golem

⁴²³ Ahmed, *Queer Phenomenology*, 54, 55. For humans, a major determining factor is race. Interrogating the colonialism of the West, Ahmed explains that ‘[c]olonialism makes the world “white,” which is of course a world “ready” for certain kinds of bodies, as a world that puts certain objects within their reach’. Ibid., 111.

⁴²⁴ Rhee, *The Robotic Imaginary*, 4; Kakoudaki, *Anatomy of a Robot*, 117.

⁴²⁵ Vint, *Bodies of Tomorrow*, 189-90.

⁴²⁶ The question of whether the golems of *Paper Minds* should be considered people by the standards of Judaism, either in 1610 or today, is not one that I have the authority to answer. The golems of *Paper Minds* are certainly a product of Judaism — they were originally created by a Jewish technique, they do not work on the Shabbat, they have an innate duty towards those who wear the yellow circle, and Pesach goes out of his way to protect the Jews of Prague — but neither *Paper Minds*, nor the golems or Jews within it, state explicitly that these golems are *themselves* Jews.

⁴²⁷ Morrison, “Paper Minds,” 14.

Carried Water for Passover & Caught Fish for Rosh Hashanah' are absent from the day-to-day operations of human-shaped golems.⁴²⁸ Furthermore, while these new golems of Prague lack the ability to communicate through speech, Yossele could still communicate with the Maharal through written language.⁴²⁹ The golems mass-produced by the Rudolfine Court and the Golemsmith Guild are afforded no such opportunity, expected to be one-way receptors of human-to-golem communication.

These two properties of human-shaped golems — increased obedience and a decreased ability to communicate — bring golems into conversation with the fantasy of robotic labour. Similar to Leckie's ancillaries, the mass-produced golems of *Paper Minds* are an example of Kakoudaki's 'silent abject slave', providing 'abundant and impersonal robotic [labour]' without complaint or comment. Industrialised and mass-produced, the folklore of the task-based golem is transmuted into 'a perfectly successful roboticism' in which both disobedience and communication have been suppressed.⁴³⁰ Like the hosts of the television series *Westworld* (2016 – present), the synths of television series *Humans* (2015-2018), and the androids of the video game *Detroit: Become Human* (2018), they are machinic enough to be human, and thus human enough to be slaves.⁴³¹

But through its humaniform golems, *Paper Minds* shows that while differences in understanding and communication can be signifiers of otherness, these are not valid grounds on which to deny the other their personhood. Unlike the flawless servitude of human-shaped golems, humaniform golems in *Paper Minds* are prone to misunderstanding in a manner similar to Yossele. Pesach struggles initially to parse simple orders, acting upon

⁴²⁸ Ibid., 35-38. Misunderstandings are more commonly seen more in non-humanoid golems, such as the likho misidentifications covered in section 5.2.1, and the piebald nadler-cart repeatedly hired by Koz, whose erratic behaviour paints it as '[s]omehow more than animal, somehow less'. Ibid., 83.

⁴²⁹ Yossele communicates with the Maharal using 'sketched symbols' in 'The Attack on Yossele the Golem' in *Paper Minds*, an act similar to Yossele providing a written account to the Maharal in Rosenberg's text. Ibid., 194; Rosenberg, *The Golem and the Wondrous Deeds of the Maharal of Prague*, 136.

⁴³⁰ Kakoudaki, *Anatomy of a Robot*, 132.

⁴³¹ Nolan and Joy, *Westworld*; Vincent and Brackley, *Humans*; *Detroit: Become Human*. It bears repeating that the anthropomorphic forms of human-shaped and humaniform golems entangles this servitude with questions of personhood, evoking 'historical and cultural memories of conflict and oppression', such as chattel slavery. As Kakoudaki reminds us, 'the eighteenth and nineteenth centuries are but minutes ago'. Furthermore, Gelbin explains that the inability for the golem to speak was a feature used to denigrate Jews through fiction, the golem's silence representative of their 'flawed mode of discourse'. Kakoudaki, *Anatomy of a Robot*, 118, 31-32; Gelbin, *The Golem Returns*, 23. However, I argue that the golems of *Paper Minds* are valorised for the difference; and while they are innately different to humans, with different modes of communication, these are signifiers not of deficiency, but of an otherness that is acknowledged and celebrated in the text.

a very literal interpretation of instructions.⁴³² According to Barvitius, Yossele's interpretations of orders also stemmed from an inclination towards the literal — he was asked to fetch water, but not asked when to stop; he was told that he didn't need to catch fish, so he threw away the fish he had caught.⁴³³ These golems are doing what they are told, but in their naivete, they lack the additional context to fully understand what is being asked of them. But all golems, from nonhuman to human-shaped to humaniform, have minds that are radically different from that of humans.⁴³⁴ As mentioned in section 5.2, golem senses differ from that of humans, and there are fundamental differences in how golems perceive and process the world. As Barvitius explains to Koz, golem cognition differs so fundamentally from human cognition that neither race can assume any true comprehension of the other's mental states.⁴³⁵ Adara describes cognition in terms that are evocative of computer science, explaining to Koz that a golem's scroll 'acts not just as a facilitator' for thought, 'but an aggregator'.⁴³⁶ This use of the mechanistic metaphor to describe golem cognition moves it into the familiar realm of the icon of the robot; as covered in chapters 2 and 3, human minds are not computers. An explanation of the processes behind golem thought does not translate into an understanding of lived experience.

Furthermore, golem communication, another form of othering, is also beyond human comprehension. The mass-produced golems of Prague are denied the chance to express themselves to humans through language, which further paints them as other. Denied the 'authority and power' of shared language with humans, golems are 'doubly damned: unable to speak because of difference and, "lacking" speech (and therefore power), unable to defend that difference'.⁴³⁷ But as Pesach demonstrates, golems can communicate through touch. Pesach regularly initiates this golem-to-golem communication on the streets of Prague, 'swapping stories' with them shaking their hands or '[b]rushing thick fingertips

⁴³² When Koz asks Pesach to '[s]top looking at everything', he closes his eyes; when Koz asks Pesach to punch an assassin, the unanticipated force of Pesach's blow launches the assassin out of a high window to his death. Maisel also describes the Samuels as being 'slow to think', which is reminiscent of how the shamesh Avrohom viewed Yossele. Morrison, "Paper Minds," 47, 120, 24, 37.

⁴³³ Ibid., 35-37.

⁴³⁴ Ibid., 107. According to Adara, the likho are '[b]arely awake. Closer to insects than livestock'. Ibid., 110.

⁴³⁵ Ibid., 240. However, Barvitius also claims that, to him, humans are 'no more complex ... than ... the Astronomical Clock', which allows him to manipulate and coerce humans with ease. Ibid.

⁴³⁶ Ibid., 105, 07.

⁴³⁷ Kerslake, *Science Fiction and Empire*, 21.

against their clay flanks'.⁴³⁸ But this golem-to-golem communication predates Pesach. Unknown to the human masses, the golems of Prague communicate en masse during the Shabbat, congregating through the medium of 'the clay below' via their shared contact with the ground. The clay below is where golem culture resides, inaccessible to and completely unknown by humans.⁴³⁹

These two elements — golem misunderstandings and golem communication — find their home in Pesach, who validates these traits with both humans and golems. Unlike the other golems of Prague, Pesach has been built with a tongue.⁴⁴⁰ Pesach is mostly taciturn, but when he does speak, it is not in the same manner as his human compatriots; he only communicates verbally through mimicry, repeating overhead statements with high fidelity.⁴⁴¹ These differences in communication methods contribute to the othering of Pesach, painting him as 'less than human or, at best, child-like and insufficiently mature'.⁴⁴² Pesach also differs psychologically from the humans around him, a humaniform entity that never explicitly explains his perspective or thoughts. This initially scares and infuriates Koz, who finds Pesach's misunderstandings and lack of communication alienating. Pesach appears amicable and naive, '[a] stranger in a strange land', oblivious to human social norms.⁴⁴³ While this grants Pesach 'a certain approachability ... to elicit sympathy and human interest', his prodigious size and taciturn nature reinforce his position as the 'unapproachable' Other. As noted by Kerslake, '[t]he most 'challenging' monster cannot be distinguished by sight;

⁴³⁸ Morrison, "Paper Minds," 55, 63, 46. Koz begins to notice this behaviour amongst other golems over the course of the novel. Koz watches the nadler-carts in the Guild statuary beside Dead Horse Market make 'listless golem movements' while being inspected by a troubled maintenance worker, the nadler-carts later appearing 'restless ... Nudging their heads against one another'. Later, during the assault on Jewish Town, Pesach's instructions to the golems on the frontline are spread through the golem crowd using touch. Ibid., 105, 83-84, 250, 54-55.

⁴³⁹ As Barvitius explains it: 'We golems of Prague live as much down there as you do in the Town Hall, or in your books. Your churches'. It is notable that Barvitius provides this explanation to Koz, while himself having been absent from the clay below for some time. Ibid., 240.

⁴⁴⁰ Ibid., 34.

⁴⁴¹ Pesach can also communicate with humans nonverbally, seen when he carves the solution to the blood libel mystery into the table, and in the hand-signal language he uses with Adara. Pesach also mirrors the hand movements of his human companions, but his own reasons for doing this are not made clear. Ibid., 179-83, 70, 43.

⁴⁴² Kerslake, *Science Fiction and Empire*, 21.

⁴⁴³ Morrison, "Paper Minds," 46. According to his creators, Pesach's cognition is also unique amongst golems. Pesach 'recognises patterns', he '[m]akes inferential leaps', and he has been designed with the intention of teaching his fellow golems the tools of language and choice. Ibid., 110, 253.

indeed, its menace is generated by that very fact'.⁴⁴⁴ Indeed, Koz is initially distrustful of Pesach; but before long, Koz finds himself appraising humans through the same lens, destabilising the possibility of ever knowing what another person might be thinking.⁴⁴⁵

Pesach's otherness is indicative of the alien nature of an inhuman mind. But as a humaniform figure, this otherness invites reflection upon how otherness is constructed in the human. As established in chapter 3, 'Close study of *Ancillary Justice*', neurodivergent traits can be used in SF to signal the ways in which an AI is cognitively different from a human. In texts with zero worlds that demonise neurodivergence, these signs of cognitive difference become denigratory, generating a human/inhuman binary in which neurodivergence is aligned with inhumanity. But within zero worlds which present neurodiversity as a natural part of human existence, this binary is disrupted. Pesach is psychologically other, but he is accepted and treated as a person, an act which invites the conferral of personhood to all golems.⁴⁴⁶ But crucially, Pesach and his fellow golems are not subsumed into existing definitions of humanity.⁴⁴⁷ Changing the Otherness of the Other to bring it into line with the norm, aspiring 'for the Other to become as they would have them be', is itself extremely problematic. It represents an act of erasure, and of absorption: 'Once the external society is absorbed, the Other ceases to be'.⁴⁴⁸ But while Pesach wears the guise of humanity and uses human voices in golem-to-human communication, there is no indication that he seeks to *be* human. Unlike SF figures like Commander Data from *Star Trek: The Next Generation*, Pesach is comfortable in his otherness.

⁴⁴⁴ Kerslake, *Science Fiction and Empire*, 21, 13. Pesach's mien is interpreted a variety of different ways by the characters he meets while with Koz, from threatening to servile. Morrison, "Paper Minds," 50, 162.

⁴⁴⁵ Koz later finds himself appraising other people with the same uncertainty has with Pesach, such as when he looks up at Adara and Miriam after confessing his fraudulent nature. As Adara points out to Koz, 'When people ask what a golem could be thinking, they're not worried *if* golems think. They're worried *what* they think. About *you*.' "Paper Minds," 175, 09-10.

⁴⁴⁶ *Paper Minds* also avoids exclusionary definitions of human worth its human characters. Kozilek lives with physical disability and emotional trauma but is not denigrated or infantilised for either, and multiple expressions of gender expression and sexual orientation are present in *Paper Minds*. Koz is on the asexual spectrum, averse to both sex and romance; Roder is bigender, moving between the masculine gender expression of Pankratius and the feminine gender expression of Chiara; Vorel is privately exploring her lesbian sexual orientation; and Westonia and Johannes Leo have an open marriage, sharing a polyamorous relationship with Philip Lang. Some are public about these aspects of themselves, and some are private; but neither the text nor its characters punish these people for being who they are. *Ibid.*, 91, 51, 86, 40, 116, 219.

⁴⁴⁷ Barvitiis is an exception to this, masking his golemic traits to blend in with the humans around him.

⁴⁴⁸ Kerslake, *Science Fiction and Empire*, 20.

6. Conclusion

SF provides cognitive exploration that can be narrow or broad, encapsulating everything from the fate of humanity to the fate of the individual. While much early SF was little more than ‘formulaic adventure fiction’, it has since become ‘a set of writing and reading protocols ... foregrounding aspects of the *objective world* (as science tries to do), through the engaging invention of stories about imagined *subjects*’.⁴⁴⁹ In doing so, SF can act as a beacon, opening the eyes of society to new technological concepts, converting ‘the manifold complexities and specializations of modern science’ into ‘comprehensible speculative thought’ by inviting its readers to engage with ‘the worldview of scientific materialism and [supplement] it with quasi-mythic narrative to make models relevant to cultures on the ground’.⁴⁵⁰ When faced with technological change, in the act of private imagination ‘[w]e transform our experience into [SF], if only for a moment’, probing our hopeful dreams and anxious fears free from real-world impact.⁴⁵¹

In SF, iconography provides a powerful vector for ideas, both explicit and implicit. This thesis has focused on anthropoidal automata, specifically robots and golems, which embody the unstable borders we draw around human identity and invite the reader to ponder how we define ourselves and our relationship to technology. Wolfe’s icon of the robot represents a codification of these issues. But as a product of its time, Wolfe’s icon, with its charted progression from simple tool to godlike entity, makes explicit the preoccupations of SF about robots across the last century. The icon of the robot carries within it the mechanistic universe championed by Golden Age SF, within which the machinic, the logical, and the abstract is positioned as superior to the organic, the embodied, and the human. These values can be perceived within both machinic and anthropomorphic depictions of anthropoidal automata.

But as I have demonstrated in this thesis, while the invocation of the icon of the robot in a text can echo the familiar values of a mechanistic universe, the text itself need not be predicated on those values. Discussing another of Wolfe’s icons, the icon of the spaceship,

⁴⁴⁹ Broderick, *Reading by Starlight*, xii. Emphasis in original.

⁴⁵⁰ Wolfe, *The Known and the Unknown*, 6; Csicsery-Ronay Jr, *The Seven Beauties of Science Fiction*, 116.

⁴⁵¹ *The Seven Beauties of Science Fiction*, 5.

Attebery explains that when invoking an icon, '[e]very writer ... must choose whether to emphasize phallic power or maternal shelter, frontier individuality or corporate power, and lonely pilots or teeming cities in space'.⁴⁵² The same is true of the icon of the robot, whose machinic aspects can present the logical conclusions of machines as immutable truths, and whose anthropomorphic aspects can be used to reinforce exclusionary definitions of humanity. SF texts begin on same familiar launchpad — the SF mega-text — but the choices made in the composition of the text determines its trajectory into unique territory, 'an open curve, a swing towards the unknown: a parabola'.⁴⁵³ The icon of the robot is a familiar shape, bringing a familiar history; but it is well within SF's power to make this storied familiarity unfamiliar.

As demonstrated in my close study of *Ancillary Justice* and *Paper Minds*, it is possible for a text to include the icon of the robot while also critiquing the mechanistic universe it evokes. Through Breq in *Ancillary Justice*, we are shown the role the body plays in the construction of mind, as well as the validity of neurodivergence. The unique nature of Breq's embodiment, and thus her cognition, stands in opposition to first-generation cognitive science, within which an abstracted mind matters, and a body does not. First-generation cognitive science is not just a scientific issue, but a cultural and ethical one; as Lakoff and Johnson point out, '[s]ocial truth can only be embodied truth'.⁴⁵⁴ Any cultural paradigm that ignores the importance of the physical self is built on a dangerous lie. In *Ancillary Justice*, which is aligned with second-generation cognitive technology, the body constantly makes itself known. Furthermore, Breq's neurodivergent nature is not demonised, but rather validated; the discrimination she faces is not systemic to the zero world of *Ancillary Justice*, and it is in fact questioned by it. While Breq is different to those around her, and while she initially participates in normative behaviour to blend in, she ultimately refuses to be subsumed into normative categories.

In *Paper Minds*, we are shown the same truths. As Graham explains, this is the power of the golem — it can represent 'the fault-lines between the things culture has chosen to call

⁴⁵² Attebery, "Science Fictional Parabolas: Jazz, Geometry, and Generation Starships," 12. Wolfe explains that the spaceship, with its hull separating the cozy interior from the hazardous exterior, 'provides what is perhaps the clearest single image of the barrier that separates the known world from the unknown'. Wolfe, *The Known and the Unknown*, 56.

⁴⁵³ Attebery, "Science Fictional Parabolas: Jazz, Geometry, and Generation Starships," 15.

⁴⁵⁴ Lakoff and Johnson, *Philosophy in the Flesh*, 107.

persons and those it calls machines', while also 'reveal[ing] ... the interests, duties and preoccupations' of the author who brings it to life.⁴⁵⁵ The conditional nature of personhood is demonstrated through Pesach and his fellow golems, as Pesach destabilises both the innate objecthood of golems and the unquestioned personhood of appearing human. Pesach's otherness — an otherness he shares with his fellow golems — is brought into the realm of the human by the humaniform shape, which draws attention to the ways in which these signifiers of otherness are ostracised in the human. The experience of humanness is not just skin deep; as explained by Rhee, '[w]hat is familiar ... is not a priori or innate, but rather constructed through a very specific history of embodiments and social locations'.⁴⁵⁶ By exposing what is considered familiar within the human, and by validating Pesach's unfamiliarity, Pesach represents a definition of personhood within which difference is validated: exclusionary definitions of humanity should not preclude you from personhood. *Paper Minds* also explores the risks of placing absolute trust in opaque systems. In a mechanistic universe, logic reigns supreme, and thus machinic entities whose reasoning is based on logic can be trusted over the reasoning of the organic. By transplanting our contemporary trust in machines into that of machinic golems, whose senses and cognition differ greatly from ours, *Paper Minds* exposes the supposition that machines are the creators of absolute truths.

The use of anthropoidal automata in *Paper Minds*, of exploring the overlap between golems and robots, has not been undertaken lightly. To discuss the robot, it was necessary to invoke the other to discuss how 'the conceptual intimacy between bodies and machines ... provid[es] the grounds for treating people as functional objects'.⁴⁵⁷ As Kerslake argues, otherness is crucial in SF, as SF requires a 'distinctly non-human' Other within which 'we may more easily see our differences'. In SF '[t]he Other is no longer a thing of pity or fear', but is instead part of a 'thought experiment' exploring a vast unknown.⁴⁵⁸ We seek the unknown in SF to reflect back at us what we might know about ourselves. Here we find Pesach, who in his humaniform and machinic qualities blurs the conceptual boundaries between the golem, the robot, and the human. However, Kakoudaki reminds us that there is

⁴⁵⁵ Graham, *Representations of the Post/Human*, 86.

⁴⁵⁶ Rhee, *The Robotic Imaginary*, 68.

⁴⁵⁷ Kakoudaki, *Anatomy of a Robot*, 117-18.

⁴⁵⁸ Kerslake, *Science Fiction and Empire*, 16, 24.

a risk that '[r]obot stories try to make us forget that indeed the difference between robots and people or between subjects and objects is arbitrary, not natural, not inherent, and not ontological'. By depicting golems as a valid other, *Paper Minds* attempts to collapse this arbitrary barrier. Seeking freedom for the other, the ending of *Paper Minds* gestures towards the possibility of golem emancipation, with the first unique words of Pesach lying beyond the final words on the page. But while the 'absolute objecthood' of anthropoidal automata makes emancipating them 'ideologically satisfying', such narratives risk trivialising the real-world plight of those who are denied the rights of subjects and made to suffer as objects. The satisfaction of narratives about servile people seeking emancipation must be tempered with an understanding of how, in the world around us, the inverse of this process is forced upon marginalised peoples and groups, 'structured by law and convention and enforced by violence'.⁴⁵⁹ I argue that *Paper Minds*, through the revelation of a suppressed golem culture and through validity of Pesach's golemic personhood, successfully draws attention to the arbitrary nature of these categories.

As noted over the course of this thesis, multiple avenues for further scholarship on this topic still remain. I previously had the goal of updating Wolfe's icon of the robot to a more contemporary form, what I termed 'the icon of AI'. Had I not chosen to undertake a thesis with a creative artefact, there would have been room to fully explore this possibility. However, given the scope available to me, I was content with acknowledging Wolfe's current icon as representative of the values of the text it was drawn from, as these values remain present both in SF and in real-world science. However, I still believe future scholarship would benefit from an update to Wolfe's icon, constructed through a comprehensive appraisal of SF works now and in the future. Furthermore, at the level of theory, I initially sought to deepen Wolfe's icon of the robot by integrating it with a consonant approach to robots in SF, Stanisław Lem's 'Robots in Science Fiction', first published in 1969. Lem's argument is that depictions of both robots and computers can be understood as one of four 'objects of imitation': 'the relationship between man and machine', 'the relationship between master and slave', 'the relationship between man and succubus or incubus', and 'the relationship between man and transcendence'.⁴⁶⁰ However,

⁴⁵⁹ Kakoudaki, *Anatomy of a Robot*, 153, 54.

⁴⁶⁰ Lem, "Robots in Science Fiction," 313.

due to the already significant scope of this thesis, consideration of Lem's theory was set aside for another time. Similarly, another of Wolfe's icons is worthy of interrogation in relation to the icon of the robot — the icon of the monster, whose appearance in SF catalyses a 'tension between understanding and panic' as the characters wrestle between seeking understanding and giving in to their own fears.⁴⁶¹

Additionally, the third category of Wolfe's icon of the robot, the eschatological — in which the endpoint for machines is a godlike dominion over humanity — warrants further scholarly attention.⁴⁶² This category was explained in this thesis only to demonstrate how the icon of the robot was framed as a logical progression to from subservient tool to omnipotent being. I believe the full implications of this supposedly inevitable apotheosis, and the deification of technology it inspires both in real-world culture and in SF, should be explored in full. The Singularity continues to be touted as a possibility by theorists like Kurzweil, its ascendant possibilities realised in SF texts like Wally Pfister's film *Transcendence* (2014) and Spike Jonze's film *Her* (2013).⁴⁶³ As Chernyshova points out, models of reality proposed by experts gain a 'certain autonomy' in popular culture, even when they 'are merely working hypotheses'. But SF has the power to question established paradigms and to deepen understanding in popular consciousness, existing as it does on 'the territory ... between exact knowledge and everyday consciousness' and 'the territory of the ... interaction between myth creation and art'.⁴⁶⁴ I believe that SF works that posit or decry the Singularity, and how they relate to the icon of the robot, warrant significant attention in future.

Further investigations of SF, and further creative responses, are also warranted. The sexuality of anthropoidal automata was also not given its due critical analysis in this thesis. There are many works in the golemic mega-texts that touch upon the topic, such as those by Leivick, Singer, and Piercy, which could be analysed alongside the role of gender in golem creation. Making Pesach male in *Paper Minds* was a conscious choice, so that he could reflect

⁴⁶¹ Wolfe, *The Known and the Unknown*, 186.

⁴⁶² Whether the eschatological category of Wolfe's icon of the robot can be compared in any way with the golem — in particular, the origins of the golem in the creation of Adam — is beyond my current ability to comment.

⁴⁶³ Pfister, *Transcendence*; Jonze, *Her*. The only hurdle in the way of the Singularity for Kurzweil is the possibility that we might destroy ourselves before we reach it. But he claims that we have 'a better than even chance of making it through', though he does admit that he has 'been accused of being an optimist'. Ray Kurzweil, *The Age of Spiritual Machines: When Computers Exceed Human Intelligence* (United States of America: Penguin Books, 2000; repr., Paperback), 256-57.

⁴⁶⁴ Chernyshova, "Science Fiction and Myth Creation in Our Age," 351, 55.

the predominantly masculine depictions of the robots and golems that precede him, but I intend to explore the gender and sexuality of golems in future works. Furthermore, the anthropomorphic qualities of the icon of the robot in *Ancillary Justice* had to be omitted from this thesis in an attempt at brevity, and the entirety of Leckie's Imperial Radch trilogy — *Ancillary Justice*, *Ancillary Sword* and *Ancillary Mercy* — would benefit from a full appraisal. There are also many works of SF that escaped my notice when I was undertaking my research, or that did not make the final cut in my analysis. I am particularly interested in the role parody plays in the icon of the robot, and in how parodic content can simultaneously question and disseminate robot tropes.⁴⁶⁵ Additionally, while I analysed both SF and sci-fi texts in this thesis — after all, the robot itself knows no such boundaries — the use of critical tools to determine the allegorical depth of any given SF/sci-fi text would allow for deeper analysis of that text's impact. For this task, Suvin's pessimisms (the four ways in which the novum of a text can fail to provide any cognitive depth) and Lem's conception of 'pseudo-SF' (which lacks any meaningful semantic connection to the world of the reader) were considered for this thesis, but again, for the sake of brevity, set aside.⁴⁶⁶

Ultimately, I believe that any further investigation of Wolfe's icon of the robot should be a responsive one. Our ongoing considerations of anthropoidal automata should reflect our ongoing relationship with technology; according to LaGrandeur, while we have always felt threatened by the intelligent things we create, 'the symbolic nature of that threat has changed over time'.⁴⁶⁷ New technologies continue to create new possibilities, as well as new ways for us to define ourselves, and '[t]he values which underlie our technological choices are the most important determinant of their consequences'.⁴⁶⁸ Of course, it should be noted that, regardless of what innovations lie over the horizon, some elements of our relationship

⁴⁶⁵ Works that invoke the icon of the robot through parody include Lem's *The Cyberiad* (1965), as well as the popular SF franchises that have spawned from Douglas Adams' *The Hitch Hiker's Guide to the Galaxy* (1988), and Rob Grant and Doug Naylor's *Red Dwarf* (1988), and Matt Greening and David X Cohen's *Futurama* (1999). Stanisław Lem, *The Cyberiad*, trans. Michael Kandel, Penguin Classics (Great Britain: Penguin Books, 2014); Douglas Adams, *The Hitch Hiker's Guide to the Galaxy* (Great Britain: Pan Books, 1988); Matt Groening and David X Cohen, *Futurama* (United States: 20th Television, 1999); Rob Grant and Doug Naylor, *Red Dwarf* (United Kingdom: BBC, 1988).

⁴⁶⁶ Darko Suvin, "Narrative Logic, Ideological Domination, and the Range of Science Fiction: A Hypothesis with a Historical Test (Logique Narrative, Dominate Idéologique Et L'éventail De La S-F: Hypothèse Et Épreuve Historique)," *Science Fiction Studies* 9, no. 1 (1982); Stanisław Lem, "On the Structural Analysis of Science Fiction," *ibid.* 1 (1973): 28.

⁴⁶⁷ LaGrandeur, *Androids and Intelligent Networks in Early Modern Literature and Culture*, 159.

⁴⁶⁸ Vint, *Bodies of Tomorrow*, 190.

with anthropoidal automata remain transhistorical, as the centuries-old 'philosophical heritage' of anthropoidal automata 'lends its apocryphal aura to new texts and figures'.⁴⁶⁹ But we cannot afford to let our icons stand unquestioned, particularly when this icon has the power to shape our views on the value of personhood. Everything abstract has a physical home, and nothing exists free of context. No iconic figure, no matter how familiar, should be embraced without due interrogation of what that icon represents.

⁴⁶⁹ Kakoudaki, *Anatomy of a Robot*, 4.

Bibliography

- Abraham, David. *A Hebrew Chronicle from Prague, C. 1615*. Translated by Leon J Weinberger and Dena Ordan. Tuscaloosa: University of Alabama Press, 2012.
- Abrams, J J. *Star Wars: The Rise of Skywalker*. Walt Disney Studios Motion Pictures, 2019.
- Ackerman, Evan. "Fatal Tesla Self-Driving Car Crash Reminds Us That Robots Aren't Perfect." *IEEE Spectrum*, 1 July 2016.
- Adams, Douglas. *The Hitch Hiker's Guide to the Galaxy*. Great Britain: Pan Books, 1988.
- Ahmed, Sara. *Queer Phenomenology: Orientations, Objects, Others*. Durham: Duke University Press, 2006.
- Alan, Van. *Automata*. Seattle: Penny Arcade, Inc, 2017.
- Aldiss, Brian W, and David Wingrove. *Trillion Year Spree: The History of Science Fiction*. First American Edition ed. New York City: Atheneum, 1986.
- Anderson, Poul. *Genesis*. Ashland: Blackstone Audio, Inc., 2011.
- Andrade, Suzanne. "Golem." Dunstan Playhouse, Adelaide Festival Centre, on Sunday, 13 March: Performed by 1927, 2016.
- Asimov, Isaac. *The Bicentennial Man*. Great Britain: Millennium, 2000. 1976.
- — —. *The Caves of Steel*. London: HarperCollins, 1997. 1953.
- — —. "The Evitable Conflict." Chap. 9 In *I, Robot*, 198-224. New York City: Bantam Books, 2004.
- — —. *I, Robot*. New York City: Bantam Books, 2004. 1950.
- — —. "Introduction: The Robot Chronicles." Performed by Graham Winton. In *Robot Visions*. Prince Frederick: Recorded Books, 2015.
- — —. "The Last Question." Performed by George Guidall. In *Robot Dreams*. Newark: Audible Studios, 2014.

- — —. "The Machine and the Robot." Performed by Graham Winton. In *Robot Visions*. Prince Frederick: Recorded Books, 2015.
- — —. "My Robots." Performed by Graham Winton. In *Robot Visions*. United States: Recorded Books, 2015.
- — —. *The Naked Sun*. Old Saybrook: Tantor Audio, 2013.
- — —. "Robbie." Chap. 1 In *I, Robot*, 1-24. New York City: Bantam Books, 2004.
- — —. *Robot Dreams*. Newark: Audible Studios, 2014.
- — —. *Robot Visions*. Prince Frederick: Recorded Books, 2015.
- — —. *The Robots of Dawn*. Old Saybrook: Tantor Audio, 2013.
- — —. "Runaround." Chap. 2 In *I, Robot*, 25-45. New York City: Bantam Books, 2004.
- Attebery, Brian. "The Magazine Era: 1926-1960." Chap. 2 In *The Cambridge Companion to Science Fiction*, edited by Edward James and Farah Mendelsohn, 32-47. Cambridge: Cambridge University Press, 2012.
- — —. "Science Fictional Parables: Jazz, Geometry, and Generation Starships." Chap. 1 In *Parables of Science Fiction*, edited by Brian Attebery and Veronica Hollinger, 3-23. Middletown: Wesleyan University Press, 2013.
- Attebery, Brian, and Veronica Hollinger, eds. *Parables of Science Fiction*. Middletown: Wesleyan University Press, 2013.
- Baer, Elizabeth R. *The Golem Redux: From Prague to Post-Holocaust Fiction*. Detroit: Wayne State University Press, 2012.
- Banks, Iain M. *Consider Phlebas*. New York: Hachette Digital, 2010.
- Beckett, Bernard. *Genesis*. Grand Haven: Brilliance Audio, 2009.
- Bennett, Jane. "A Vitalist Stopover on the Way to a New Materialism." In *New Materialisms: Ontology, Agency, and Politics*, edited by Diana Coole and Samantha L Frost, 47-69. Durham: Duke University Press, 2010.

Berressem, Hanjo. "On the Matter of Abjection." In *The Abject of Desire: The Aestheticization of the Unaesthetic in Contemporary Literature and Culture*, edited by Konstanze Kutzbach and Monika Mueller Amsterdam: Genus, 2007.

Black, Daniel. *Embodiment and Mechanisation: Reciprocal Understandings of Body and Machine from the Renaissance to the Present*. London: Ashgate Publishing Ltd, 2014.

Black, Max. *Models and Metaphors*. 3rd ed. New York: Cornell University Press, 1966. 1962.

— — —. "More About Metaphor." In *Metaphor and Thought*, edited by Andrew Ortony, 19-43. Cambridge: Cambridge University Press, 1980.

Blackford, Russell. *Science Fiction and the Moral Imagination: Visions, Minds, Ethics*. eBook: Springer International Publishing, 2017.

Bloch, Chajim. *The Golem: Legends of the Ghetto of Prague*. Translated by Harry Schneiderman. Vienna: The Golem, 1925.

Boden, Margaret A. *AI: Its Nature and Future*. Great Britain: Oxford University Press, 2016.

Bostrom, Nick. *Superintelligence: Paths, Dangers, Strategies*. Oxford: Oxford University Press, 2016. 2014.

Bostrom, Nick, and Eliezer Yudkowsky. "The Ethics of Artificial Intelligence." Chap. 15 In *The Cambridge Handbook of Artificial Intelligence*, edited by Keith Frankish and William M Ramsey, 316-34. Cambridge: Cambridge University Press, 2014.

Bould, Mark, and Sherryl Vint. *The Routledge Concise History of Science Fiction*. New York: Routledge, 2011.

Boyd, Richard. "Metaphor and Theory Change: What Is "Metaphor" a Metaphor For?". In *Metaphor and Thought*, edited by Andrew Ortony, 356-408. Cambridge: Cambridge University Press, 1980.

Bradbury, Ray. "I Sing the Body Electric!". Chap. 11 In *I Sing the Body Electric!*, edited by Ray Bradbury, 150-90. London: Hart-Davis, 1977.

Braidotti, Rosi. "The Politics of "Life Itself" and New Ways of Dying." In *New Materialisms: Ontology, Agency, and Politics*, edited by Diana Coole and Samantha L Frost, 201-18. Durham: Duke University Press, 2010.

- Brey, Philip A E. "Ethical Aspects of Face Recognition Systems in Public Places." *Journal of Information, Communication & Ethics in Society* 2, no. 2 (2004): 97-109.
- Brin, David. *Kiln People*. Newark: Audible Studios, 2012.
- Broderick, Damien. *Reading by Starlight: Postmodern Science Fiction*. Abingdon-on-Thames: Routledge, 1995. 1994.
- Brook-Rose, Christine. *A Rhetoric of the Unreal: Studies in Narrative and Structure, Especially of the Fantastic*. Cambridge: Cambridge University Press, 1981.
- Brooks, Rodney A. *Flesh and Machines: How Robots Will Change Us*. New York: Vintage Books, 2003. 2002.
- Bukovinská, Beket. "The Kunstkammer of Rudolf II: Where It Was and What It Looked Like." In *Rudolf II and Prague*, edited by Eliška Fučíková, 199-208. Great Britain: Thames and Hudson, 1997.
- Butler, Judith. *Gender Trouble: Feminism and the Subversion of Identity*. New York: Routledge, 1999. 10th Anniversary Edition. 1990.
- Butler, Samuel. *Erewhon*. London: J M Dent & Sons, 1962. 1872.
- Cameron, James. *Aliens*. United States: 20th Century Fox, 1986. DVD.
- — —. *The Terminator*. United States: Orion Pictures, 1984. Netflix.
- — —. *Terminator 2: Judgment Day*. United States: TriStar Pictures, 1991. Netflix.
- Čapek, Karel. "R.U.R.". In *R.U.R. And the Insect Play*, 1-104. London: Oxford University Press, 1961.
- Cermanová, Iveta, and Alexandr Putík. "Jews in the Bohemian Lands, 10th - 18th Century." Prague: Maisel Synagogue, 2015.
- Chabon, Michael. *The Amazing Adventures of Kavalier & Clay*. Notting Hill: Fourth Estate, 2010. 2000.
- Chandler, Katherine. *Unmanning: How Humans, Machines and Media Perform Drone Warfare*. New Brunswick: Rutgers University Press, 2020.

Charlton, James I. *Nothing About Us without Us: Disability Oppression and Empowerment*.

Berkeley: University of California Press, 1998.

Chattopadhyay, Bodhisattva. "The Urban in Posthuman Science Fiction." Chap. 22 In

Defining the Urban: Interdisciplinary and Professional Perspectives, edited by Deljana Iossifova,

Christopher N H Doll and Alexandros Gasparatos, 266-79. Florence: Taylor & Francis

Group, 2018.

Cheney, Donald, Brenda M Hosington, and D K Money, eds. *Collected Writings – Elizabeth*

Jane Weston. Toronto: University of Toronto Press, 2000.

Chernyshova, Tatiana. "Science Fiction and Myth Creation in Our Age." *Science Fiction*

Studies 31, no. 3 (2004): 345-57.

Clarke, Arthur C. 2001: *A Space Odyssey*. United Kingdom: Hutchinson, 1968.

— — —. *The City and the Stars*. Leicester: W. F. Howes Ltd, 2013.

Cohen, John. *Human Robots in Myth and Science*. London: Allen & Unwin, 1966.

Cohn, Cindy. "Foreword." In *The End of Trust*, edited by Dave Eggers. McSweeney's

Quarterly, 24-32. San Francisco: McSweeney's, 2018.

Cole, Myke, Hamid Khan, and Ken Montenegro. "Should Law Enforcement Use

Surveillance?". In *The End of Trust*, edited by Dave Eggers. McSweeney's Quarterly, 83-91.

San Francisco: McSweeney's, 2018.

Coole, Diana, and Samantha L Frost. "Introducing the New Materialisms." In *New*

Materialisms: Ontology, Agency, and Politics, edited by Diana Coole and Samantha L Frost, 1-

43. Durham: Duke University Press, 2010.

Crichton, Michael. *Westworld*. Metro-Goldwyn-Mayer, 1973.

Csicsery-Ronay Jr, Istvan. *The Seven Beauties of Science Fiction*. Middletown: Wesleyan

University Press, 2008.

Damasio, Antonio. *Descartes' Error: Emotion, Reason, and the Human Brain*. United States of

America: Penguin, 2005. 1994.

Danks, David. "Learning." Chap. 7 In *The Cambridge Handbook of Artificial Intelligence*, edited by Keith Frankish and William M Ramsey, 151-67. Cambridge: Cambridge University Press, 2014.

Dekel, Edan, and David Gantt Gurley. "How the Golem Came to Prague." *The Jewish Quarterly Review* 103, no. 2 (2013): 241-58.

Delany, Samuel R. *The Jewel-Hinged Jaw: Notes on the Language of Science Fiction*. Revised ed. Middletown: Wesleyan University Press, 2009.

Demetz, Peter. *Prague in Black and Gold: The History of a City*. London: Penguin Books, 1998. 1997.

Descartes, René. *Meditations and Other Metaphysical Writings*. Translated by Desmond M Clarke. London: Penguin Books, 2003.

Diaz, Arryn. "Dresden Codak: Dark Science." <http://dresdencodak.com/>.

— — —. *The Tomorrow Girl*. Easthampton: Make That Thing, 2013.

Dick, Philip K. *Do Androids Dream of Electric Sheep?* London: Gollancz, 2002. 7th. 1968.

Dinello, Daniel. *Technophobia!* Austin: University of Texas Press, 2005.

Dixon-Kennedy, Mike. *Encyclopedia of Russian & Slavic Myth and Legend*. Santa Barbara: ABC-CLIO, 1998.

Detroit: Become Human. Sony Interactive Entertainment, PlayStation 4.

Elish, Madeleine. "Moral Crumple Zones: Cautionary Tales in Human-Robot Interaction (Pre-Print)." *Engaging Science, Technology, and Society* 5 (1 March 2019): 40-60.

Ellison, Harlan. *I Have No Mouth, and I Must Scream*. I Have No Mouth, and I Must Scream. New York: Ace Books, 1983.

Emanuel, Peter, Scott Walper, Diane DiEuliis, Natalie Klein, James B Petro, and James Giordano. "Cyborg Soldier 2050: Human/Machine Fusion and the Implications for the Future of the Dod." Aberdeen: U.S. Army Combat Capabilities Development Command Chemical Biological Center, 2019.

- Fagnant, Daniel J, and Kara Kockelman. "Preparing a Nation for Autonomous Vehicles: Opportunities, Barriers and Policy Recommendations." *Elsevier Ltd* 77, Transportation Research Part A (July 2015): 167-81.
- Findlen, Paula. "Cabinets, Collecting and Natural Philosophy." In *Rudolf II and Prague*, edited by Eliška Fučíková, 209-19. Great Britain: Thames and Hudson, 1997.
- Forster, E M. "The Machine Stops." In *The Machine Stops and Other Stories*, edited by E M Forster, 13-59. London: Collector's Library, 2012.
- Franceschi, Valeria. "'Are You Alive?' Issues in Self-Awareness and Personhood of Organic Artificial Intelligence." *Pólemos* 6, no. 2 (2012): 225-47.
- Franklin, Stan. "History, Motivations and Core Themes." Chap. 1 In *The Cambridge Handbook of Artificial Intelligence*, edited by Keith Frankish and William M Ramsey, 15-33. Cambridge: Cambridge University Press, 2014.
- Fučíková, Eliška. "Prague Castle under Rudolf II, His Predecessors and Successors." In *Rudolf II and Prague*, edited by Eliška Fučíková, 2-71. Great Britain: Thames and Hudson, 1997.
- — —, ed. *Rudolf II and Prague*. Great Britain: Thames and Hudson, 1997.
- No Man's Sky*. Hello Games, PlayStation 4.
- Garland, Alex. *Ex Machina*. United Kingdom: A24 & Universal Pictures, 2015. DVD.
- Gelbin, Cathy S. *The Golem Returns: From German Romantic Literature to Global Jewish Culture, 1808-2008*. Ann Arbor: University of Michigan Press, 2011.
- Gibson, William. *Neuromancer*. New York: Ace Books, 1984. 1984.
- Goertzel, Ben, and Cassio Pennachin, eds. *Artificial General Intelligence, Cognitive Technologies*. Berlin: Springer-Verlag, 2007.
- Goethe, Johann Wolfgang von. "The Pupil in Magic." Translated by Edgar Alfred Bowering. In *The Sorcerer's Apprentice: An Anthology of Magical Tales*, edited by Jack Zipes, 97-100. Princeton: Princeton University Press, 2017.

- Goldsman, Akiva, Michael Chabon, Kirsten Beyer, and Alex Kurtzman. *Star Trek: Picard*. CBS All Access: Secret Hideout, Weed Road Pictures, Escapist Fare, Roddenberry Entertainment, CBS Studios, 2020. Amazon Prime Video.
- Goldsmith, Arnold L. *The Golem Remembered, 1908-1980: Variations of a Jewish Legend*. Detroit: Wayne State University Press, 1981.
- Gouk, Penelope. "Natural Philosophy and Natural Magic." In *Rudolf II and Prague*, edited by Eliška Fučíková, 231-37. Great Britain: Thames and Hudson, 1997.
- Graham, Elaine L. *Representations of the Post/Human: Monster, Aliens and Others in Popular Culture*. New Jersey: Rutgers University Press, 2002.
- Grant, Rob, and Doug Naylor. *Red Dwarf*. United Kingdom: BBC, 1988.
- Greenblatt, Jordana. "'More Human Than Human': 'Flattening of Affect,' Synthetic Humans, and the Social Construction of Maleness." *English Studies in Canada* 42, no. 1-2 (2016): 41-63.
- Gregory, Derek. "From a View to a Kill: Drones and Late Modern War." *Theory, Culture & Society* 28, no. 7-8 (2012): 188-215.
- Groening, Matt, and David X Cohen. *Futurama*. United States: 20th Television, 1999.
- "The Guardian View on Digital Injustice: When Computers Make Things Worse." *The Guardian*, 10 June 2019.
- Gunn, James E. *Inside Science Fiction*. 2nd ed. Lanham: Scarecrow Press, 2006.
- Hamon, Philippe. "Un Discourse Constraint." *Poétique* 16, no. Le discours réaliste (1973): 411-45.
- Haraway, Donna. "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century." Chap. 24 In *Science Fiction Criticism: An Anthology of Essential Writings*, edited by Rob Latham, 306-29. Great Britain: Bloomsbury, 2017.
- Hayles, N Katherine. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago: The University of Chicago Press, 1999.
- Heater, Brian. "The Lonely Death of Jibo, the Social Robot." *TechCrunch*, 5 March 2019.

Hendricks, Michael. "The False Science of Cryonics." *MIT Technology Review*, 15 September 2015.

Hern, Alex. "Self-Driving Cars Don't Care About Your Moral Dilemmas." *The Guardian*, 23 August 2016.

Holkins, Jerry, and Mike Krahulik. "Penny Arcade: Automata." <https://www.penny-arcade.com/>.

Hollinger, Veronica. "Cybernetic Deconstructions: Cyberpunk and Postmodernism." Chap. 6 In *Science Fiction Criticism: An Anthology of Essential Writings*, edited by Rob Latham, 43-58. Great Britain: Bloomsbury, 2017.

Hurwitz, Judith, Henry Morris, Candace Sidner, and Daniel Kirsch. *Augmented Intelligence: The Business Power of Human-Machine Collaboration*. Milton: Auerbach Publishers, Incorporated, 2019.

Husbands, Phil. "Robotics." Chap. 13 In *The Cambridge Handbook of Artificial Intelligence*, edited by Keith Frankish and William M Ramsey, 269-95. Cambridge: Cambridge University Press, 2014.

Idel, Moshe. *Golem: Jewish Magical and Mystical Traditions on the Artificial Anthropoid*. Albany: State University of New York Press, 1990.

Introna, Lucas D, and David Murakami Wood. "Picturing Algorithmic Surveillance: The Politics of Facial Recognition Systems." *Surveillance & Society* 2, no. 2/3 (2004): 177-98.

Janai, Joel, Fatma Güney, Aseem Behl, and Andreas Geiger. "Computer Vision for Autonomous Vehicles: Problems, Datasets and State of the Art." *Foundations and Trends in Computer Graphics and Vision* 12, no. 1-3 (2017): 1-308.

Jones, Gwyneth. "The Icons of Science Fiction." Chap. 11 In *The Cambridge Companion to Science Fiction*, edited by Edward James and Farah Mendelsohn, 163-73. Cambridge: Cambridge University Press, 2012.

Jonze, Spike. *Her*. United States: Warner Bros. Pictures, 2013. DVD.

Joyce, Stephen. *Transmedia Storytelling and the Apocalypse*. Cham: Palgrave Macmillan, 2018.

- Kagarlitski, Julius. "Realism and Fantasy." Translated by Milda Carroll. In *SF: The Other Side of Realism*, edited by Thomas D Claeson, 29-52. Bowling Green: Bowling Green University Popular Press, 1971.
- Kakoudaki, Despina. *Anatomy of a Robot: Literature, Cinema, and the Cultural Work of Artificial People*. New Brunswick: Rutgers University Press, 2014.
- Kalogridis, Laeta. *Altered Carbon*. United States: Netflix, 2018.
- Kaufman, Amie, and Jay Kristoff. *Illuminae*. New York: Random House/Listening Library, 2015.
- Kerslake, Patricia. *Science Fiction and Empire*. Liverpool Science Fiction Texts and Studies, 35. Liverpool: Liverpool University Press, 2007.
- Kieval, Hillel J. *Languages of Community: The Jewish Experience in the Czech Lands*. Berkeley: University of California Press, 2000.
- Kincaid, Paul. "On the Origins of Genre." *Extrapolation: A Journal of Science Fiction and Fantasy* 44, no. 4 (2003): 409-19.
- Kristeva, Julia. *Powers of Horror: An Essay on Abjection*. Translated by Leon S Roudiez. New York: Columbia University Press, 1982. 1980.
- Kubrick, Stanley. "2001: A Space Odyssey." 142 minutes. United Kingdom & United States: Metro-Goldwyn-Mayer, 1968.
- Kukkonen, Karin, and Marco Caracciolo. "Introduction: What Is the 'Second Generation'?" *Style* 48, no. 3 (2014): 261-74; 450-51.
- Kurzweil, Ray. *The Age of Spiritual Machines: When Computers Exceed Human Intelligence*. United States of America: Penguin Books, 2000. Paperback. 1999.
- LaGrandeur, Kevin. *Androids and Intelligent Networks in Early Modern Literature and Culture: Artificial Slaves*. Routledge Studies in Renaissance Literature and Culture. New York: Routledge, 2013.
- Lakoff, George, and Mark Johnson. *Philosophy in the Flesh: The Embodied Mind & Its Challenge to Western Thought*. New York: Basic Books, 1999.

- Latham, Rob, ed. *Science Fiction Criticism: An Anthology of Essential Writings*. London: Bloomsbury, 2017.
- Leckie, Ann. *Ancillary Justice*. London: Little, Brown Book Group, 2013.
- — —. *Ancillary Mercy*. London: Little, Brown Book Group, 2015.
- — —. *Ancillary Sword*. London: Little, Brown Book Group, 2014.
- Leivick, H. "The Golem." Translated by Joachim Neugroschel. In *The Golem: A New Translation of the Classic Play and Selected Short Stories*, edited by Joachim Neugroschel, 111-254. New York: W. W. Norton & Company, 2006.
- Lem, Stanisław. *The Cyberiad*. Translated by Michael Kandel. Penguin Classics. Great Britain: Penguin Books, 2014. 1965.
- — —. "On the Structural Analysis of Science Fiction." *Science Fiction Studies* 1, no. 1 (1973): 26-33.
- — —. "Robots in Science Fiction." Translated by Franz Rottensteiner. In *SF: The Other Side of Realism*, edited by Thomas D Clareson, 307-25. Bowling Green: Bowling Green University Popular Press, 1971.
- Leveringhaus, Alex. *Ethics and Autonomous Weapons*. London: Palgrave Macmillan UK, 2016.
- Leviant, Curt. "Introduction." In *The Golem and the Wondrous Deeds of the Maharal of Prague*. New Haven: Yale University Press, 2007.
- Loomis, Edward F. "A Compendium of Law Enforcement Surveillance Tools: Facial Recognition Systems." In *The End of Trust*, edited by Dave Eggers. McSweeney's Quarterly, 40-42. San Francisco: McSweeney's, 2018.
- Lucas, George. *Star Wars*. United States: 20th Century Fox, 1977.
- Lum, Kristian, and William Isaac. "To Predict and Serve?" *Significance*, 2016, 14-19.
- Lyn, Euros. "Fifteen Million Merits." In *Black Mirror*: Netflix, 2011.
- MacFarlane, Alex Dally. "Post-Binary Gender in SF: Ancillary Justice by Ann Leckie." (2014). Published electronically 18 February. <http://www.tor.com/2014/02/18/post-binary-gender-in-sf-ancillary-justice-by-ann-leckie/>.

- Manners, Kim. "Kaddish." In *The X-Files*: Fox, 2011.
- Marshall, Peter. *The Magic Circle of Rudolf II: Alchemy and Astrology in Renaissance Prague*. New York: Walker & Company, 2006.
- Mass Effect*. Microsoft Game Studios & Electronic Arts, United States of America.
- Mass Effect 2*. Electronic Arts, United States of America.
- Mass Effect 3*. Electronic Arts, United States of America.
- McCaffrey, Anne. *The Ship Who Sang*. London: Transworld, 2012.
- McDonald, Ian. *River of Gods*. Newark: Audible Studios, 2012.
- Menary, Richard. "Introduction to the Special Issue on 4e Cognition." *Phenomenology and the Cognitive Sciences* 9, no. 4 (2010): 459–63.
- Mendelsohn, Farah. "Introduction." In *The Cambridge Companion to Science Fiction*, edited by Edward James and Farah Mendelsohn, 1-12. Cambridge: Cambridge University Press, 2012.
- Meyrink, Gustav. *The Golem*. Translated by M. Pemberton. Cambridgeshire: Dedalus, 1985. First published 1915.
- 2064: Read Only Memories*. MidBoss, PlayStation 4.
- Mignola, Mike, and Christopher Golden. *Joe Golem and the Drowning City*. New York: St. Martin's Press, 2012.
- Miller, Tim. *Terminator: Dark Fate*. 20th Century Fox, 2019. Netflix.
- Mitchell, David T, Susan Antebi, and Sharon L Snyder. *The Matter of Disability : Materiality, Biopolitics, Crip Affect*. Lewisburg: University of Michigan Press, 2019.
- Mitchell, David T, and Sharon L Snyder. *Narrative Prosthesis: Disability and the Dependencies of Discourse*. Corporealities: Discourses of Disability. Ann Arbor: The University of Michigan Press, 2000. doi:<https://doi.org/10.3998/mpub.11523>.
- Moorcock, Michael. "Starship Stormtroopers." *Cienfuegos Press Anarchist Review* 4 (1978).
- Moore, Ronald D. *Battlestar Galactica*. NBCUniversal Television Distribution, 2004-2009.
- Moravec, Hans. *Mind Children: The Future of Robot and Human Intelligence*. Cambridge: Harvard University Press, 1988.

Morrison, Ryan J. "Ethical Depictions of Neurodivergence in SF about AI." *Configurations* 27, no. 3 (2019): 387-410.

— — —. "Paper Minds." Adelaide: Flinders University, 2021.

Mout, Nicolette. "The Court of Rudolf II and Humanist Culture." In *Rudolf II and Prague*, edited by Eliška Fučíková, 220-22. Great Britain: Thames and Hudson, 1997.

Murray, Stuart. "Autism and the Contemporary Sentimental: Fiction and the Narrative Fascination of the Present." *Literature and Medicine* 25, no. 1 (2006): 24-45.

Musk, Elon, and Neuralink. "An Integrated Brain-Machine Interface Platform with Thousands of Channels." *Journal of Medical Internet Research* 21, no. 10 (2019): 1-14.

Ng, Jeannette. "John W. Campbell, for Whom This Award Was Named, Was a Fascist." Medium, <https://medium.com/@nettlefish/john-w-campbell-for-whom-this-award-was-named-was-a-fascist-f693323d3293>.

Niles, Steve, Matt Santoro, and Dave Wachter. *Breath of Bones: A Tale of the Golem*. Milwaukee: Dark Horse, 2014.

Nolan, Jonathan, and Lisa Joy. *Westworld*. United States: Warner Bros. Television Distribution, 2016.

Nyholm, Sven R., and Jilles Smids. "The Ethics of Accident-Algorithms for Self-Driving Cars: An Applied Trolley Problem?" *Ethical Theory and Moral Practice* 19, no. 5 (1 November 2016): 1275-89.

Oshii, Mamoru. *Ghost in the Shell*. Japan: Madman Entertainment, 1995. DVD.

Pavlát, Leo. "Maharal's Legacy." In *Path of Life: Rabbi Judah Loew Ben Bezalel Ca. 1525-1609*, edited by Alexandr Putík, 13-15. Czechia: Academia, 2009.

Pecháčková, Ivana, and Petr Nikl. *The Legend of the Golem*. Translated by Klára Tvarůžková. Czechia: Meander, 2004.

Pešek, Jiří. "Prague between 1550 and 1650." In *Rudolf II and Prague*, edited by Eliška Fučíková, 252-69. Great Britain: Thames and Hudson, 1997.

Pfister, Wally. *Transcendence*. United Kingdom: Warner Bros. Pictures, 2014.

- Piercy, Marge. *He, She and It*. New York: Ballantine Books, 1993. 1991.
- Nier: Automata*. Square Enix, PlayStation 4.
- Portal*. Valve Corporation, United States.
- Portal 2*. Valve Corporation, United States.
- Pratchett, Terry. *Feet of Clay*. London: Corgi Books, 1997. 1996.
- — —. *Going Postal*. London: HarperCollins, 2005. 2004.
- — —. *Making Money*. London: Corgi Books, 2007.
- Proyas, Alex. *I, Robot*. United States: 20th Century Fox, 2004.
- Putík, Alexandr. "The Conception and Division of the Exhibition." In *Path of Life: Rabbi Judah Loew Ben Bezalel Ca. 1525-1609*, edited by Alexandr Putík, 16-17. Czechia: Academia, 2009.
- — —, ed. *Path of Life: Rabbi Judah Loew Ben Bezalel Ca. 1525-1609*. Czechia: Academia, 2009.
- Putík, Alexandr, and Daniel Polakovič. "Judah Loew Ben Bezalel, Called Maharal — a Study on His Genealogy and Biography." In *Path of Life: Rabbi Judah Loew Ben Bezalel Ca. 1525-1609*, edited by Alexandr Putík, 28-83. Czechia: Academia, 2009.
- Quachri, Trevor. "A Statement from the Editor." *The Astounding Analog Companion*, <https://www.nytimes.com/2019/08/28/books/john-w-campbell-award-jeannette-ng.html>.
- Regalado, Antonio. "A Startup Is Pitching a Mind-Uploading Service That Is "100 Percent Fatal"." *MIT Technology Review*, 13 March 2018.
- Rhee, Jennifer. *The Robotic Imaginary: The Human and the Price of Dehumanized Labour*. Minnesota: University of Minnesota Press, 2018.
- Rhian, Jason. "What Did Opportunity's 'Last Words' Actually Mean?" *SpaceFlight Insider*, 17 February 2019.
- Rieder, John. *Colonialism and the Emergence of Science Fiction*. Middletown: Wesleyan University Press, 2012.
- Ripellino, Angelo Maria. *Magic Prague*. Translated by David Newton Marinelli. London: Picador, 1995. 1973.

Roberts, Adam. *The History of Science Fiction*. Palgrave Histories of Literature. London: Palgrave Macmillan, 2006.

Robinson, Kim Stanley. *Aurora*. London: Hachette Audio UK, 2015.

Roddenberry, Gene. *Star Trek: The Next Generation*. United States of America: CBS Television Distribution & Netflix, 1987. Netflix.

Rosenberg, Yudl. *The Golem and the Wondrous Deeds of the Maharal of Prague*. Translated by Curt Leviant. New Haven: Yale University Press, 2007. 1909.

— — —. “The Golem or the Miraculous Deeds of Rabbi Leyb.” Translated by Joachim Neugroschel. In *The Golem: A New Translation of the Classic Play and Selected Short Stories*, edited by Joachim Neugroschel, 1-75. New York: W. W. Norton & Company, 2006.

Russ, Joanna. “The Image of Women in Science Fiction.” Chap. 17 In *Science Fiction Criticism: An Anthology of Essential Writings*, edited by Rob Latham, 200-10. Great Britain: Bloomsbury, 2017.

— — —. *To Write Like a Woman: Essays in Feminism and Science Fiction*. Bloomington: Indiana University Press, 1995.

Russell, Stuart J, and Peter Norvig. *Artificial Intelligence: A Modern Approach*. 3rd ed. Upper Saddle River: Pearson/Prentice Hal, 2010.

Rygl, Tomáš. *Prague: Detailed Picture Guide* Translated by Petra Overall. Czechia: ATP Publishing, 2007.

Salo, Jackie. “Victims in Deadly Houston Tesla Crash Identified.” *New York Post*, 21 April 2021.

Sawyer, Robert J. *Wake*. London: Gollancz, 2009.

— — —. *Watch*. London: Gollancz, 2010.

— — —. *Wonder*. London: Gollancz, 2011.

Schelde, Per. *Androids, Humanoids, and Other Folklore Monsters*. New York: New York University Press, 1993.

- Scholem, Gershom G. *On the Kabbalah and Its Symbolism*. Translated by Ralph Manheim. London: Routledge & Kegan Paul, 1965.
- Scholem, Gershom G, and Moshe Idel. "Golem." In *Encyclopaedia Judaica*, edited by Michael Berenbaum and Fred Skolnik, 735-38. New York City: Macmillan Reference, 2007.
- Scott, Ridley. *Blade Runner: Director's Cut*. United States: Warner Bros., 1991. DVD.
- Searle, John R. "Minds, Brains and Programs." Chap. 2 In *Artificial Intelligence: The Case Against*, edited by Rainer Born, 18-40. Kent: Croom Helm, 1988.
- Šedinová, Jiřina. "The Jewish Town in Prague." In *Rudolf II and Prague*, edited by Eliška Fučíková, 302-09. Great Britain: Thames and Hudson, 1997.
- Shakespeare, Tom. *Disability Rights and Wrongs Revisited*. London: Routledge, 2014. Second edition. 2006.
- Shanker, S G. "The Decline and Fall of the Mechanist Metaphor." Chap. 5 In *Artificial Intelligence: The Case Against*, edited by Rainer Born, 72-131. Kent: Croom Helm, 1988.
- Shelley, Mary. *Frankenstein, or the Modern Prometheus*. Ashland: Blackstone Audio, Inc., 2008.
- Sherwin, Byron L. *The Golem Legend: Origins and Implications*. Lanham: University Press of America, 1985.
- — —. "Paradox and Irony: The Thought of Judah Loew of Prague." In *Path of Life: Rabbi Judah Loew Ben Bezalel Ca. 1525-1609*, edited by Alexandr Putík, 84-121. Czechia: Academia, 2009.
- Short, Sue. "The Measure of a Man? Asimov's Bicentennial Man, Star Trek's Data, and Being Human." *Extrapolation: A Journal of Science Fiction and Fantasy* 44, no. 2 (2003): 209-23.
- Sidon, Efraim K. "Nomen Omen or, the High Rabbi Lion." In *Path of Life: Rabbi Judah Loew Ben Bezalel Ca. 1525-1609*, edited by Alexandr Putík, 18-27. Czechia: Academia, 2009.
- Simmons, Dan. *Endymion*. Newark: Audible Studios, 2009.
- — —. *The Fall of Hyperion*. Newark: Audible Studios, 2008.
- — —. *Hyperion*. Newark: Audible Studios, 2008.
- — —. *The Rise of Endymion*. Newark: Audible Studios, 2009.

Singer, Isaac Bashevis. "The Golem Is a Myth for Our Time." *The New York Times*, 12 August 1984, 1.

Singer, Isaac Bashevis, and Uri Shulevitz. *The Golem*. New York: Farrar, Straus and Giroux, 1996. 1982.

SOMA. Frictional Games, Sweden.

Spielberg, Stephen. *A.I. Artificial Intelligence*. United States of America: Warner Bros. & DreamWorks, 2001. DVD.

Sponsler, Claire. "Cyberpunk and the Dilemmas of Postmodern Narrative: The Example of William Gibson." *Contemporary Literature* 33, no. 4 (1992): 625-44.

Suvin, Darko. *Metamorphoses of Science Fiction: On the Poetics and History of a Literary Genre*. New Haven: Yale University Press, 1980.

— — —. "Narrative Logic, Ideological Domination, and the Range of Science Fiction: A Hypothesis with a Historical Test (Logique Narrative, Dominate Idéologique Et L'éventail De La S-F: Hypothèse Et Épreuve Historique)." *Science Fiction Studies* 9, no. 1 (1982): 1-25.

— — —. "On the Poetics of the Science Fiction Genre." *College English* 34, no. 3 (1972): 372-82.

Taylor, Carol A. "Edu-Crafting a Cacophonous Ecology: Posthumanist Research Practices for Education." Chap. 1 In *Posthuman Research Practices in Education*, edited by Carol A Taylor and Christina Hughes, 5-24. London: Palgrave Macmillan, 2016.

Taylor, Dennis E. *We Are Legion (We Are Bob)*. Newark: Audible Originals, 2016.

Torrance, Steve. "Machine Ethics and the Idea of a More-Than-Human Moral World." Chap. 7 In *Machine Ethics*, edited by Michael Anderson and Susan Leigh Anderson, 115-37. United Kingdom: Cambridge University Press, 2011.

Trussler, Meryl. "The Fantastic Adventures of No-Body: Mechanisms of Cyborg Disembodiment in Five Texts by Women Authors." Master's Thesis, Lund University, 2014.

The Turing Test. Square Enix, UK.

Villeneuve, Denis. *Blade Runner 2049*. United States: Warner Bros. Pictures & Sony Pictures Releasing, 2017. Cinema.

Vincent, Sam, and Jonathan Brackley. *Humans*. United Kingdom: Channel 4, AMC Studios, & Kudos, 2015.

Vinge, Vernor. "The Coming Technological Singularity: How to Survive in the Post-Human Era." In *Vision 21: Interdisciplinary Science and Engineering in the Era of Cyberspace*, 11-22.

NASA Lewis Research Center: San Diego State University, 1993.

— — —. *A Fire Upon the Deep*. New York City: Macmillan Audio, 2010.

Vint, Sherryl. *Bodies of Tomorrow: Technology, Subjectivity, Science Fiction*. Buffalo: University of Toronto Press, 2007.

Vonnegut, Kurt. *Player Piano*. Newark: Audible Studios, 2009.

Wachowski, Lana, and Lilly Wachowski. *The Matrix Reloaded*. Australia & United States: Warner Bros. & Roadshow Entertainment, 2003. Netflix.

Wakabayashi, Daisuke. "Self-Driving Uber Car Kills Pedestrian in Arizona, Where Robots Roam." *The New York Times*, 19 March 2018.

Walker, Nick. "Neurodiversity: Some Basic Terms & Definitions."

<http://neurocosmopolitanism.com/neurodiversity-some-basic-terms-definitions/>.

Watson, Melody. "Ancillary Pronouns: (Trans)Gendering the 'Imperial Radch' Trilogy."

(2017). Published electronically 23 January. <http://strangehorizons.com/non-fiction/articles/ancillary-pronouns-transgendering-the-imperial-radch-trilogy/>.

Wegener, Paul, and Carl Boese. *The Golem: How He Came into the World*. PAGU, 1920.

Wells, Martha. *All Systems Red*, vol. 1, *The Murderbot Diaries*. Landover: Recorded Books, 2017.

— — —. *Fugitive Telemetry*, vol. 6, *The Murderbot Diaries*. Landover: Recorded Books, 2021.

Westfahl, Gary. "Space Opera." Chap. 14 In *The Cambridge Companion to Science Fiction*, edited by Edward James and Farah Mendelsohn, 197-208. Cambridge: Cambridge University Press, 2012.

Whedon, Joss. *Avengers: Age of Ultron*. Marvel Studios, 2015.

Wiener, Norbert. *God & Golem, Inc.: A Comment on Certain Points Where Cybernetics Impinges on Religion*. London: Chapman & Hall, 1964.

Wolfe, Gary K. "The Artifact as Icon in Science Fiction." In *Evaporating Genres: Essays on Fantastic Literature*, edited by Gary K Wolfe. Middletown: Wesleyan University Press, 2011.

— — —, ed. *Evaporating Genres: Essays on Fantastic Literature*. Middletown: Wesleyan University Press, 2011.

— — —. *The Known and the Unknown: The Iconography of Science Fiction*. Kent: Kent State University Press, 1979.

Yaszek, Lisa. *Galactic Suburbia: Recovering Women's Science Fiction*. Columbus: Ohio State University Press, 2008.

Yudkowsky, Eliezer. "Artificial Intelligence as a Positive and Negative Factor in Global Risk." In *Global Catastrophic Risks*, edited by Eliezer Yudkowsky, Nick Bostrom and Milan M Ćirković, 1-45. Berkeley: Machine Intelligence Research Institute, 2008.

Yurtsever, Ekim, Jacob Lambert, Alexander Carballo, and Kazuya Takeda. "A Survey of Autonomous Driving: Common Practices and Emerging Technologies." *IEEE Access* 8 (2020): 58443-69.

Zipes, Jack, ed. *The Sorcerer's Apprentice: An Anthology of Magical Tales*. Princeton: Princeton University Press, 2017.