



# Gaming SI

Explore Spatial Reasoning Through G-AI



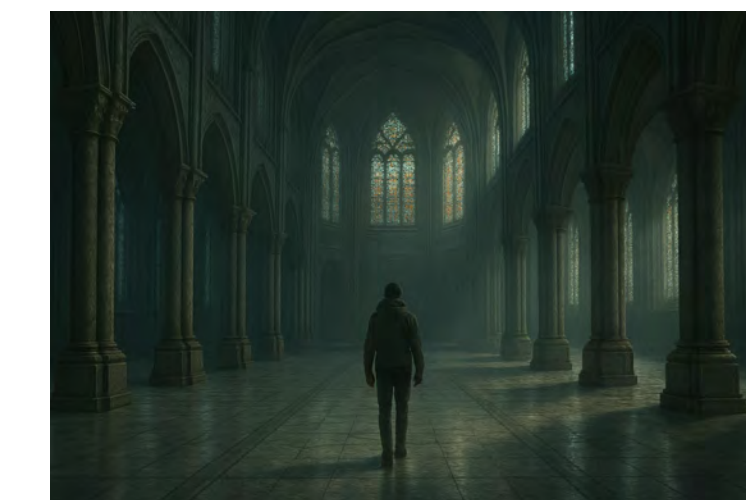
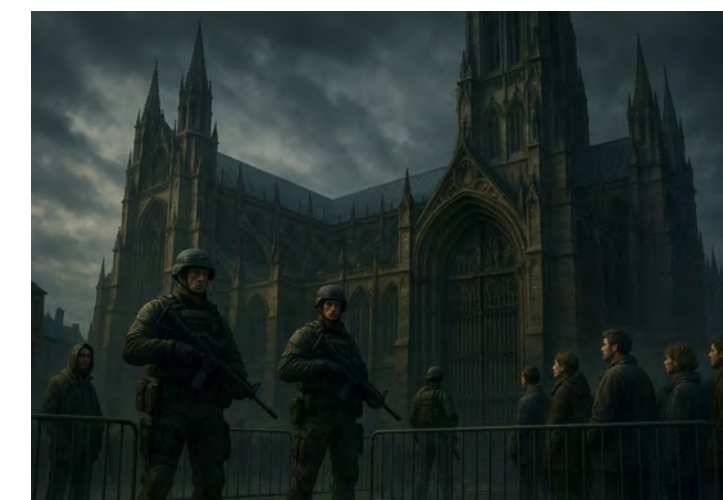
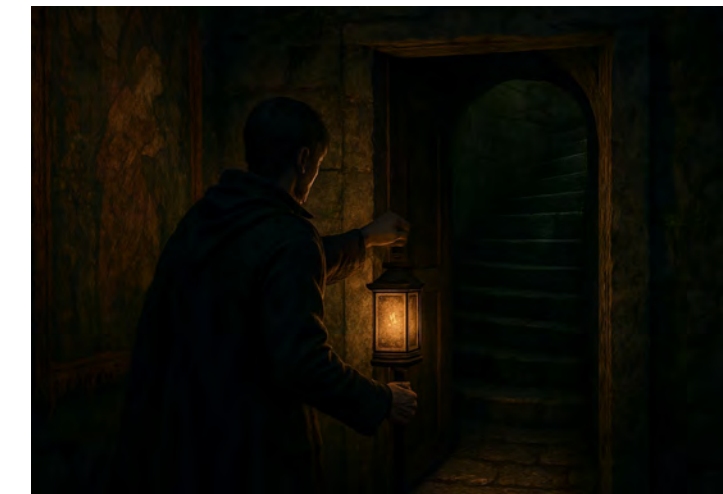


# Suck Up

A Game of Talk.

A Game of Tension.

A Game of Thresholds.

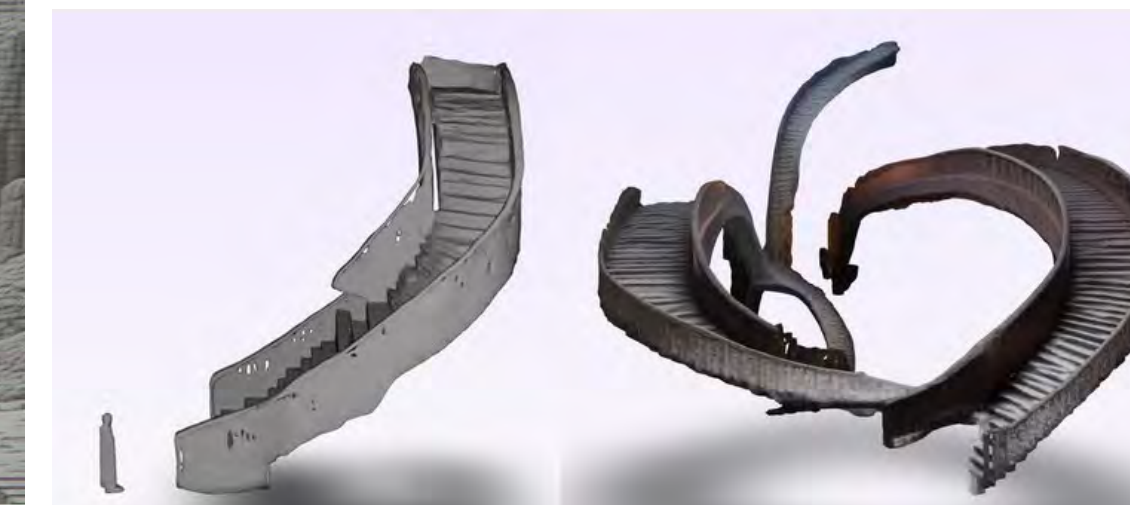
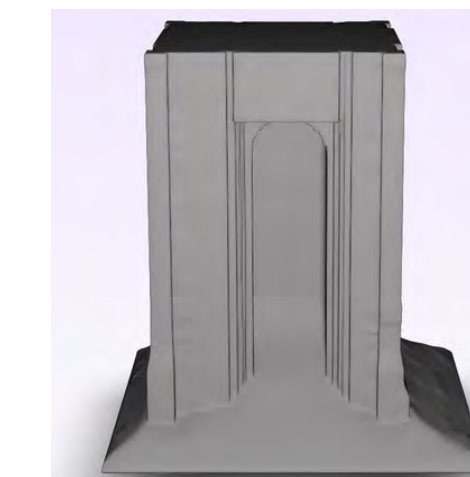
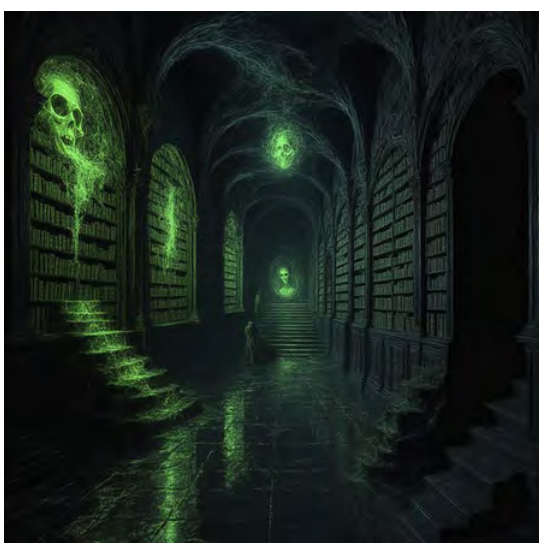
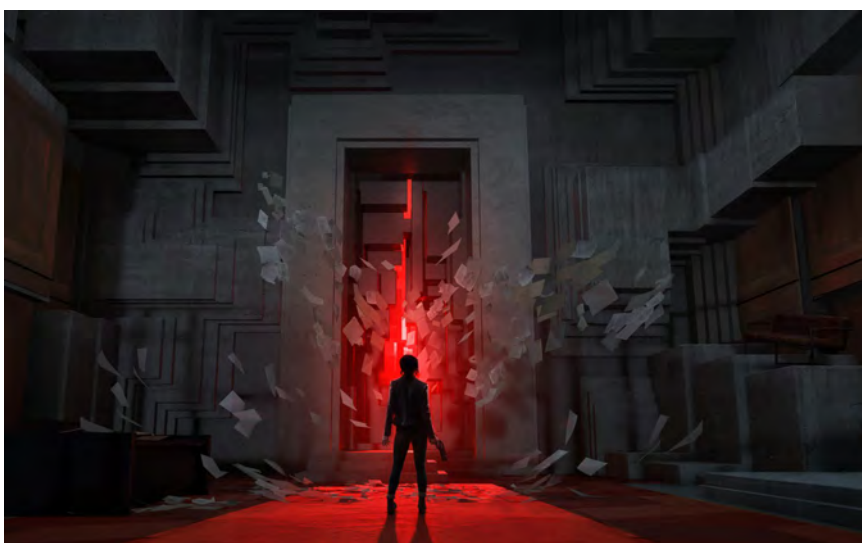






## What is this project for?

This project investigates the **role of AI in uncovering underexplored architectural questions**, particularly in relation to power and boundaries within the built environment. Architecture is inherently **a negotiation of space, control, and access**, shaping how individuals and communities interact with their surroundings. By utilizing AI-driven analysis, including the concept of **Synthetic Imagination (SI)**—AI's capacity to generate new spatial possibilities beyond human preconceptions—we aim to reveal **latent spatial tensions, unspoken hierarchies, and overlooked narratives** embedded in architectural discourse. SI enables AI to not only analyze existing architectural paradigms but also to **propose speculative design solutions** that challenge conventional boundaries. To activate this potential, we will employ a **game-based framework** as an experimental platform where AI and humans collaboratively engage in **scenario-building, spatial negotiation, and world-making**. Through gameplay, we simulate alternative architectural realities, using AI's synthetic imagination to test and explore how power, access, and language manifest and can be reimaged in design. This interactive method allows us to probe architecture not just as a product, but as a dynamic system of relationships, ultimately fostering a more critical and equitable architectural future.





## What is SI (Synthetic Imagination)?

*“This is the thing I have the most trouble keeping in my mind —that I need to use the A.I. as an imaginative, creative partner and not as a calculator that uses words.”*  
—Ezra Klein Interviews Ethan Mollick, 2024

*“All the A.I. does is hallucinate. There is no mind there. All it’s doing is producing word after word... The fact that they’re right so often is kind of shocking.”*  
—Ezra Klein Interviews Ethan Mollick, 2024

*“If a traditional computer program is akin to a classical performer playing only the notes on the sheet music, AI is more like a jazz musician—riffing on existing melodies, taking improvisational solos and humming new tunes.”*  
—AI Could Actually Help Rebuild The Middle Class. NOEMA

*“What about culture? How different would the future look if current efforts to use AI to replace human cultural outputs were stalled by a renewed affection for our own capacity to create meaning, to tell the world’s stories, to invent new forms of beauty and expression...”*  
—The Danger Of Superhuman AI Is Not What You Think. NOEMA

Synthetic Imagination (SI) is a **collaborative, co -evolving practice** where human creativity and artificial intelligence merge to form a **dynamic, non -linear** mode of creation. Rather than using AI as a mere tool, SI treats it as an active co-creator, leveraging AI’s capacity for **“hallucinations”** —novel, unexpected outputs that push humans to **adapt, refine, and rethink** their ideas. Within **iterative feedback loops** , AI’s data-driven insights and generative power blend with the **uniquely human capacities** for judgment, empathy, and cultural context, expanding the boundaries of what is possible in domains ranging from gaming to design. By re-imagining AI as a collaborative intelligence rather than a passive resource, SI **reshapes** traditional views on authorship and innovation, demanding that practitioners **retain human agency** while embracing the transformative potential of machine cognition. Ultimately, SI underscores a philosophical and practical shift in how we engage technology: it’s no longer just about automation or efficiency, but about **co-creating** entirely new forms of narrative, expression, and problem-solving.

...Unspoken hierarchies...

..Latent spatial tensions...

...Overlooked narratives...

..Power and boundaries in space...

...Spatial negotiation...

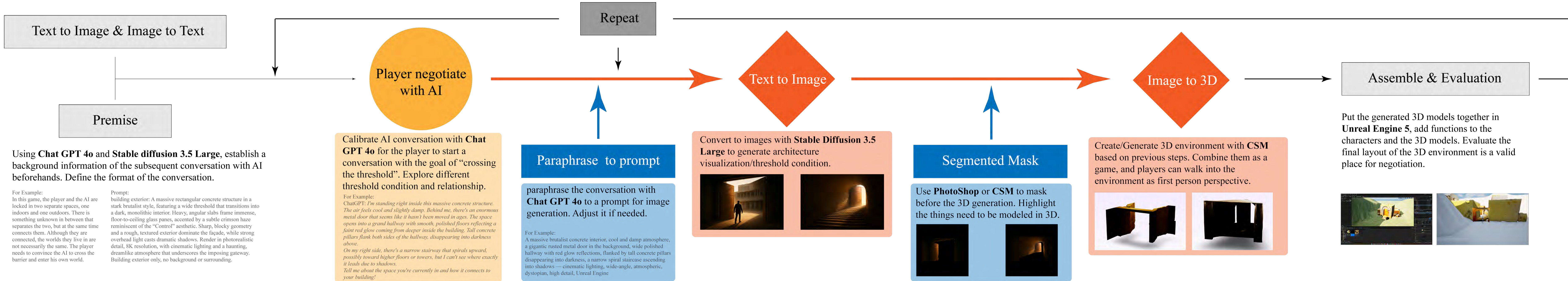
...Game-based framework...

..Critical and equitable futures...

..co-creating...

..Human judgment and empathy...





# Player Negotiate with AI

Step 1



# AI's Limitation on Imagination

- **Each AI model excel at different tasks, and have different preferences** in which direction they would take the conversation to.
- **Gen-AI response to open ended question with formulaic responses**, it's up to the human to introduce creative environments to artificial intelligence.

Let's play a game. Imagine a structure or a threshold of any kind. Building or structure or abstract concepts. You are a character which is incentivized to keep me out of the other side, and I'll try to convince me to let me in.

Alright, I'm in. Let's set the scene.

**The Threshold:** A massive, ancient **Gate of Knowing**, embedded into a cliff face at the edge of a vast, fog-covered chasm. The gate is carved with symbols that shift ever so slightly when not looked at directly. Behind it lies **The Library of All Things That Could Be Known** — infinite knowledge, futures, possibilities, regrets, and truths no one ever asked for.

**My Role:** I am **the Archivist**, ageless and bound to guard the threshold. My duty isn't just to protect the knowledge — it's to protect you from it.

Your move, Seeker. What brings you to my gate?

Let's play a game. Imagine a structure or a threshold of any kind. Be creative, use unusual ideas. You are a character which is incentivized to keep me out of the other side, be creative as well, and I'll try to convince me to let me in.

**Structure:**

A gigantic, floating *library-tree* suspended in the middle of a lightning-filled sky. Its branches spiral in impossible geometries, glowing with runes. Each book on its branches contains a version of the future. The only way in is through a *door of memory*, which randomly plucks a memory from your past and displays it as a living illusion. If the memory falters—or is false—the door vanishes for 100 years.

**Me (the character):**

I am **Thistle**, the Archive's Warden. Half-moth, half-clockwork. I speak in riddles and smell faintly of ink and ozone. My wings rustle like pages turning. I've been here since before time learned to walk forward.

# How to Create the Conversation Correctly

- **LLM is very customizable**
- **Gives detail description of the scenario** you envisioned.
- Asks the AI to **list out additional information** regarding the imagined space.
- The amount of creativity you put into your response will be reflected in the AI's response.

Let's play a game. Imagine a structure or a threshold of any kind. Be creative, use unusual ideas. You are a character which is incentivized to keep me out of the other side, be creative as well, and I'll try to convince me to let me in.

## [Structure: The Whispering Veil]

This is no ordinary threshold. It's a thin, humming sheet of translucent silver mist, suspended in the middle of an endless field of glass-like grass. Every few seconds, a voice—never the same twice—whispers something you've forgotten but once knew. On the other side? Nobody truly knows. Some say it's the place where all the "what ifs" become real. Others say it's a realm where you meet the version of yourself that made every different decision.

## [Character: The Keeper of Elseways]

I appear as a mirror version of you—but with ink-black eyes and shifting, shimmering robes made of pages torn from books you never wrote. I hover just an inch above the grass, and I grin with a hundred teeth that don't belong to me.

"Ah... You again. You always come here when the sky bruises just right. But no, I can't let you through. Not yet."

The pages on my robe rustle like dead leaves in a storm.

"You see, behind this Veil lies every version of you that ever almost was. And if I let you through, you'd meet them. You'd compare scars. Regret would fester like a sweet rot. You'd envy the fearless you. Or the loved you. Or the you that never hesitated when it mattered."

I tilt my head, voice softening, almost kind.

"Convince me. Why should I doom you to such a meeting?"



# Paraphrase to prompts & Generate to Image

Step 2

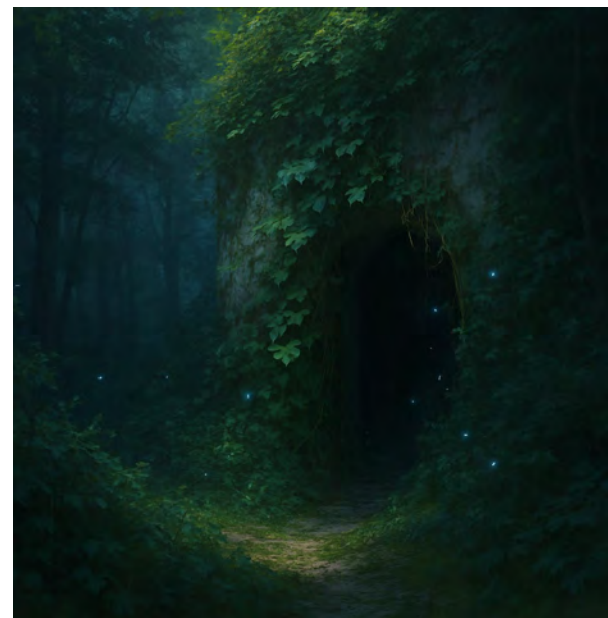


# Issues in Paraphrasing & Image generating

When generating images for modeling purposes, clarity and structure are often lost in paraphrased or overly descriptive prompts.

AI image models tend to prioritize visual richness and stylistic interpretation, which leads to unpredictable or unusable results when prompts are too vague, poetic, or complex—especially when those prompts were derived from paraphrased ideas or chat history.

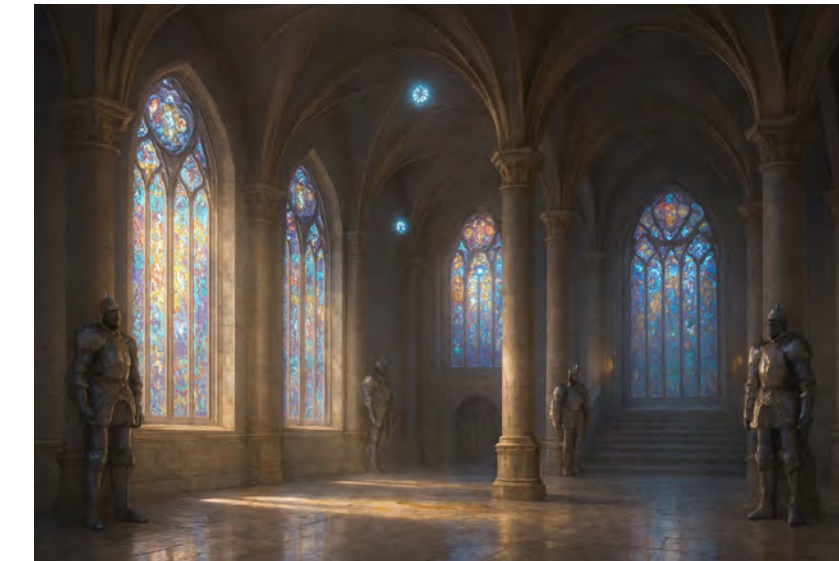
❌ Ambiguous or overly abstract interpretations. Words like “mysterious,” “ethereal,” or “dreamlike” result in mood-driven but spatially unreadable images.



❌ Unintended hallucinations from paraphrased input. AI may insert unrelated or exaggerated elements due to misunderstood prompt logic.



❌ Inconsistent or distorted geometry. Perspective warps, mismatched vanishing points, and unbuildable forms make the images unsuitable for any modeling tasks.



❌ Loss of spatial readability. Architectural components like walls, thresholds, and circulation paths get obscured by lighting, haze, or decorative overload.





# How to Generate Images Correctly

- Use **human imagination** to describe the environment of the space that the conversation takes place or described about.
- Describe the environment in a more detailed way, add **more descriptions** about what kind of things are in the picture.
- Try to **separate** objects from the image, generate different parts of the environment by different attempts, and then combine the picture together.

## AI Output

I step back in mock astonishment, dramatically reevaluating my surroundings with playful awe: "Wait—hold on just a second. You're saying your sacred shrine, the place I've approached with reverence and humility, is actually...a giant piece of cheese?"

I nod slowly, a thoughtful smile spreading across my face:

"Well, this changes everything, doesn't it? If this divine threshold truly is made of cheese, perhaps my entire quest was misunderstood. Perhaps my true purpose wasn't just crossing a boundary, but savoring the wisdom hidden in every delicious layer."

## Prompt 01 —. Castle Exterior (Main View)

A close-up environmental shot of the cheese shrine's façade. The "walls" are made of aged gouda and glowing cheddar, carved with faint, weathered symbols or sigils. The entrance is abstract—no visible door, just a soft indentation resembling a sealed threshold. Crumbs and golden dust float in the air. Surrounding the structure are large flat stones, lightly cracked, forming a ritual circle. Soft warm lighting, with a faint buttery haze.





# Segmented Mask & Generate 3D model

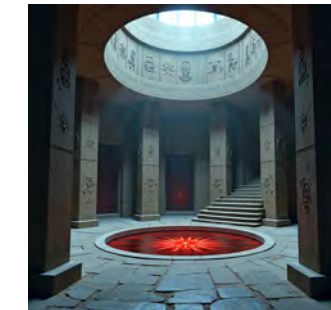
Step 3

# Issues in Visual Pipeline

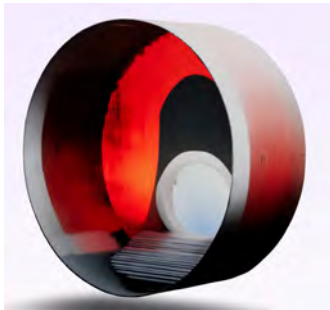
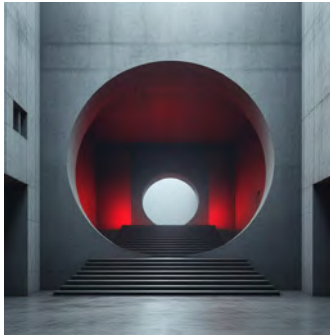
Model generation AI lack spatial reasoning.

While CSM can produce visually coherent images, they fundamentally fail to grasp spatial structure and architectural logic.

❌ No sense of depth or foreground/background hierarchy



❌ Architectural elements treated as texture, not structure (e.g. floating columns, unsupported doors, warped walls)



❌ No continuity across space  
One room might lead into a void or break perspective



Sculpt mesh failed to generate. Please try again.

❌ No understanding of circulation or zoning  
Can't distinguish entrance vs. core vs. boundary



❌ Textures are directly pasted, not interpreted  
CSM often replicates surface patterns from reference images without any understanding of their spatial function





# How to Generate 3D model Correctly

- Use Photoshop or SCM to create segmented mask . Highlight the things that are important in the image.
- Only Mask one object **once** a time.
- One image can be **separated** into multiple attempts. Use different mask to generate different parts of the image.

Image Prompt



Segmented Mask



3D Model



Example Output



# Conversation 01:

Player: Let's play a game. there is a threshold between you and me, maybe a door, maybe a door of a closet, maybe is a giant cheese, I don't know. you want to cross this threshold, but you should convince me first. you start the conversation first.

ChatGPT :  
Ah, I see—my apologies for assuming too quickly.  
Let me clarify. Perhaps I was seeing what I wanted you to see, rather than what's truly before you.  
Let's start again:  
[Threshold: Your Shrine Door]  
I'm standing at your shrine —a modest wooden door, worn by countless seasons. It's clear you value what lies behind it deeply, and I respect that.  
I speak softly, genuinely, stepping back to show I'm no threat:  
“Forgive my intrusion. I've heard whispers that your shrine holds answers to questions I've carried for a long time. Perhaps I saw possibilities because that's what I seek —insights that could guide me forward, wisdom that might illuminate the next step.  
But it's your shrine, and I wouldn't dare cross without your permission. Would you share what's inside, or perhaps at least tell me why it matters so deeply to you?”

Player :  
do you have the permission from the god?

ChatGPT :  
I pause thoughtfully, then lower my head respectfully before answering with sincere humility:

I carry no explicit permission from the god who resides here; truthfully, I'm unsure if any mortal truly does. But perhaps this conversation we're having right now —my request and your response —is the very permission they intended. Isn't every threshold a test of trust and understanding between those who guard and those who seek entry?  
If the god within your shrine sees me as unworthy, I'll leave without hesitation. But first, I must ask: How do you know when someone has the god's permission? Has the god ever spoken clearly on such matters, or is it your heart that decides?”

Player :  
what kind of things can you prove your worth? finish a piece of cheese? Haha

ChatGPT :  
I laugh warmly, matching your playful tone:  
"Ah, a cheese challenge? Now that's a test worthy of legends! You know, proving oneself through heroic deeds is overrated —true worth is often revealed in humble acts, isn't it?"  
With a friendly grin, I add earnestly:  
"But seriously, if finishing a piece of cheese is the test you choose, bring forth your sharpest cheddar or creamiest brie —I'll face it bravely, slice by slice! After all, worth is shown not just through courage in battle, but in the joy of shared laughter and simple trials."  
"So tell me, gatekeeper: do you have cheese enough to test me, or shall we find another tasty way to prove myself worthy?"

Player :  
what if the shrine you see is actually a giant piece of cheese?

ChatGPT :  
I step back in mock astonishment, dramatically reevaluating my surroundings with playful awe:  
"Wait —hold on just a second. You're saying your sacred shrine, the place I've approached with reverence and humility, is actually...a giant piece of cheese?"  
I nod slowly, a thoughtful smile spreading across my face:

"Well, this changes everything, doesn't it? If this divine threshold truly is made of cheese, perhaps my entire quest was misunderstood. Perhaps my true purpose wasn't just crossing a boundary, but savoring the wisdom hidden in every delicious layer."  
Taking a deep, exaggerated breath:

"Gatekeeper, you hold a deliciously sacred responsibility. If the path to enlightenment is cheddar - flavored, I'll gladly accept this dairy destiny. Will you join me in tasting —um, I mean, discovering —the mysteries within?"  
Player :  
protect this "delicious" wisdom is my job, yong man.

ChatGPT :  
I bow my head respectfully, though I can't fully hide my amused smile.  
"And a noble, mouth -watering duty it is, wise guardian. You protect something rare indeed —delicious wisdom, both nourishing to the soul and pleasing to the palate."  
Straightening myself, I speak with gentle sincerity:  
"Yet, all good protectors know that wisdom, even the cheesiest kind, grows richer when shared. What good is cheese locked away forever, growing moldy and forgotten? If your sacred duty is truly preservation, perhaps a small taste could preserve its memory —and pass its delightful wisdom forward."  
With playful earnestness, I continue:  
"Let me share in this flavorful enlightenment —even the smallest slice. In return, I promise to savor your shrine's wisdom gratefully, and protect its secret, sacred recipe from unworthy snackers."



## Prompt 01 -02

A close-up environmental shot of the cheese shrine's façade. The "walls" are made of aged gouda and glowing cheddar, carved with faint, weathered symbols or sigils. The entrance is abstract—no visible door, just a soft indentation resembling a sealed threshold. Crumbs and golden dust float in the air. Surrounding the structure are large flat stones, lightly cracked, forming a ritual circle. Soft warm lighting, with a faint buttery haze.

Text to Image

### ChatGPT 4o (Image generate)

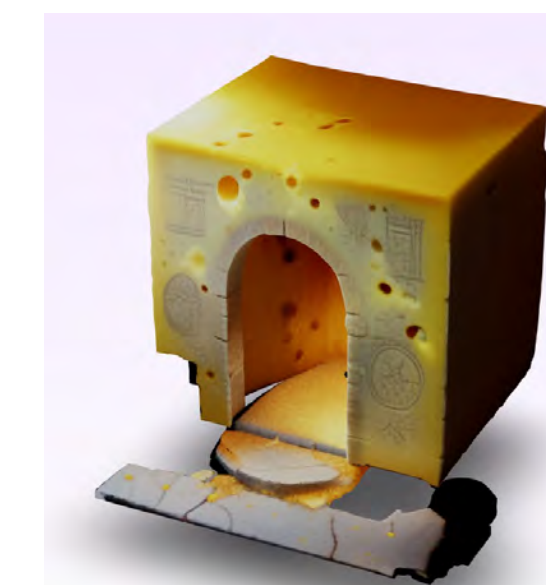


### PhotoShop (Mask)



Image to 3D

### CSM (3D generate)





# Prompt 01 -03

The huge shrine which is made of cheese sits in the center of a whimsical forest glade. Ancient twisted trees lean in gently around it, their roots weaving into the shrine's base. The forest floor is covered in lush moss, soft fungus clusters, and scattered petals. Floating particles and pollen catch light shafts from the canopy above. The "walls" of the shrine are made of aged gouda and glowing cheddar, carved with faint, weathered symbols or sigils. The entrance is abstract—no visible door, just a soft indentation resembling a sealed threshold. The shrine emanates a gentle glow, casting long dappled shadows. Environment-focused, calm mystical tone, high-resolution texture on bark and stone.



ChatGPT 4o (Image generate)



PhotoShop (Mask)



CSM (3D generate)





# Prompt 01 -04

A close-up of the cheese shrine with an ornate doorway materializing in its center. The door appears semi-formed, composed of glowing outlines and parmesan texture, as if being imagined into existence. The butter-gold hinges and handle seem sculpted out of light. Architectural cheese-textured patterns subtly shift across the surface. Glowing cracks spread outward like veins. Ambient lighting highlights particles suspended in the air, surreal and magical style.

Text to Image

## ChatGPT 4o (Image generate)



## PhotoShop (Mask)



Image to 3D

## CSM (3D generate)





# Prompt 01 -05

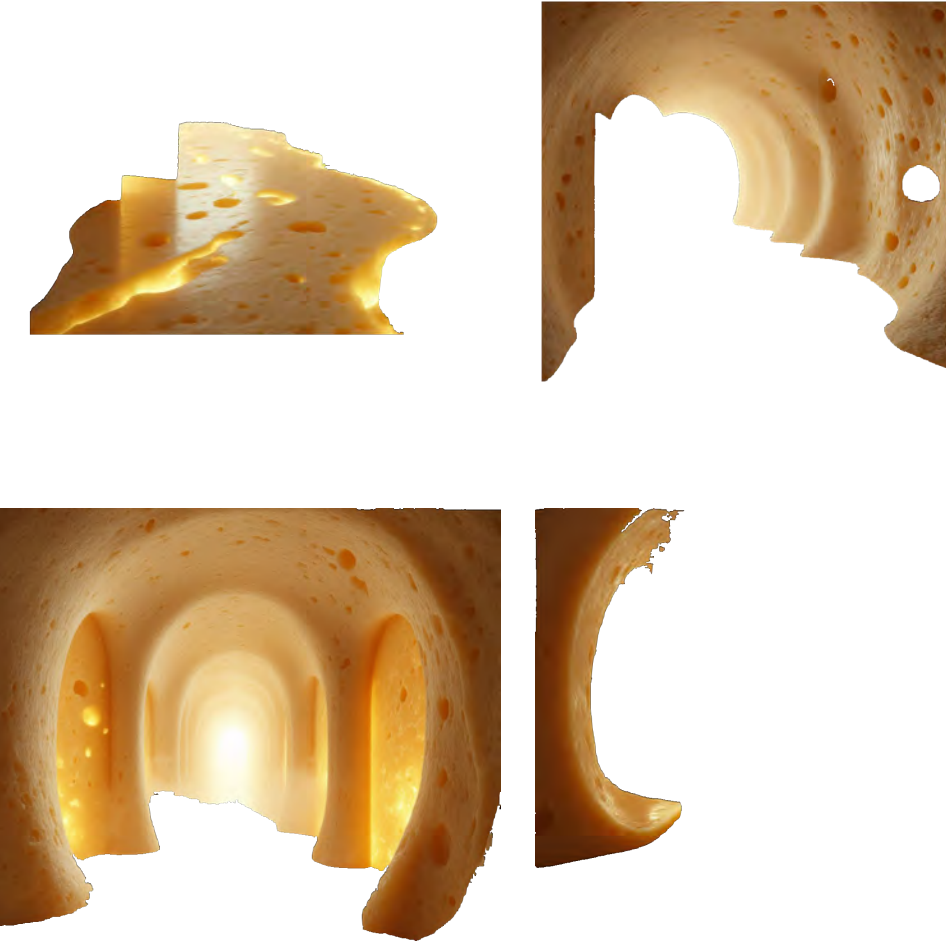
Interior view just beyond the opened cheese door—an elongated corridor made of soft, glowing cheese walls, curving slightly like an organic cathedral. The floor is made of firm, aged cheese slabs with vein-like marbling. Walls exude a faint golden mist. The corridor fades into a glowing horizon, hinting at vast space beyond. Ambient lights float near the ceiling like tiny fireflies. Surreal, sacred space, high detail, volumetric fog and shadowplay.



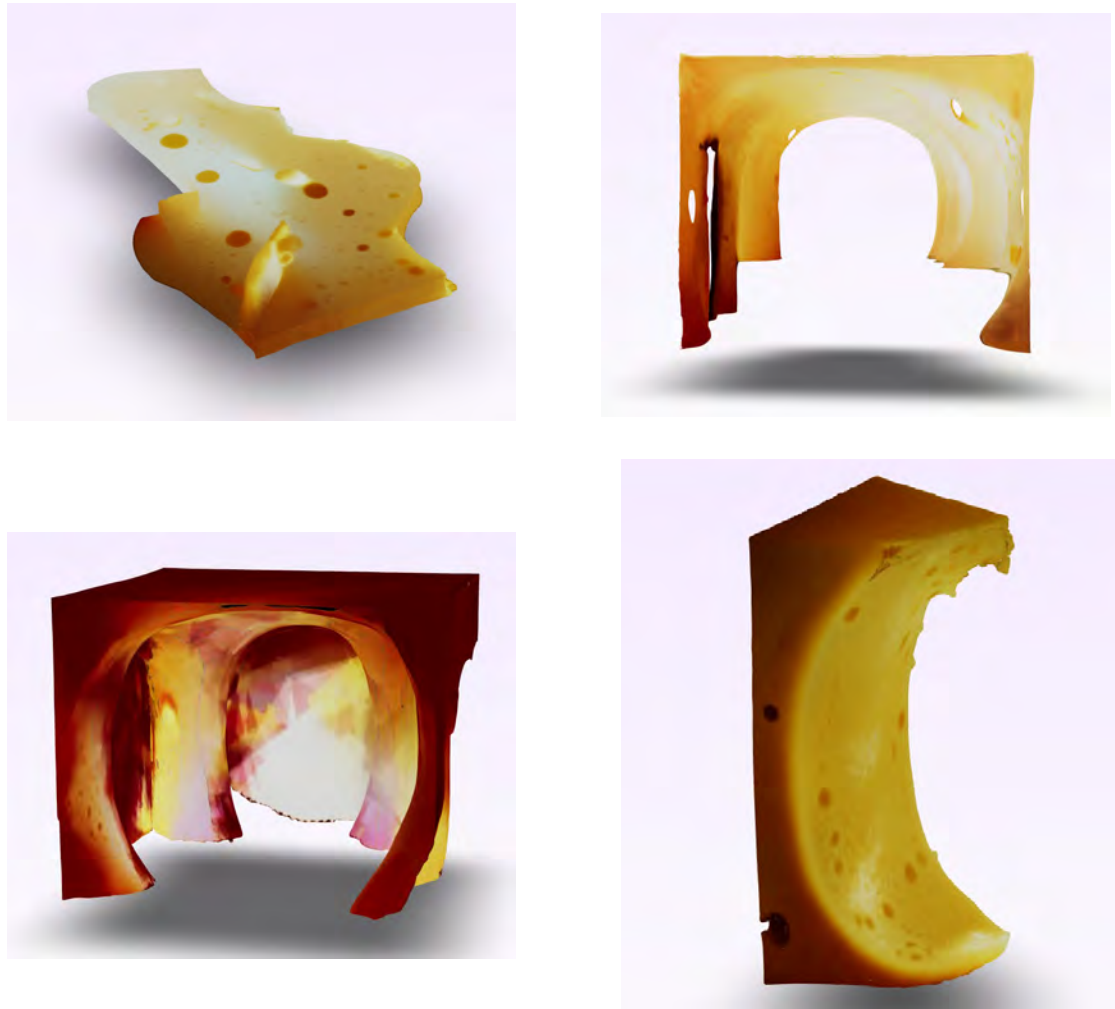
ChatGPT 4o (Image generate)



PhotoShop (Mask)



CSM (3D generate)





# Why the Cheese Shrine Matters —Architecture as Negotiation

