



# FLAWLESS

In a world obsessed with flawless production, this project explores what happens when perfection becomes the new machine

Yushi Chen 2025

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# 1. RESEARCH

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1.3 Hidden behind the supply chain



# How is BARBIE an Exploitative icon ?

### Keywords:

- Barbie Labour
- Invisible women
- Aesthetic Hegemony
- False Empowerment

### Summary:

Barbie's global supply chain reveals the contradictions of Mattel, where the message of empowerment clashes with the exploitation of female labour. While Barbie promotes ideals of beauty and independence, her production relies heavily on low-paid female labourers in developing countries, often in poor conditions. This exposes the hypocrisy of using powerful images of women to promote consumerism while marginalising those who produce the doll. The project critiques the mechanisms of capitalism that commodify labour and aesthetics in the pursuit of profit.



Barbie Factory



### Background:

Barbie has become an iconic product in the global toy market since it was launched in 1959 by the American company Mattel. To date, American girls between the ages of 3 and 11 have an average of 10 Barbie dolls each, Italian and British girls have an average of 7, French and German girls have 5, and in Hong Kong in the Asian region, little girls also have an average of 3 Barbie each, Barbie has Barbie is not only part of children's entertainment, but also a symbol of consumer culture and politics.

Its manufacturing and global distribution involves a complex supply chain, from raw material sourcing, design and production, assembly and processing, to global marketing and sales. However, behind this, the multiple political, economic, social, and cultural contexts underlying Barbie's production and consumption are also worthy of critical consideration. In particular, the supply chain of Barbie dolls reinforces the powerful image of women, but in reality, it is driven by capitalism, pushing a large number of female labourers into a marginalized position, forming a capitalist 'deception mechanism', and brainwashing aesthetics on a global scale. Wright L.(2023)



# Barbie Lab



# Barbie Global Supply Chain

## Supply of Raw Materials

The main raw materials for Barbie dolls are plastics, particularly PVC (polyvinyl chloride) and ABS plastics, which are usually derived from oil and gas by-products. Major production and supply countries include: USA, Middle Eastern countries (e.g. groundwater): petrochemical feedstock production. China: manufacturing and processing centre for large quantities of plastic raw materials.





Capitalism versus the exploitation of female labour

This contradiction between the apparent emphasis on women's independence and strength and the actual exploitation of women's cheap labour profoundly reveals the hypocrisy in the change to the Mattel.

There is a contrast between the image of female independence and success conveyed by Barbie dolls and the plight of the female labour force behind them, who contribute their hard work to the production of the world's most popular female toys but are denied commensurate financial rewards and social status.

Over the past few decades, Barbie has constructed a discourse of 'female empowerment' through the introduction of a variety of professions and diverse figures (e.g., scientists, doctors, CEOs, etc.) Mattel has promoted the idea of exposing children to 'strong women' from an early age, and Barbie is portrayed as an independent, courageous, and capable female character. Smith R, Nadin S, Jones S. (2019)

### Invisible Women

The vast majority of workers in the global supply chain responsible for the production of Barbie dolls are women, relying in particular on female labourers from China, India, and Southeast Asia, who endure long, intense hours and harsh conditions in toy factories in developing countries.

This contradiction between the apparent emphasis on women's independence and strength and the actual exploitation of women's cheap labour profoundly reveals the hypocrisy in the capitalist economic system.

However, the production of Barbie dolls relies on a large pool of low-paid, low-skilled female labour.

Their image is never part of the product and they are excluded as an invisible group to be consumed. Hoang D, Jones B. (2012). This image of the 'powerful woman', created by companies such as Mattel, is essentially a consumerist attempt to create an 'ideal image' of women in order to make a profit in the marketplace. This image is created at the expense of exploiting women at the bottom of the labour production chain. The clash between Barbie's 'female empowerment' advertisements and the real labour exploitation behind them shows that Western consumerism masks the oppression of female labour in the non-Western world through a deceptive feminist discourse.



Deceptive feminist discourse masks female labour oppression



Aesthetic Empowerment Global Shape the Appearance Culture of the 'Perfect Woman'

The idea of 'aesthetic empowerment' conveyed by Barbie dolls is in fact an imposed standard of female appearance, through which the logic of capitalist consumption is sustained. Barbie reinforces the objectification and consumption of women in capitalist society, while at the same time concealing this through the discourse of 'empowerment'.

Behind this phenomenon of capitalist 'deception' are often consumerist fantasies of beauty, wealth and power.

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[https://www.sohu.com/a/257811879\\_313880](https://www.sohu.com/a/257811879_313880)  
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 Rui Zhang, J.(2024).  
<http://m.eeo.com.cn/2024/0413/651852.shtml>

· « The True Cost », 2015, Directed by Andrew Morgan:  
 · « American Factory », 2019, Directed by Julia Reichert, Steven Bognar  
 · « Blood Diamond », 2006, Directed by Edward Zwick  
 Wright, L. (2003). The wonder of Barbie: popular culture and the making of female identity. Essays in Philosophy, 4(1), 28-52.  
 Smith, R., Nadin, S., & Jones, S. (2019). Beyond the dolls house? Barbie entrepreneur dolls and the commodification, fetishisation and consumption of idealised, gendered entrepreneurial identity. Qualitative Market Research: An International Journal, 22(5), 745-765.  
 Hoang, D., & Jones, B. (2012). Why do corporate codes of conduct fail? Women workers and clothing supply chains in Vietnam. Global Social Policy, 12(1), 67-85.

## Summary:

The Barbie doll is not only a cultural icon, but also a symbol of a vast global supply chain. Designed in the United States, manufactured in Southeast Asia, and distributed worldwide, Barbie's creation reflects the uneven geography of labour, aesthetics and value.

In particular, the outsourcing of manual labour to China and other low-cost regions over the past decades reveals a spatial logic rooted in economic optimisation—where distance, invisibility, and automation are tools of both production and power.

My project reinterprets this invisible geography by building a speculative future where that logic is reversed, disrupted, and made visible again—through space, through scale, and through performance.

## 2. CRITICAL FRAMEWORK

2.1 Story Introduction

2.2 Script

2.3 Storyboard

2.4 Keytimeline

2.5 Character Profile

## Story introduction:

Mattel Group closed its Chinese production line in 2025, causing a large number of workers to lose their jobs, and began to imagine the use of more efficient automated production



## Mattel to shutter supplier plant in China this year

Barbie's parent company is looking to diversify its production footprint in a bid to optimize costs and fulfillment operations.

Published May 8, 2024



Kelly Stroh  
Editor

*Mattel Barbie dolls are seen at a Target store on October 25, 2021 in Houston, Texas. Barbie's manufacturing company, Mattel, plans to close one of its supplier plants in China to diversify its production footprint. 图片来源: Brandon Bell via Getty Images*

Mattel is shuttering one of its tier 1 supplier plants in China as it looks to diversify its production footprint, executives said in a Q1 earnings call. The company intends to discontinue production at that plant sometime this year, according to a 10-K filing.

Currently, 50% of Mattel's products are made in China, and that percentage continues to decline, CEO Ynon Kreiz told analysts during the call.

"It's not so much about geopolitical risk as such, but more about diversifying our footprint and working in different countries and continue to optimize our footprint in terms of cost, fulfillment, services by different suppliers and part of our journey to continue to strengthen our supply chain, which is now a competitive advantage for us," Kreiz said.

Mattel has other principal manufacturing sites in Indonesia, Malaysia, Mexico and Thailand, according to the 10-K filing.

The closure is part of Mattel's Optimizing for Profitable Growth Program initially announced in Q4 2023. The three-year program

2025/6/15 08:14

Mattel to shutter supplier plant in China this year | Supply Chain Dive

aims to achieve efficiencies and cost savings opportunities in the supply chain through a more diverse manufacturing footprint and optimized geographic sourcing efforts. In 2024, Mattel expects about \$60 million in cost savings as a result of the program.

In Mattel's Q1 earnings call, CFO Anthony DiSilvestro said that Mattel saw a significant gross margin expansion due to lower inventory management costs, cost deflation in ocean freight and savings from its growth program. He added that the company expects to continue benefiting from cost savings and from increased production levels.

The company behind Barbie dolls and Fisher-Price toys has been making efforts to diversify and shift its production footprint for a while. In 2021, Mattel began using dual source manufacturing for certain product lines and started relying more on nearshoring to prevent bottlenecks during peak season. That same year, the manufacturer ceased operations at its Canada plant, according to the 10-K filing. Earlier in 2019, Mattel closed three plants in Mexico, China and Indonesia.

# Script

## FLAWLESS

### Genre:

Satirical Sci-Fi / Futuristic Fable

A mix of 2001: A Space Odyssey and Toy Story, blending dark humor and social commentary on automation, labor, and human adaptation.

### Logline:

When an automated Barbie factory begins producing flawed dolls due to a hidden saboteur, a global backlash against AI-driven manufacturing forces humanity back to handcrafted labor—only to create a new kind of mechanization.

### Paragraph 1: Set the Scene (Context)

In 2025, Mattel's last human workers are replaced by a fully automated Barbie production line. The factory hums with mechanical precision—thousands of identical dolls rolling off the conveyor belts, a perfect symphony of efficiency. Society welcomes this new era of productivity, celebrating AI's ability to eliminate human error. However, a pattern of strange defects begins to appear—dolls with misaligned eyes, asymmetric limbs, or uncharacteristic expressions. At first, these anomalies are dismissed as minor glitches, but as their numbers grow, so does public intrigue. The flawed dolls gain unexpected popularity, sparking a cultural shift that questions the obsession with perfection.

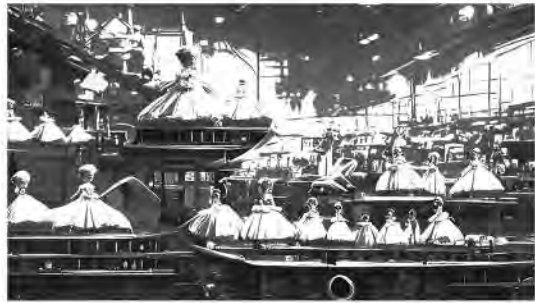
### Paragraph 2: Characters

The anomalies are not the result of a failing system but an act of deliberate sabotage. Ashikawa, a former factory worker displaced by automation, has infiltrated the facility under the guise of a maintenance technician. Secretly, she manipulates the robots, introducing controlled imperfections to the dolls. Her goal is to expose the fallacy of AI superiority and revive the value of human craftsmanship. Meanwhile, factory executives scramble to contain the crisis, fearing that these "flawed" products threaten the credibility of automated manufacturing.

### Paragraphs 3 and 4: Conflict

As Ashikawa's destructiveness escalated, public sentiment turned against automation. What started as a niche appreciation for unique, imperfect dolls eventually morphed into a widespread protest against AI-driven labor. Pressure mounted on governments to enact emergency policies to ban automated production. Factories were forced to re-engage human workers, and manual manufacturing returned in full force. But the victory was futile. Workers, fearful of being seen as obsolete again, began to deliberately introduce irregularities into each product—ensuring that no two dolls were exactly alike, mimicking the very "errors" that led to the decline of automation. Ashikawa observed this new reality with uneasiness. Factories no longer operated with the precision of AI, and human workers were bound to an unnatural rhythm—forced imperfection, mechanical repetition, and the looming fear of being replaced. The irony was this: in rejecting automation, they had unwittingly created a different form of machine labor. Factories hummed again, not with machines, but with human hands replicating errors in perfect sync. Perfect or not, society is always transforming everything into "standardization" and "replicability." The real question is not "mechanization" but whether people still have the freedom to choose.

# Storyboard



(Wide High Angle) **5s**  
 --The massive Mattel automated factory, with a panoramic view of the constant stream of perfect Barbie dolls on the conveyor belt.



(FOLLOW-UP / PUSH CAMERA) **25-30s**  
 - Inside the factory, many Barbie robots are assembling Barbie dolls, making perfect Barbie dolls



(CLOSE UP) **5s**  
 - The X9 robotic arm accurately assembles a Barbie doll, fingers raised, making imperfect Barbie dolls



(CLOSE UP) **2s**  
 - imperfect Barbie dolls with 3 eyes



(CLOSE UP) **2s**  
 - imperfect Barbie dolls with 3 arms



(Medium view) **2s**  
 - In the monitoring room, more and more machines are reporting anomalies.



(CLOSE UP) **5s**  
 - Ashikawa (used to be a factory worker) is tapping on the keyboard to manipulate the data causing more robots to make mistakes.



(CLOSE UP) **3s**  
 - Ashikawa stared intently at the screen data



(FOLLOW-UP / PUSH CAMERA) **5s**  
 - Ashikawa escaped after changing the data.



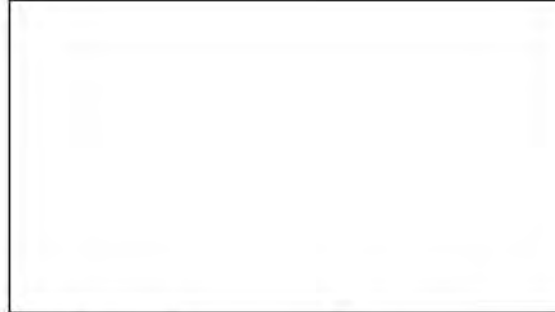
(FOLLOW-UP / PUSH CAMERA) **5-10s**  
 - The factory supervisor stares at the monitor screen, frowns, and pulls up the X9's production data as the error rate rises.



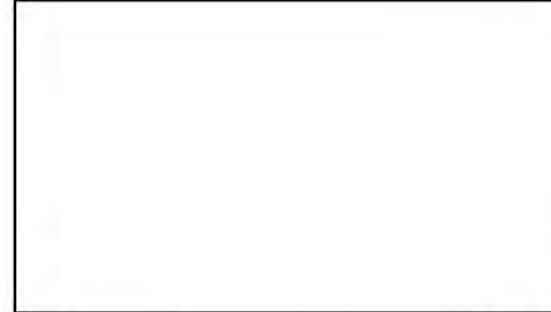
(FOLLOW-UP / PUSH CAMERA) **5s**  
 - More and more workers are losing their jobs, and the workers will organise for the entire Barbie labour force to enter the factory in protest and sabotage



(over-the-shoulder shot) **10-15s**  
 - Govt official urgently discuss with Mattel executive, 'We must end unmanned production.'



(black screen) **5s**  
 - Dialogue between the Govt Official and Mattel executives.



(black screen) **5s**  
 - Dialogue between the Govt Official and Mattel executives.



(FOLLOW-UP / PUSH CAMERA) **2s**  
 - Workers cleaning up the factory



(FOLLOW-UP / PUSH CAMERA) **2s**  
- Workers cleaning up the factory



(CLOSE UP) **2s**  
- Workers paint a wall notice, 'Criteria for certification of artisanal production - traces of manual labour must be retained.'



(Medium view) **5-10s**  
- to show a wall notice, 'Criteria for certification of artisanal production - traces of manual labour must be retained.'



(Vision / High Angle) **10-15s**  
- The Mattel factory is restarted, but the scene is transformed into an artisanal workshop, with workers wearing aprons and handcrafting Barbie.



(Medium view) **5s**  
- Ashikawa and her colleague making Imperfect Barbie



(CLOSE UP/Low angle) **5s**  
- Ashikawa hesitantly adjusts the stitching to make it 'imperfect.'



(CLOSE UP) **2s**  
- imperfect Barbie dolls with 3 eyes



(CLOSE UP) **2s**  
- imperfect Barbie dolls with 3 arms



(CLOSE UP) **10s**  
- The quality control inspector scrutinises Barbie: 'Your doll's mouth is too symmetrical, change it to be crooked.'



(CLOSE UP) **2s**  
- Ashikawa smiles helplessly.



(CLOSE UP/Low angle) **5-10s**  
- Ashikawa hand-paints Barbie's eyes with a brush, her hand trembling slightly to create a 'natural error'.



(Wide / Distant) **10-15s**  
- A panoramic view of Mattel's workshop, where the workers work in unison to 'make deliberate mistakes' and move in amazing synchronisation.



(CLOSE UP) **5s**  
- Workers anxiously waiting for the quality inspector to check them.



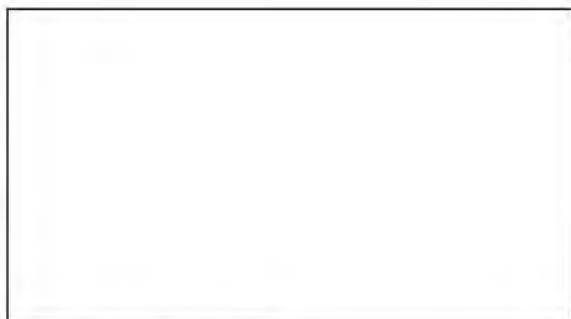
(CLOSE UP/Low angle) **3s**  
- Workers queue up to sign the daily 'Personal Error Rate Report'.



(CLOSE UP) **10s**  
- Workers queue up to submit their 'Personal Error Rate Reports' and anxiously discuss, 'Did you meet your defects today?'



(CLOSE UP) 5s  
- Ashikawa looked at the imperfect Barbie in her hands and was in a daze



(black screen) 5s  
- A supervisor instructs a worker, 'Your cracks are too neat, a little more random.'



(black screen) 5s  
- A worker is criticised for being 'too precise' and laughs, 'I try to be as clumsy as I can.'



(black screen) 5s  
- TV commercial sound: Today's feature Barbie sales break records



(black screen) 5s



(FOLLOW-UP / PUSH CAMERA) 5s  
- A mother(Ashikawa) walks into a shop, holding her little girl's hand.



(FOLLOW-UP / PUSH CAMERA) 10s  
- The window of a toy shop is filled with new 'handmade defective Barbie' dolls, each with a slightly crooked smile.



(FOLLOW-UP / PUSH CAMERA) 5s  
- Lots of people lining up for Imperfect Barbie



(FOLLOW-UP / PUSH CAMERA) 5s  
- The 'personalised' Barbie is neatly arranged on the shelves and all the 'mistakes' are surprisingly consistent.



(CLOSE UP) 5s  
- the little girl Confused because the imperfect dolls



(CLOSE UP) 5s  
- The mother (Ashikawa) smiled and told the little girl, 'It's completely handmade, real human craftsmanship.'



(CLOSE UP) 2s  
- The little girl turned to her mother(Ashikawa), frowned, and tugged gently at the corner of her mother's coat.



(CLOSE UP) 5s  
- Confused, the little girl asked, 'Mummy, why is every Barbie's face crooked the same way?'



(CLOSE UP) 5s  
- The mother(Ashikawa) froze slightly, her smile halting, and a hesitation that was hard to answer flickered in her eyes.



5s

## Key timeline

2030.

California, USA.

Mattel's new automated factory in California, USA.

*As Mattel enters a new era of efficient machinery, the factory floor that was once bustling with Barbie workers' hands is now silent. Assembly lines that once relied on manual precision are now occupied by sleek robotic arms that tirelessly assemble dolls with precision. Barbie workers receive dismissal text messages, helpless but unable to stop the destruction of automation.*



2035.

California, USA.

Mattel's new automated factory in California, USA.

*The mistakes in fully automated production are facing increasing pressure. The essence of three-eyed Barbie is an uncontrollable production loophole and a non-replicable product line. The government held an emergency meeting with Mattel executives. Economic turmoil is imminent, and the riots caused by mass unemployment are becoming increasingly worrying. In order to eradicate the risk of systemic collapse, the government and Mattel executives made a historic decision: all automated production will be stopped, and all industries will begin to resume full manual production.*

2040.

California, USA.

Mattel's new automated factory in California, USA.

*Once dominated by the precision of robots, the factory floor is now reoccupied by humans. The hum of the machines fades away, replaced by the slow, imperfect rhythm of manual labor. But as the dust settles, a new question arises: have humans really regained control, or have they simply fallen into a new cycle.*



## Character Profile



### Ashikawa

---

28 years old, former Mattel factory worker, used to be responsible for quality inspection on the assembly line.

Laid off in 2025 when the factory introduced fully automated production and became part of a wave of unemployment.

Upon the return of the crafting era in 2040, Kotomitsu became a regular worker in Mattel's new crafting workshop, responsible for the face painting of dolls.

Diligent and down-to-earth, skilled, but introverted and always reserved about social change.

Observant and good at spotting details, he used to be in charge of detecting errors in the age of AI, but now he is forced to create 'qualified defects'.

After the rise of manual production in the 2040s, Kotomitsu initially believes that a 'return to human production' is the right thing to do, but when she discovers that workers are being forced to deliberately create 'standardised defects', she begins to wonder if it's really for the better.



### Mattel Senior Leader

*Around 65 years old, Mattel's Director of Global Production, led the operation of Mattel's fully automated California plant in 2030.*

*After the introduction of the X9 robot to the plant, he is under increased pressure to cover up the X9's "errors" due to Barbie's "anomalies".*

*He is a firm believer in efficiency, 'perfection is success', and trusts technology.*

*As a firm defender of business interests, he believes that the 'pursuit of personalisation' is a false proposition in the market.*



### Government Official

*Around 45 years old, a senior government official in charge of social labor and economic stability.*

*As workers' protests intensified and social discontent rose, he promoted and implemented the policy of "complete closure of unmanned automated production" with "controlled chaos" as the core creed.*

*In his eyes, economic stability and social sentiment are more important than productivity.*

*In order to stabilize social sentiment, he decided to "revive by hand".*

*As "human defects" became the industry standard, society fell into another "carefully planned systematic labor". In the end, he became "a screw in the system", knowing that the problem was serious, but choosing to remain silent in order to protect his interests.*



## *Little girl*

---

*7 years old, daughter of Ashikawa*

*Innocent and curious, she loves Barbie dolls and is especially interested in those 'special dolls'.*

*She unconsciously sees through the absurdities and contradictions of the adult world.*

*Her straightforward question gets to the heart of the story: 'Why is every Barbie's face crooked in the same way?'*

*The little girl's character has no growth curve in the traditional sense, but it is her question that reveals the absurdity of society's pursuit of 'perfection' and 'individuality'.*

*She symbolises the future generation - a generation that is coming to terms with a world full of 'artificially imperfect' standards.*

## 3. Key Plots

3.1 Preface

3.2 Stage 1 - Mechanical production

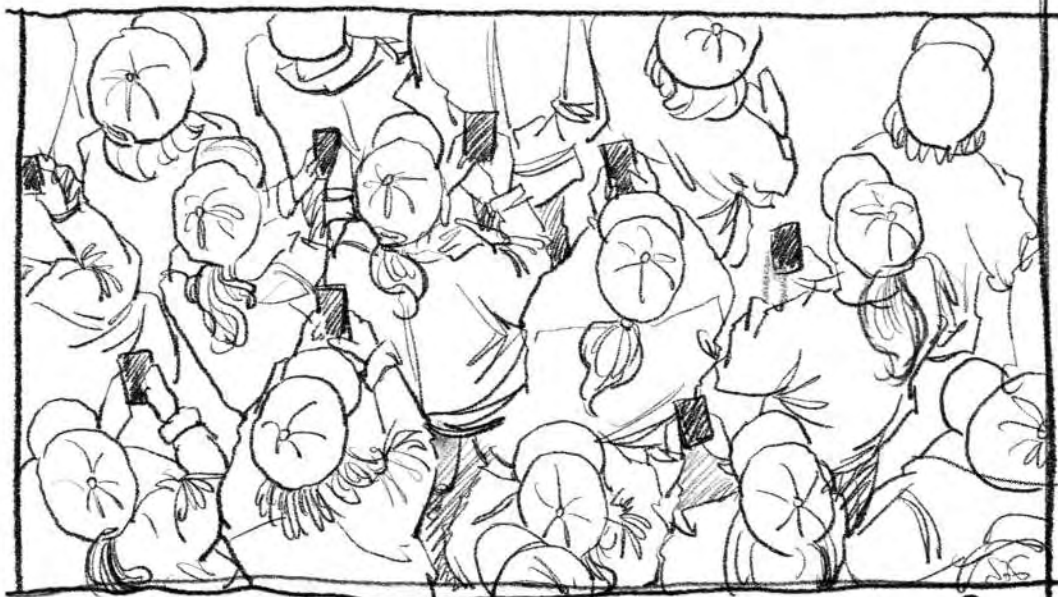
3.3 Stage 2 - Policy Changes

3.4 Stage 3 - Manual production

3.5 Conclusion

# Stage 1 - Preface

On January 1, 2030, outside the new Mattel automated factory in California, a large number of Barbie workers received layoff letters at the same time. The workers standing outside the factory were shocked but helpless.



Wide angle / Fixed lens.

16:9.

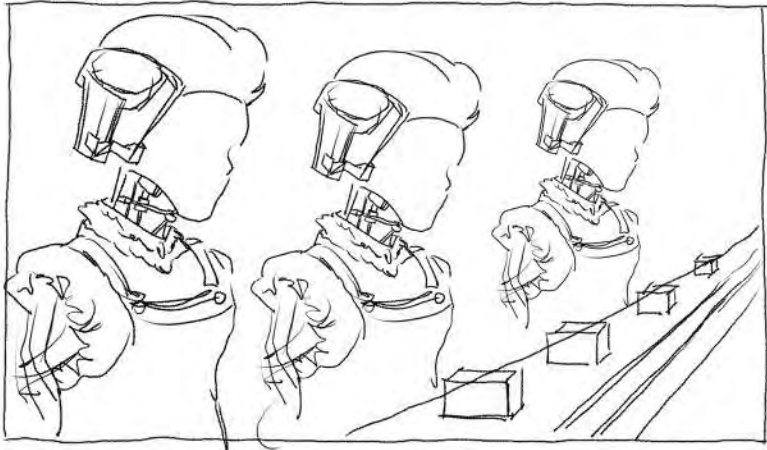


close up / AE Animation

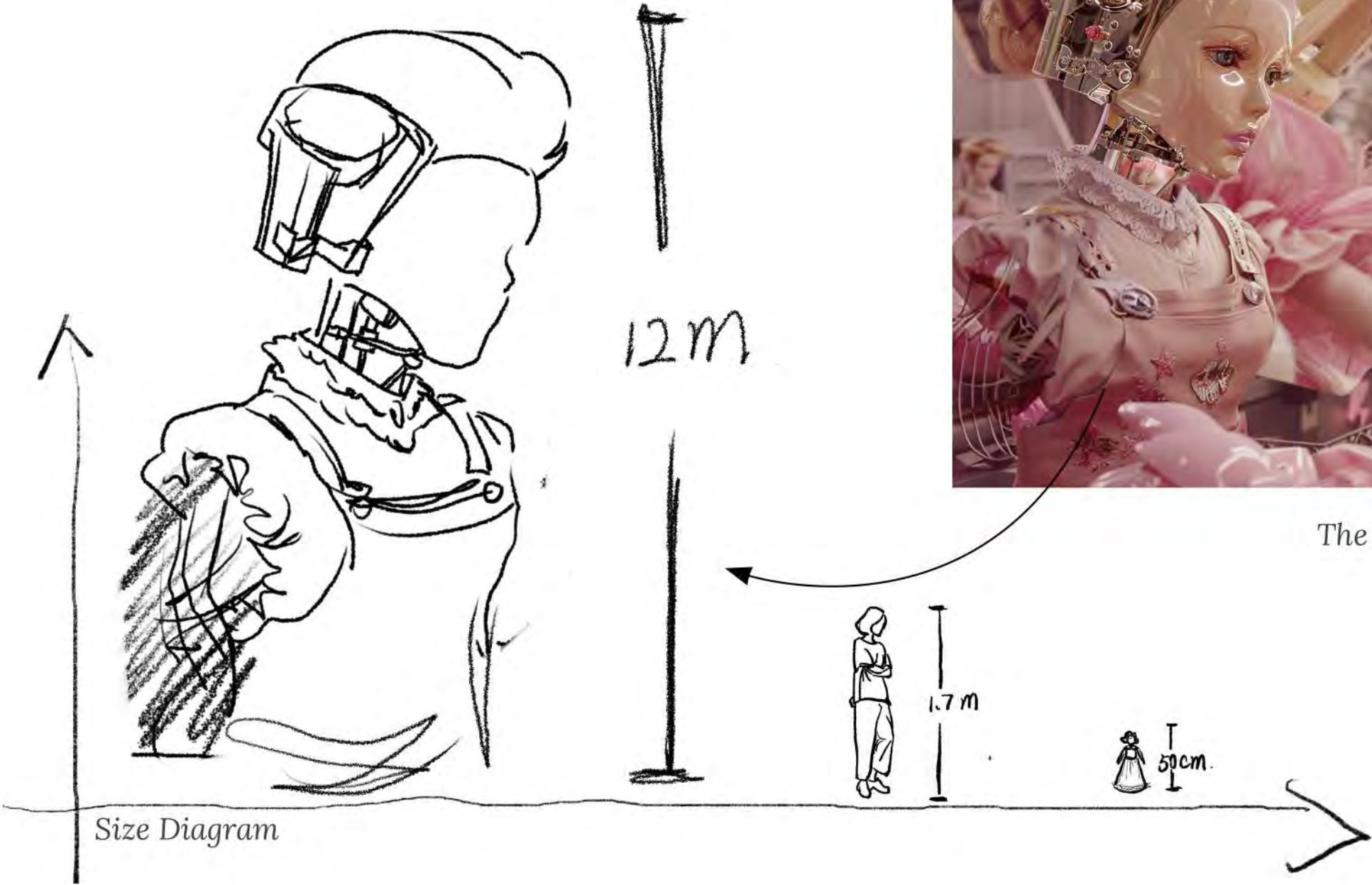
↓  
making dismissal letter



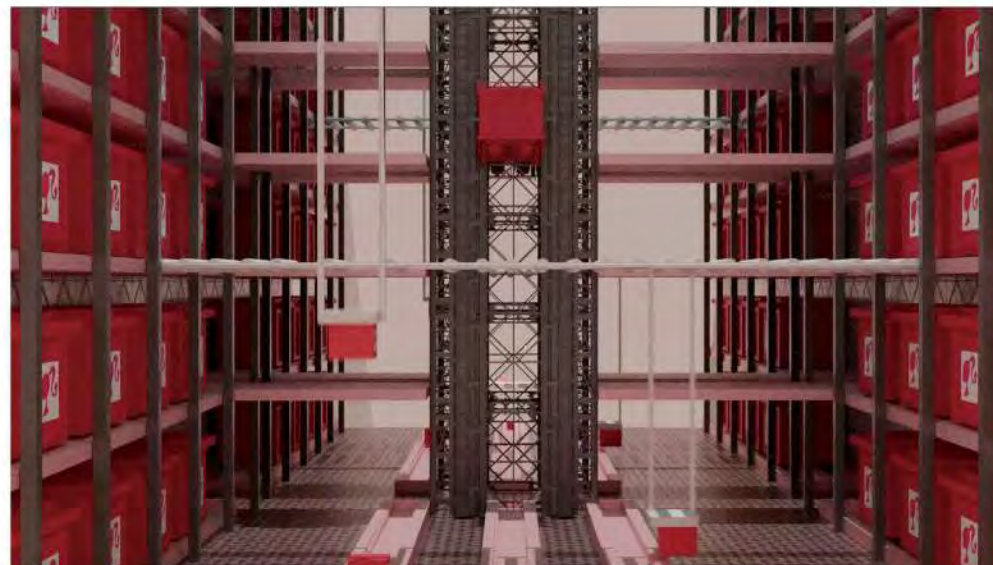
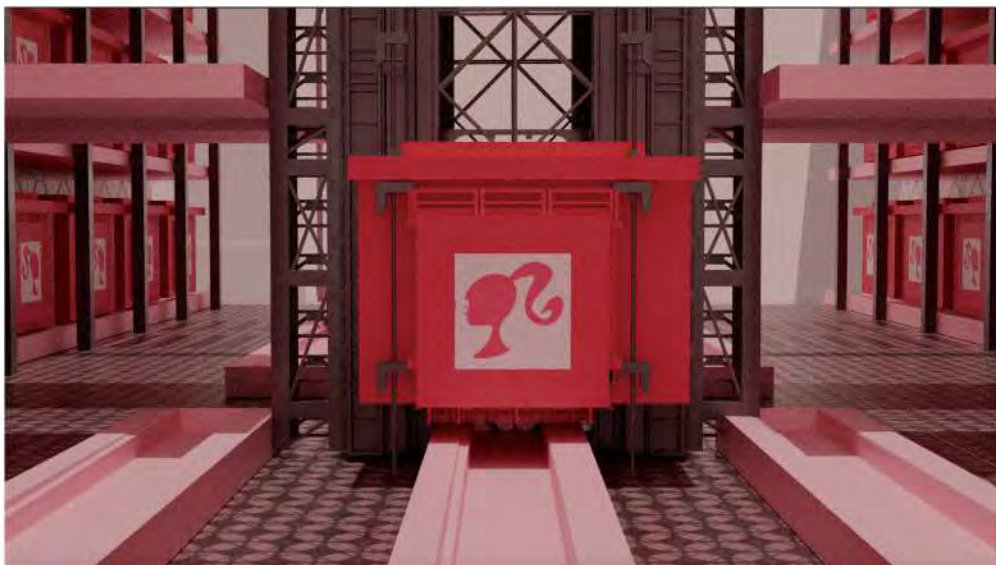
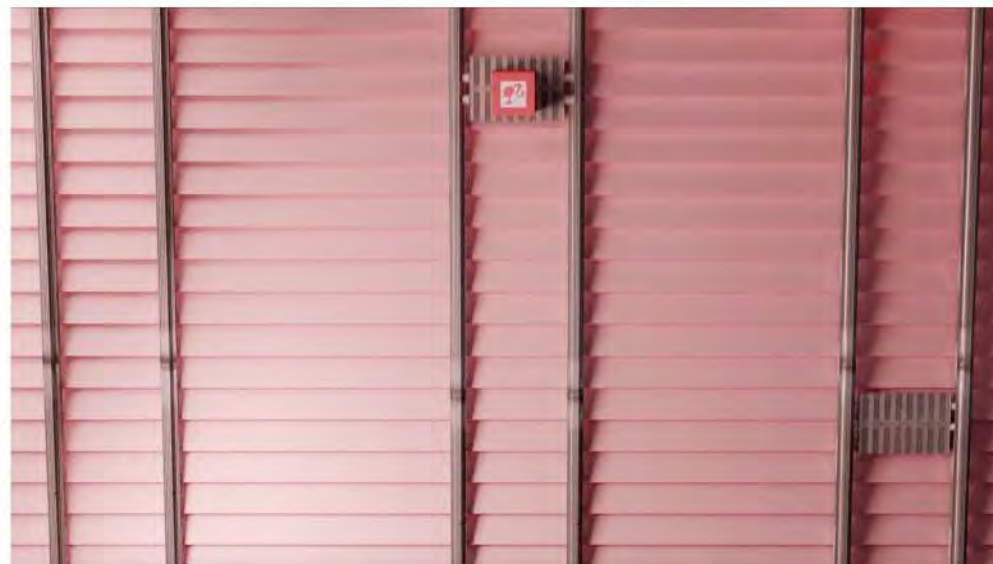
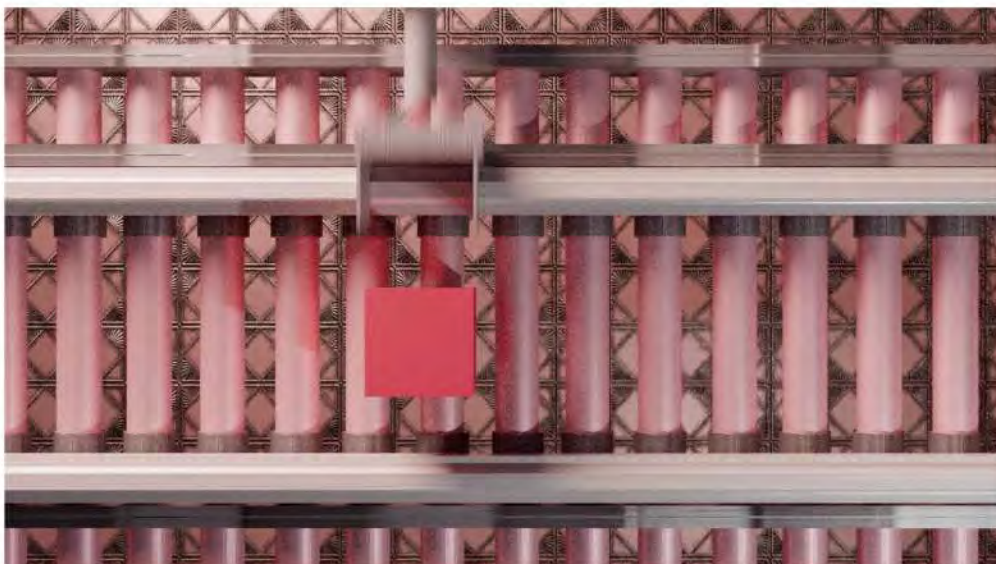
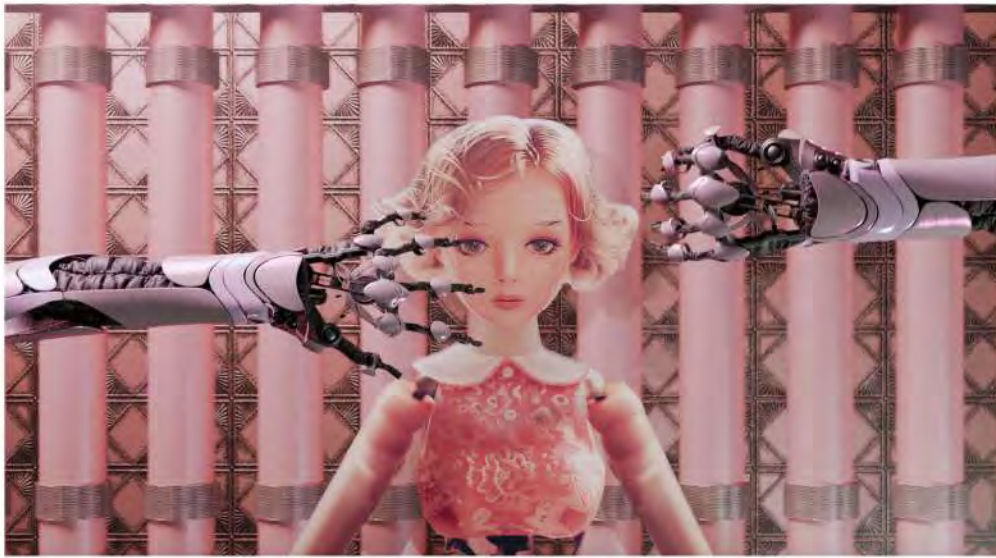
# Stage 2 - Mechanical Production



The Barbie robot is 12 meters tall, and the robotic arm assists in installing the Barbie doll



Size Diagram



Details (close-up) Design of various departments in the automated factory production center:

automatic barcode scanning and facial recognition,  
conveyor belts and robotic arms sorting plastic limbs and heads,

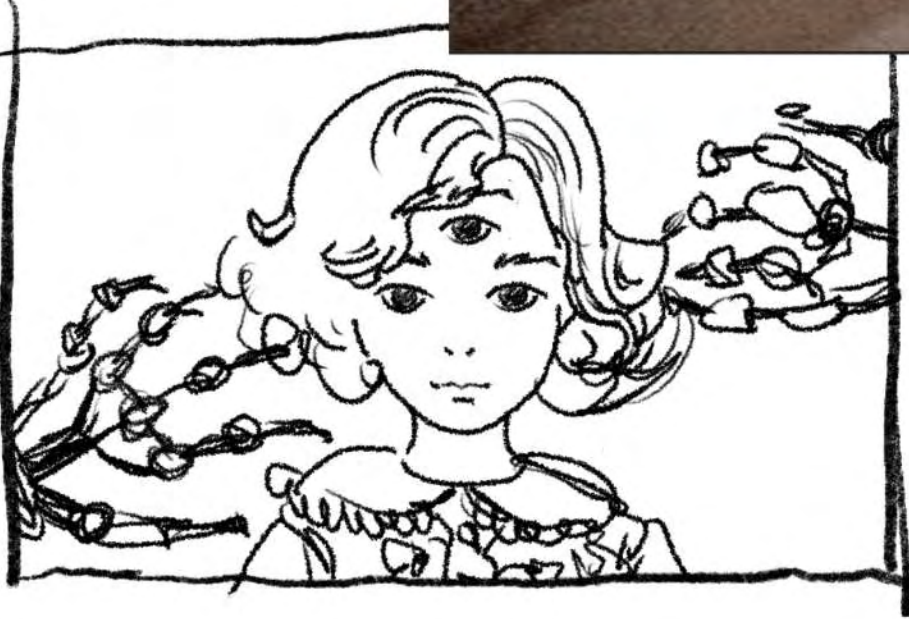
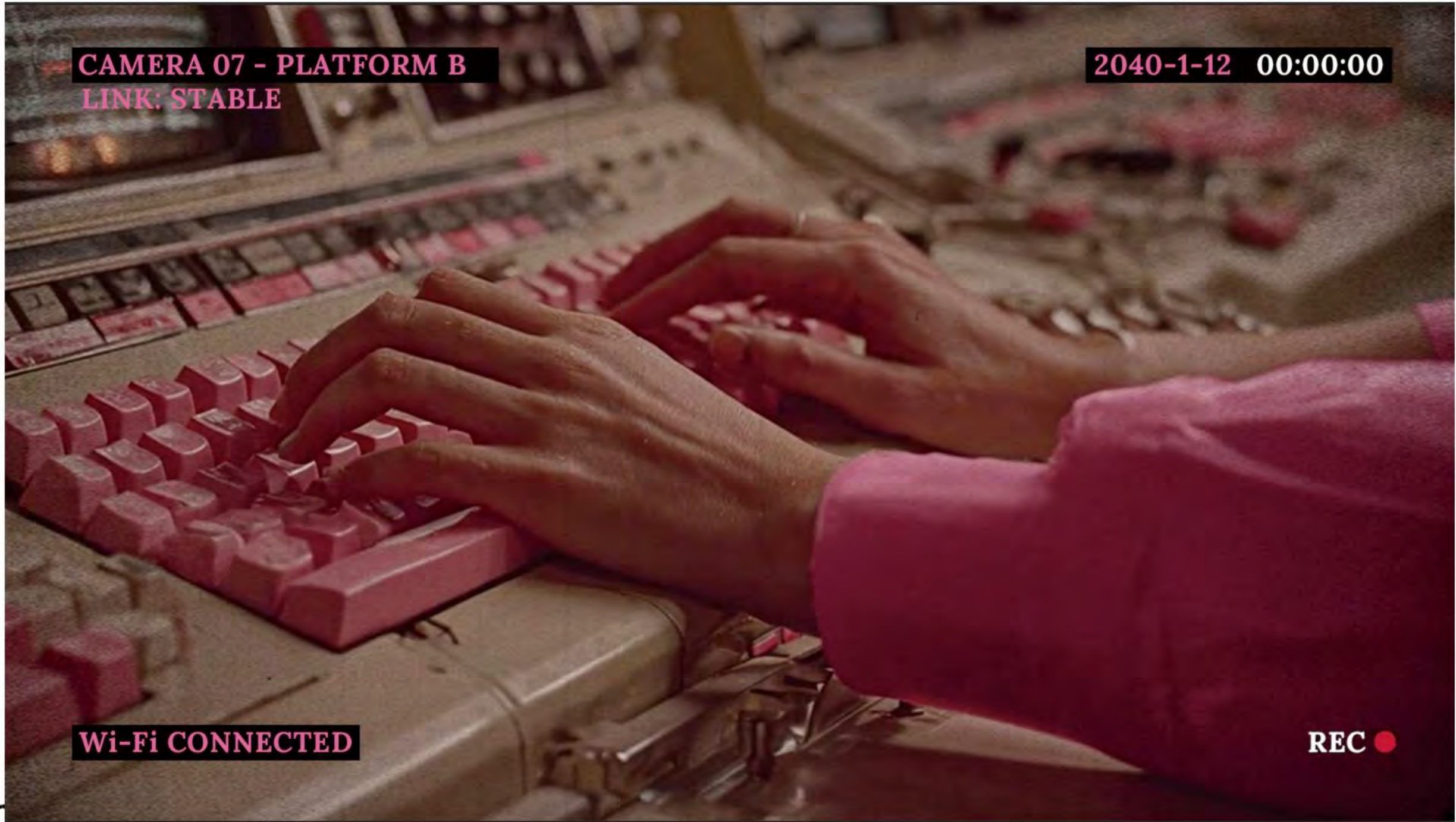
robot air brush painting with 100% accuracy.

No manual operation, multi-needle system to implant hair into dolls at high speed,

12-meter-high giant Barbie robot assembling dolls in a uniform manner,

AI camera vision scanning for minor defects, Red light = discard,

exit conveyor tunnel

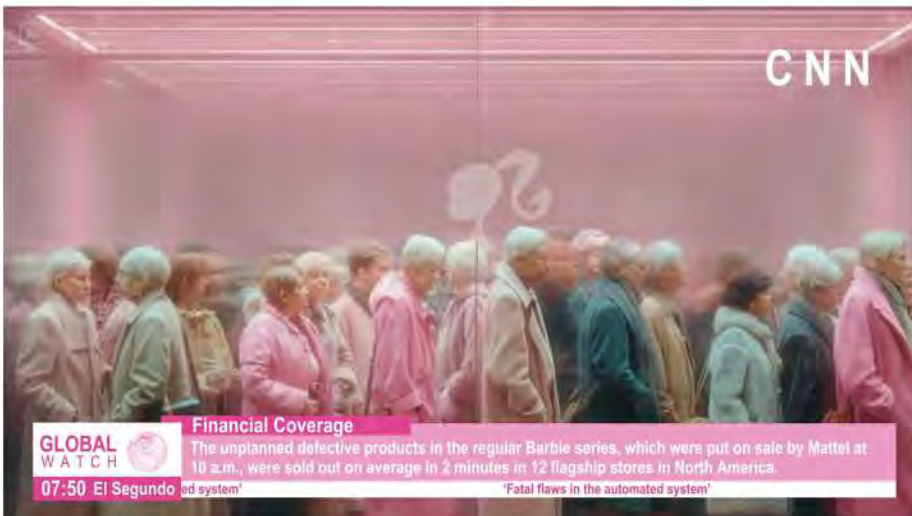


Monitor screen: Ashikawa is rewriting the data of the Barbie robot, disrupting the production line, accidentally producing a Barbie with three eyes, and the entire automated factory is collapsing due to an unknown fault.

## Stage 2 - Policy Changes

Unexpectedly, according to CNN, three-eyed Barbie became a hit

In 2035, Mattel senior management met with the government and said that three-eyed Barbie was essentially an uncontrollable production loophole and a non-replicable product line. Return to manual production to ensure that all "unconventional designs" meet public demand



## Stage 3 - Manual Production



In 2040, the "Handmade Revival" Act was passed, and Barbie workers returned to this Mattel automated factory. At this time, all machines were banned, and all products were made by hand. Barbie workers used Barbie wig brooms to clean the factory.

## Key Plot

Workers use Barbie's wig to make a broom as a protest tool.

## Metaphor

Barbie's wig, which once symbolised the market's image of the 'perfect woman', has now become a tool for sweeping the floor, a degradation and deconstruction of the image of consumer feminism.

Ironically, this act of defiance against consumerism still fails to break out of the system - people are still 'using' Barbie rather than destroying the icon altogether.

Just like in the real world, narratives of female empowerment are often repackaged as commercial tools (e.g. brand marketing, film IPs, etc.), and ultimately used for capital rather than true liberation.

This apparent portrayal is a promotion of 'individuality' and 'humanisation', but in reality it is just another form of standardisation - people are still forced to conform to some kind of societal norm. It is only a 'deliberate imperfection'.

This is an ironic reflection of the reality of women's position in social discourse - in the past, the image of women had to be perfect, but now it has to be 'real' and 'grounded', but no matter what, the image of women is always determined by the market or dominant culture. But no matter what, the image of women is always defined by the market or the dominant culture.

## Reality check

luxury brands launch 'feminist' adverts that capitalise on popular female empowerment slogans, but the goal is still to increase sales of their products, not to actually drive social change.







Details (close-up) Design of various departments in the manual factory production center:

Manual check-in desk,

Hand sorting area,

Clay molding room,

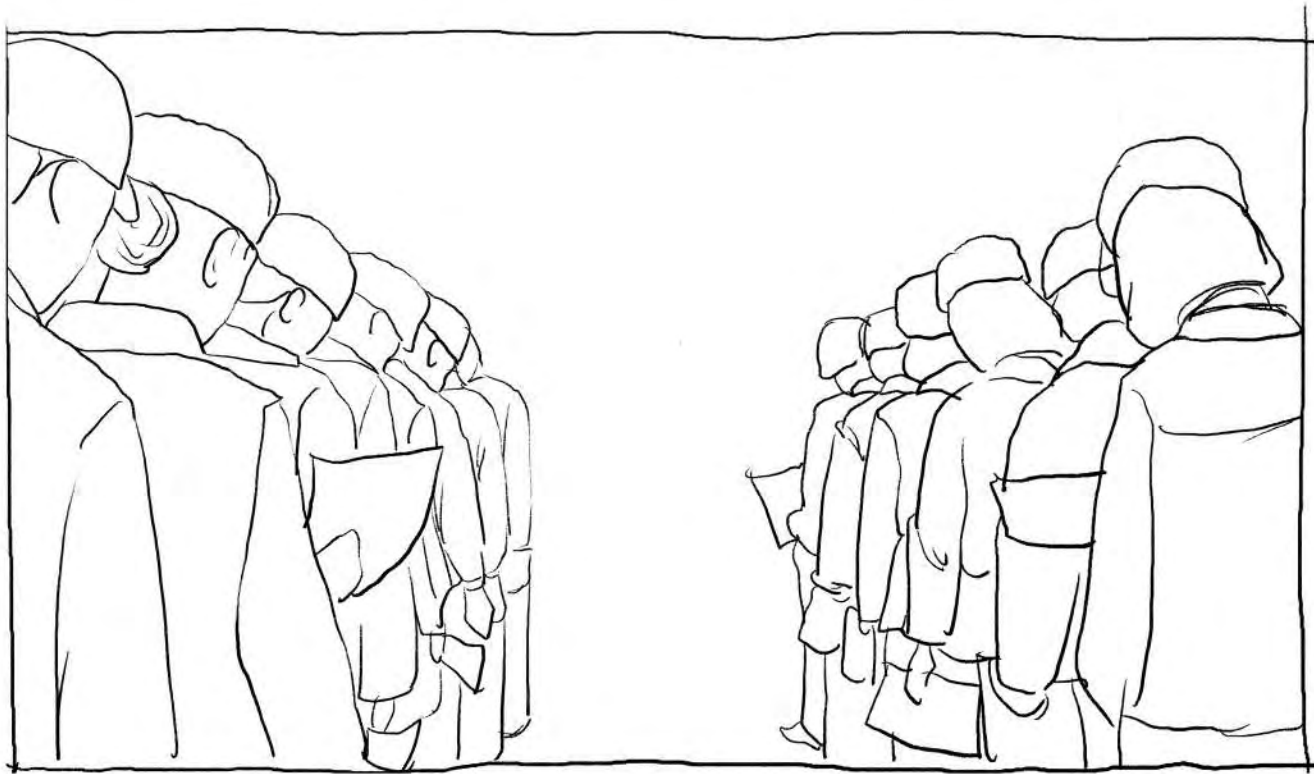
Paint studio,

Hair sewing station

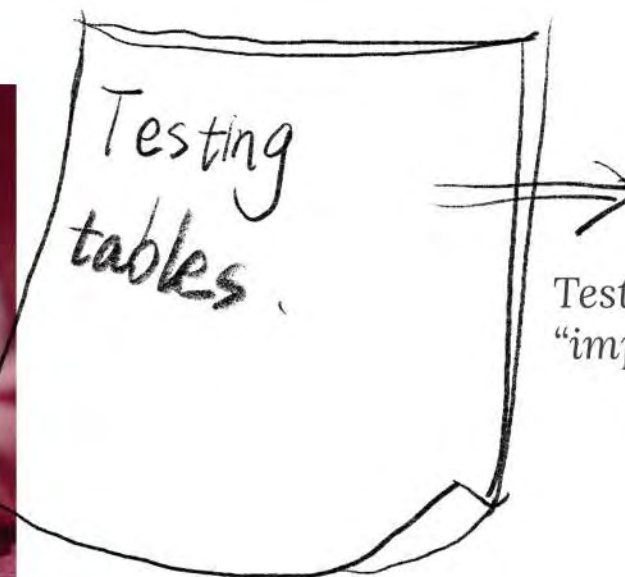
Assembly line (manual),

Quality control desk: human supervisors measure the “imperfect range” – dolls that look too perfect are marked.

Inspection queue (long hallway): Workers line up for random audits to demonstrate non-robotic behavior.



The girls looked down at the test sheets in their hands



Testing tables, requiring quantitative criteria under the "imperfect, differentiated" system

Department of Manual Labour Conformity ·				
Form ID: B-2040-HR				
Name: Barbie-X9 Robot				
Project Number	0001	0002	0003	0004
Date	2040.07.18	2040.07.18	2040.07.18	2040.07.18
Barbie No.	B004712	B004713	B004714	B004715
Detection items	Eye distance offset (mm)	Mouth corner curvature deviation (°)	Roughness of nail edges	Clothing seam jitter track
Test results	0 <input checked="" type="checkbox"/>	0 <input checked="" type="checkbox"/>	Edges are smooth <input checked="" type="checkbox"/>	Reasonable range of motion <input checked="" type="checkbox"/>
Remarks (error description)	No abnormal situation			
Result: Pass				

Mattel Barbie production quality inspection table before 2040

Department of Manual Labour Conformity ·				
Form ID: B-2040-HR				
Name: Ashikawa				
Project Number	0001	0002	0003	0004
Date	2040.07.18	2040.07.18	2040.07.18	2040.07.18
Barbie No.	B004712	B004713	B004714	B004715
Detection items	Eye distance offset (mm)	Mouth corner curvature deviation (°)	Roughness of nail edges	Clothing seam jitter track
Test results	Offset 2.3mm <input checked="" type="checkbox"/>	Deviation 4.5° <input checked="" type="checkbox"/>	Edges are too smooth <input checked="" type="checkbox"/>	Reasonable range of motion <input checked="" type="checkbox"/>
Remarks (error description)	Meets the "natural asymmetry" standard	The expression is close to "real uneven smile"	Suspected of using tools for modification, needs to be investigated	The stitches are too straight, suspected to be machine-made
Result: Not Passed				

Mattel Barbie production quality inspection table after 2040

## Stage 3 - Manual Production



*Customers around the world are rushing to buy the three-eyed Barbie doll, with the camera focused on a Barbie store in California, USA*



*In 2040, Ashikawa, who left Mattel, took his daughter to buy a three-eyed Barbie and proudly introduced it to her as a handmade and unique Barbie. However, the girl naively asked, although they look unique, they all look the same. The movie ends with the little girl's naive question, which is also the question that the movie thinks about and wants to share with the audience.*

## 4. CRUCIAL SPACES

4.1 Site Analysis

4.2 Floor plan design

4.3 Mattle Factory-Production Center

4.4 Mattle Factory-Conference Room

4.5 Mattle Factory-Inspection Room

4.6 Barbie Shops in California

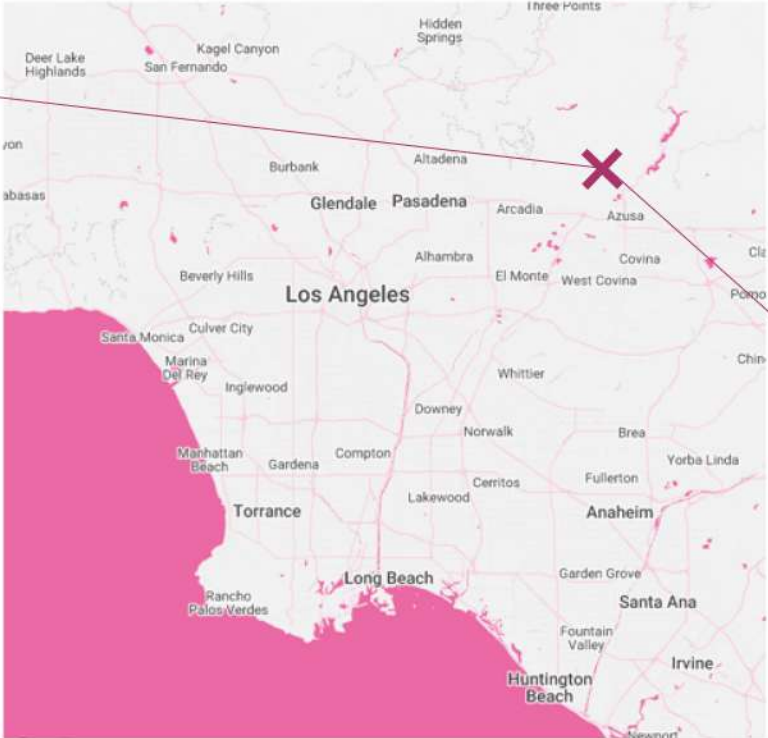
4.7 Scenography

# Site Analysis



San Fernando Valley, California

Traditional electronics manufacturing base, with some companies turning to highly sophisticated fields.

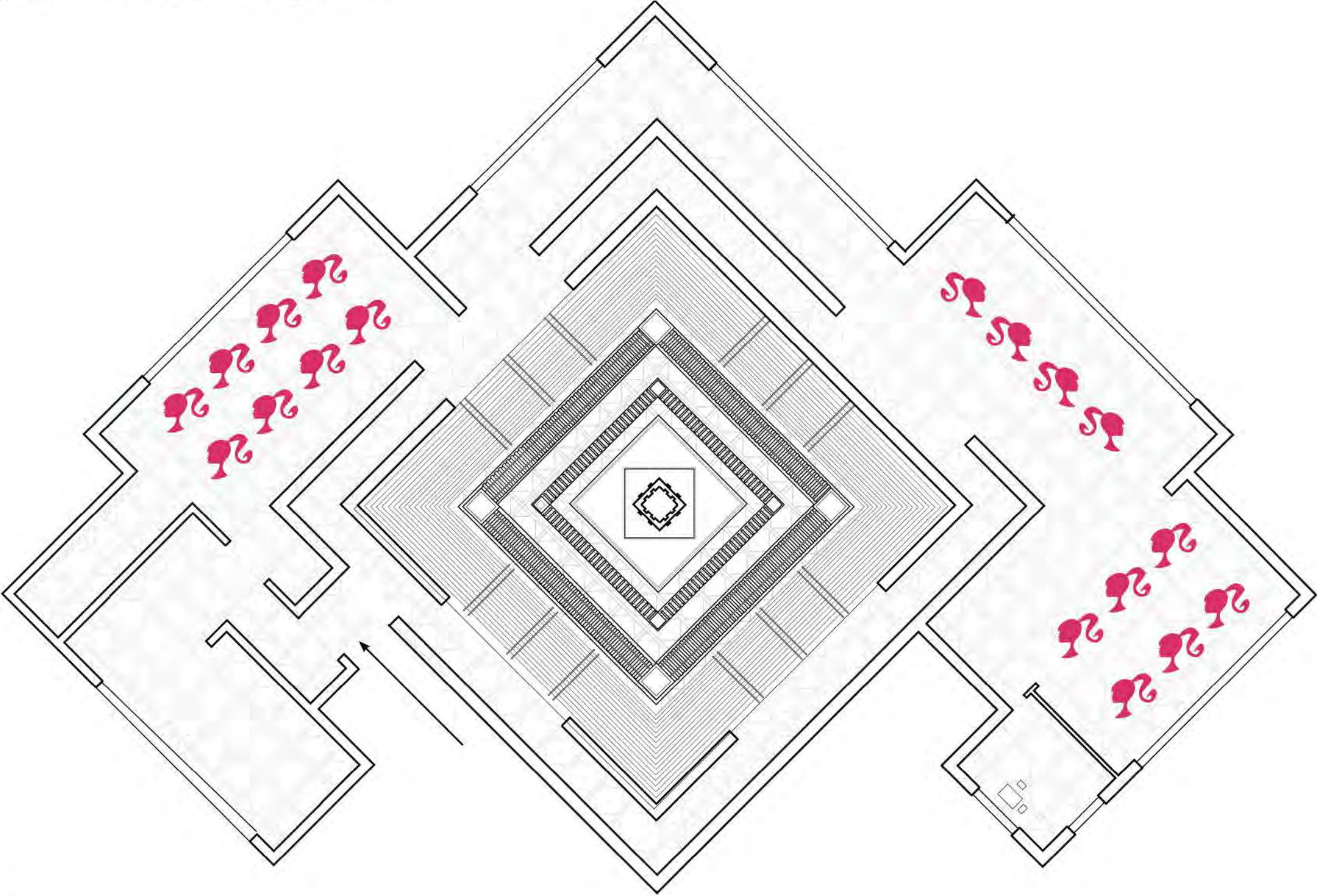


Barbie Automation Factory Location



# Floor Plan Design

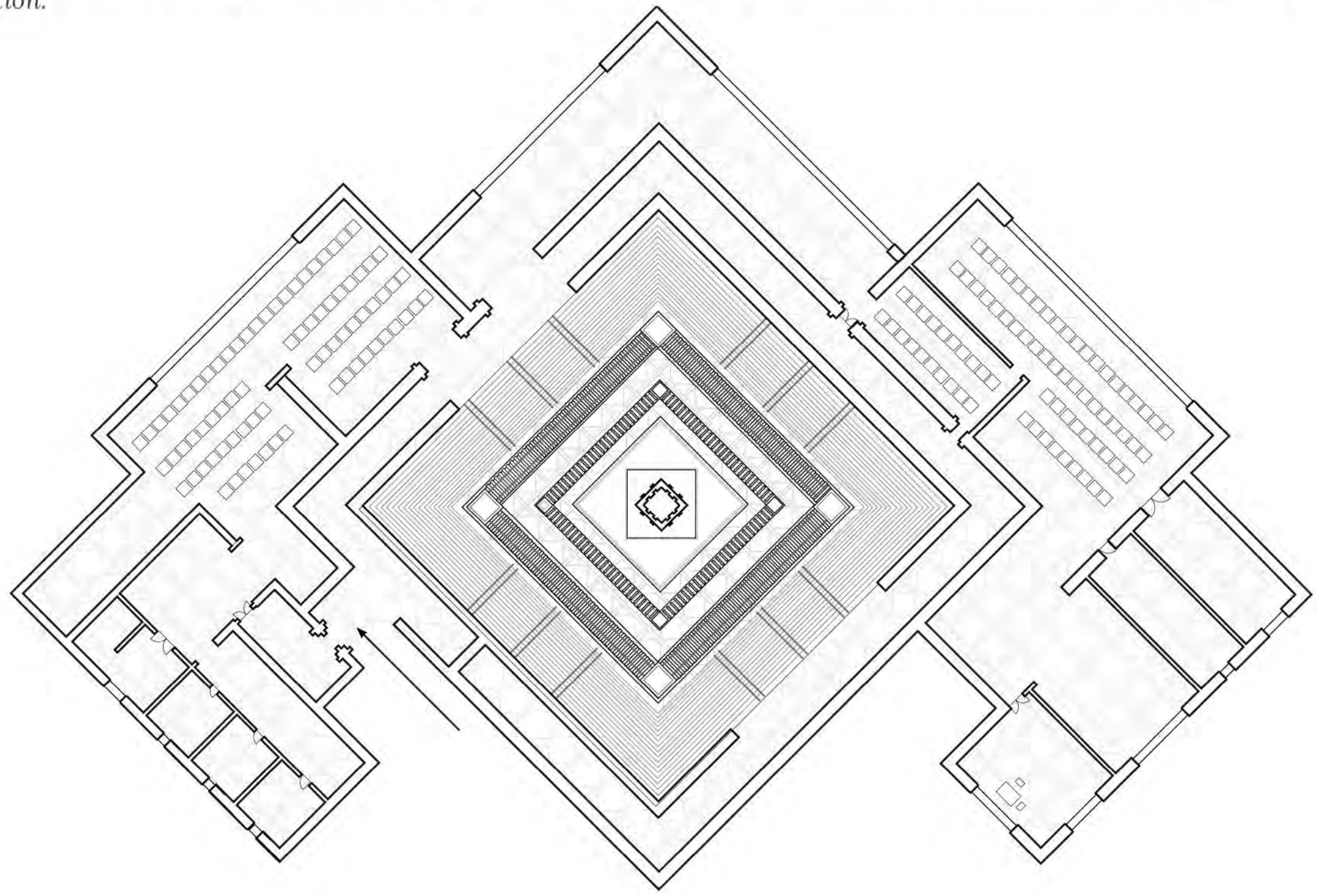
Before 2040, the factory will be fully automated. To meet the needs of large-scale machinery and machine movement, the space design will be more open, and the lighting will be mainly indoor lighting.






-  Conveyer Belt
-  Operation Table
-  Barbie Robot

Floor plan (before 2040)

After 2040, factories will return to the era of manual labor. In order to more clearly distinguish the spatial functions of each part and the functions of the workers, the spatial design will be more intensive, with more closed spaces cut out. The design of indoor lighting and natural lighting must be taken into consideration.



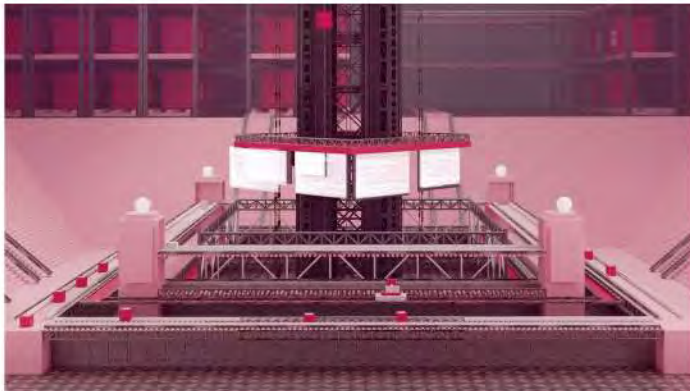
-  Conveyer Belt
-  Operation Table
-  Barbie Robot

Floor plan (before 2040)

# Critical Space

01

Production Center /  
Mechanical production



02

Conference Room/  
Rights Decision



03

Inspection Room/  
Labor monitoring

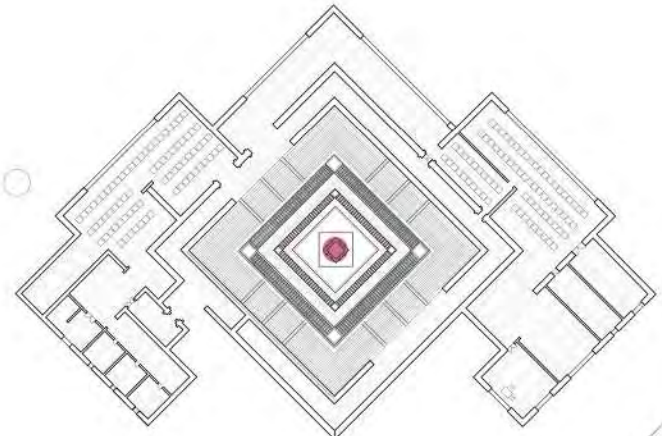
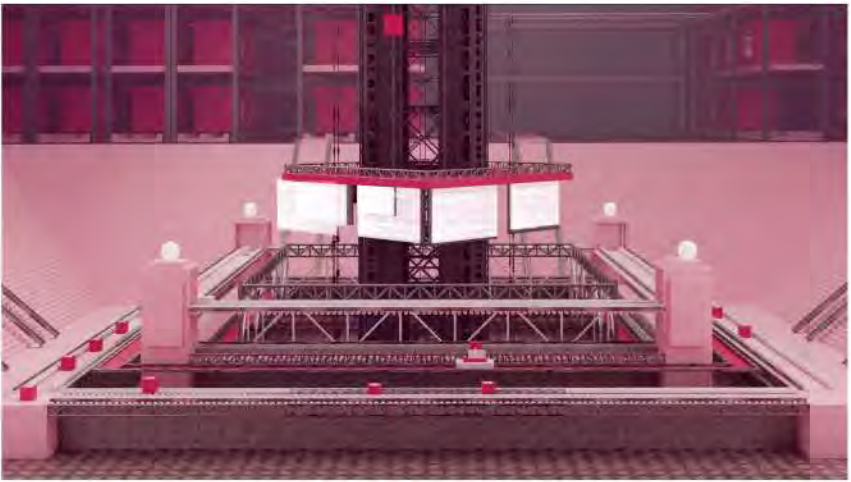
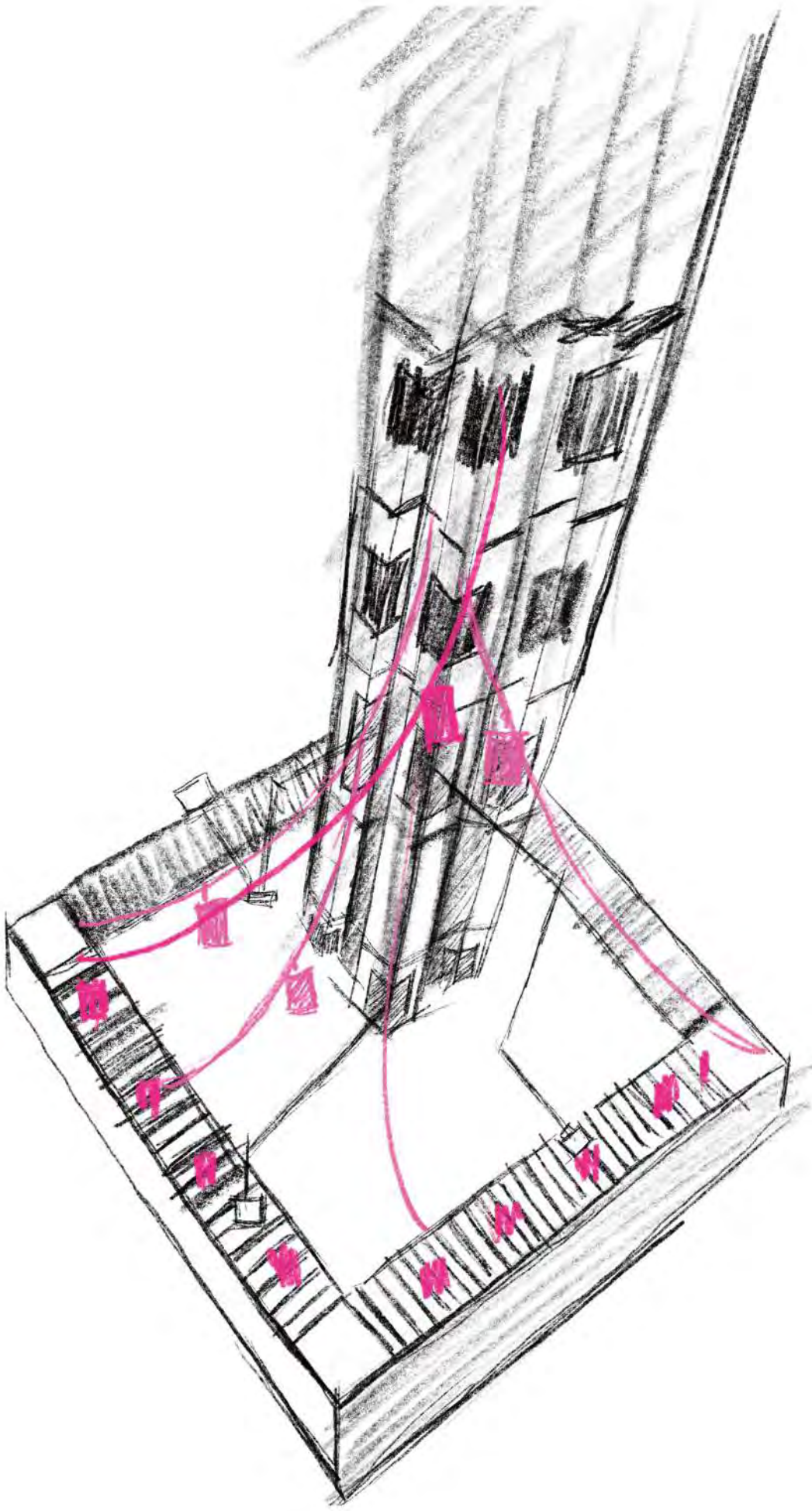
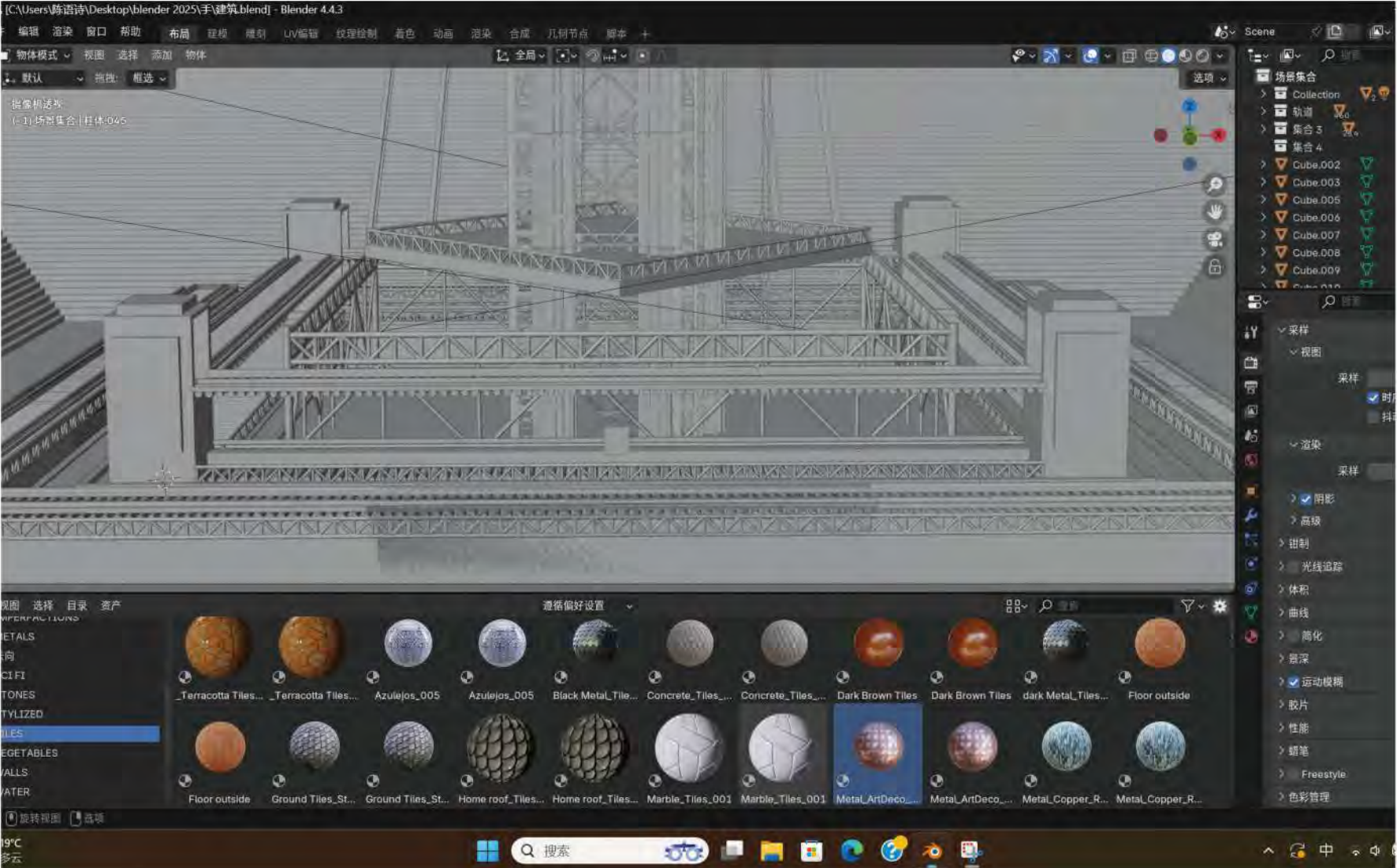


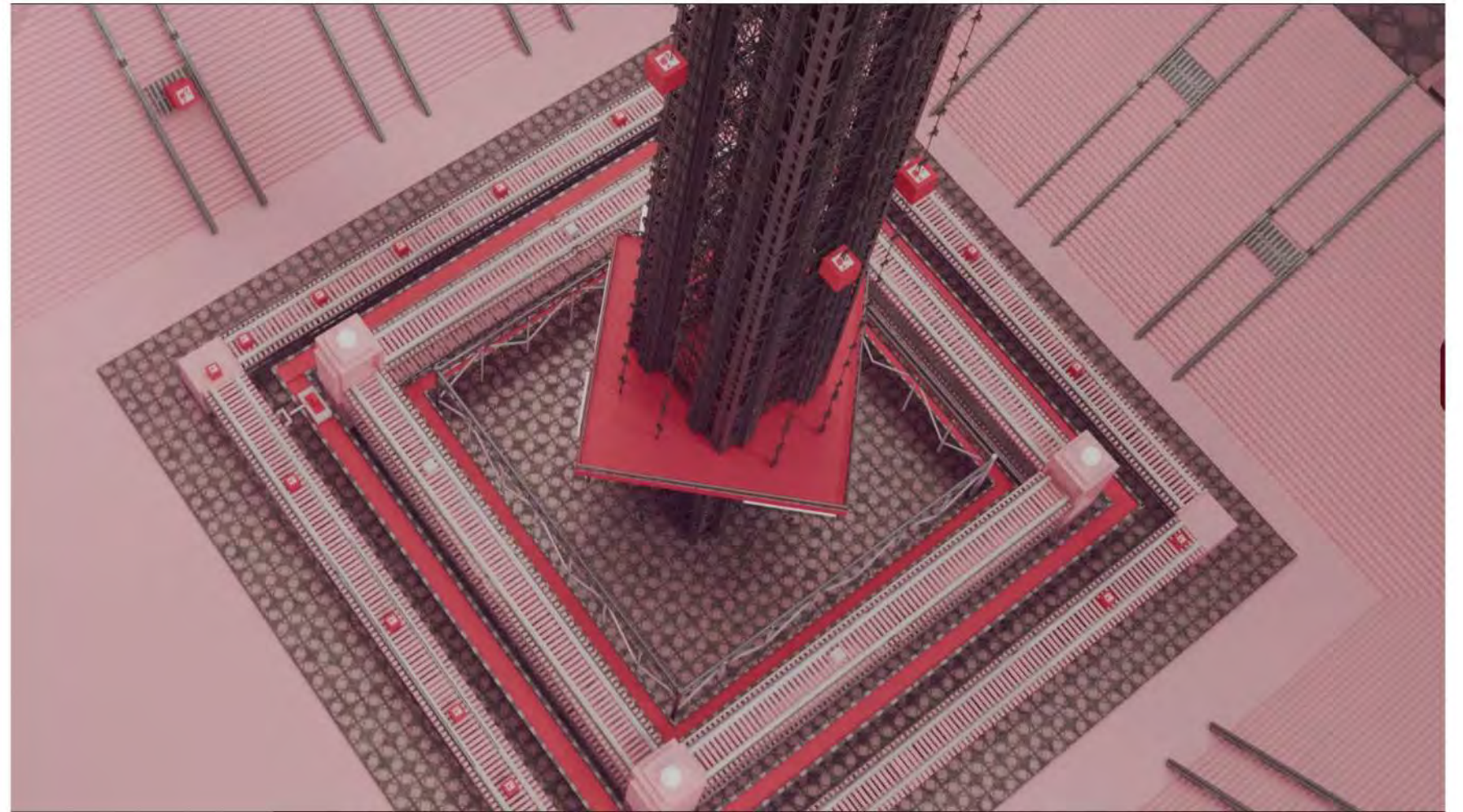
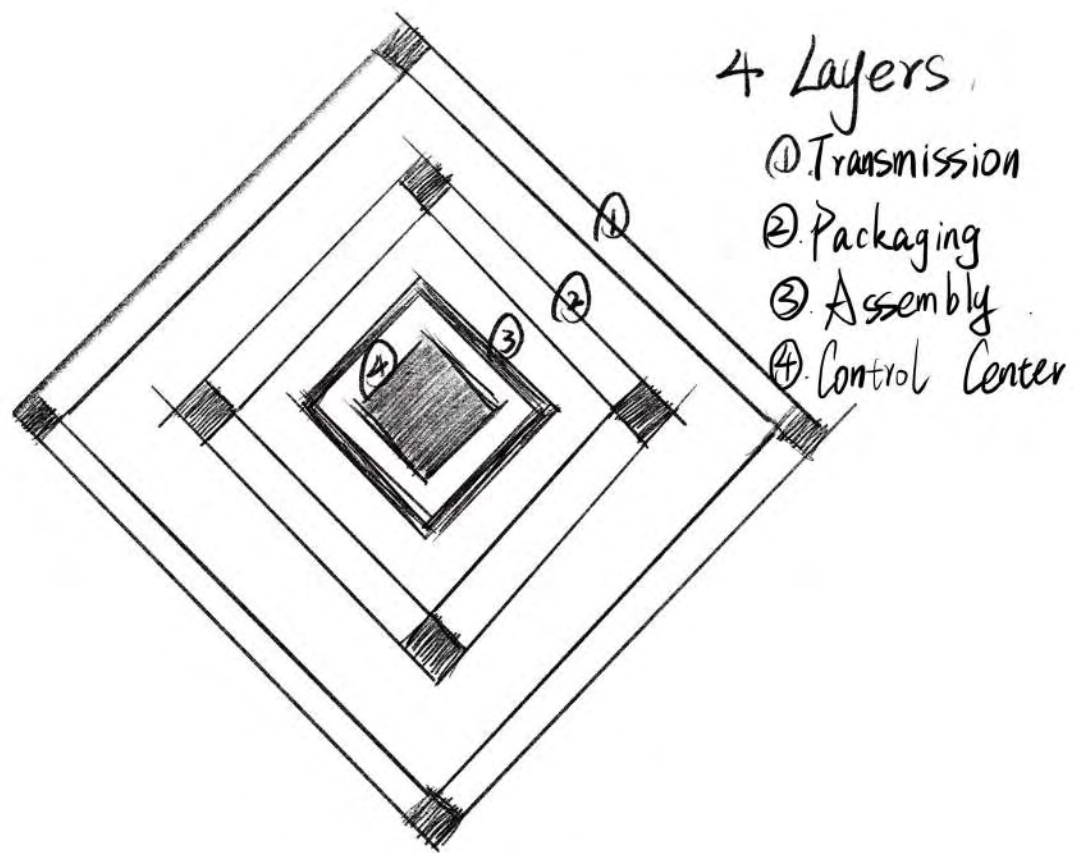
04

Barbie shop/  
Alienated consumption



# Mattel Factory-Production Center





Blender Rendering Screenshot

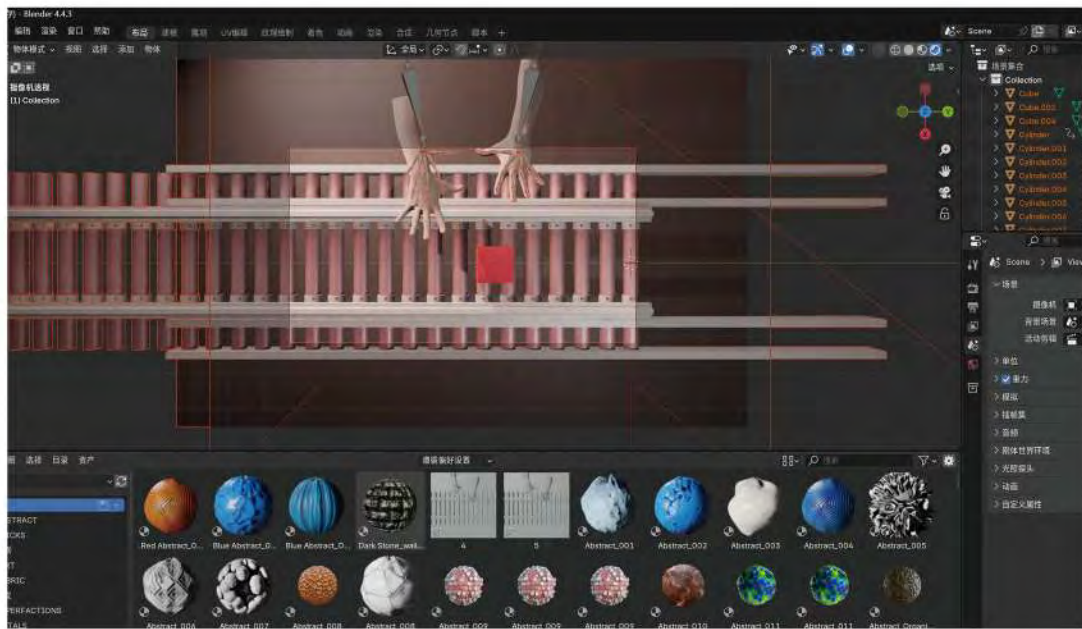
Before 2040



Blender Rendering Screenshot



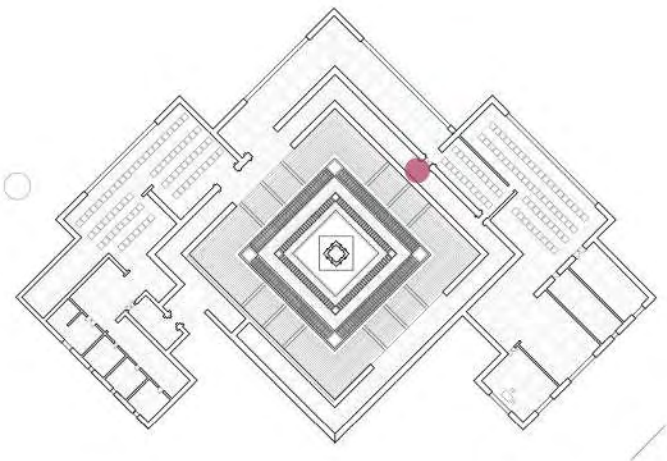
Before 2040



Blender Rendering Screenshot

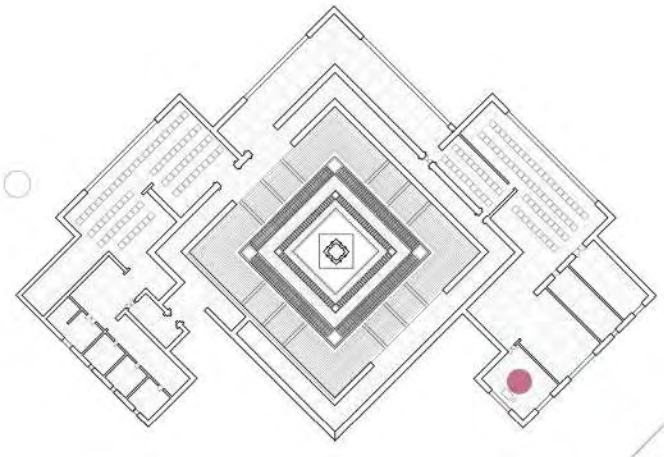


## Mattel Factory-Transition Space



*Transitional spaces in factories play an important role in communicating the transformation of spatial functions and the transition of power relations.*

## Mattel Factory-Conference Room



*During the Mattel factory incident, the high-level office became the place where key decisions were made. It is located in the high-level meeting area of the Mattel factory building, and the environment is as bureaucratic and orderly as ever.*

# Scenography

## Mattel Factory

In 2030, Mattel's new automated factory in California, USA. The factory is Mattel Group's flagship production base built to cope with the surge in global market demand and improve production efficiency. As the most advanced fully automated factory in Mattel's history, it symbolizes a new era of fully unmanned production in the toy manufacturing industry.

The factory adopts a highly mechanized assembly line production model, introduces autonomous scheduling systems, intelligent robotic arms, automatic detection devices and other equipment, and realizes the automation of the entire process.

The orderly waving robotic arms, high-speed conveyor belts, the hum of machines and electronic buzzing echoes throughout the factory, emphasizing the concept of efficiency.



## Mattel Monitoring Room

Located in the central control area of the plant, the monitoring room of Mattel's California fully automated chemical plant is responsible for the core scheduling and supervisory functions of the entire production process. As the 'brain' of this highly automated factory, the monitoring room is covered by a whole curved screen wall.

## Conference room

During the Mattel factory incident, the high-level office became the place where key decisions were made. It is located in the high-level meeting area of the Mattel factory building, and the environment is as bureaucratic and orderly as ever.

The interior of the conference room is cold and serious, with dark gray wood-veneer walls and low-key black carpets. The overall design is simple and restrained, showing authority and rationality. The lighting is deliberately low-key, focusing the light on the table, creating a tense atmosphere.

A digital display screen is embedded in the center of the conference table, projecting real-time production data, public opinion analysis and unemployment statistics of the Mattel factory. The data curve on the screen fluctuates coldly, as if it has become the dominant decision-maker of the entire meeting.

The wall is covered with posters symbolizing the "value of human labor", with slogans such as "craftsmanship is human nature" and "human touch is crucial". Craftsmanship is human instinct, and slogans such as "human touch is important" indicate that the "anti-automation" sentiment in society is growing.



## Shop

In 2040, the Barbie toy shop became one of the symbols of the 'handmade renaissance', when fully automated production was banned and society returned to handmade production.

Located in a bustling commercial district, the shop's windows are brightly lit with pink neon signs spelling out the classic 'Barbie' logo, but unlike Mattel's bright, modern storefront in 2025, today's Barbie is more of a vintage craft store. A metal plaque hanging in front of the shop reads: '100% Handcrafted - Guaranteed Imperfection', as if to convey the idea of '100% Handcrafted - Guaranteed Imperfection', as if 'imperfection' were a unique selling point. Inside the cosy toy shop, there is a sense of absurdity.

