

PORTFOLIO

JU YIGE

Engine & Rendering
Environment & World Building
Spatial Design & Logic
Art Fundamentals

01

REAL-TIME PAINTERLY RENDERING

2026, Unity URP · 场景取色笔触与油画风格化





展开面板



展开面板



展开面板



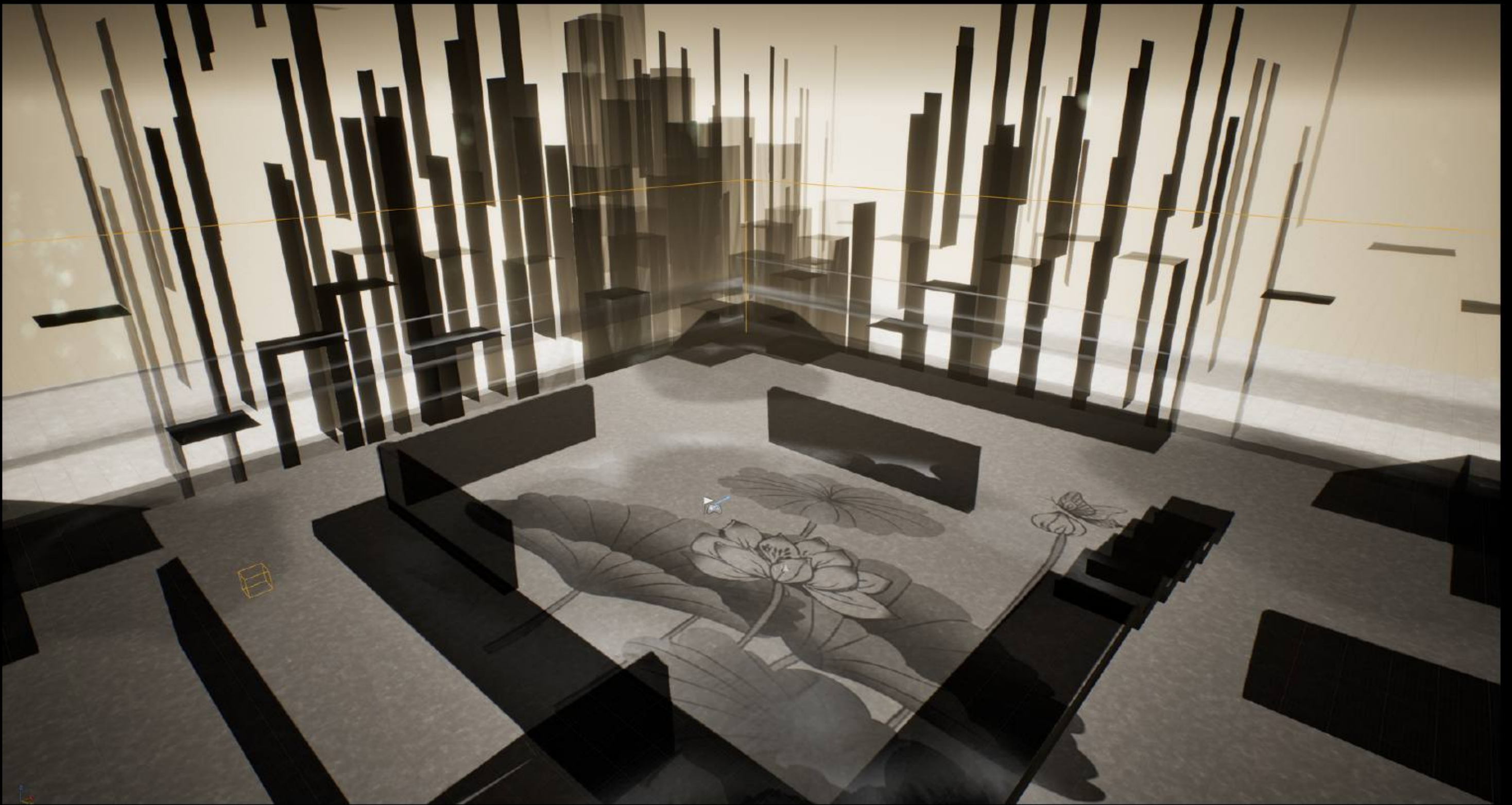
展开面板



02

STYLIZED CHARACTER TOON RENDERING

2026, Unity URP / HLSL · 角色材质、分层光照与轮廓描边

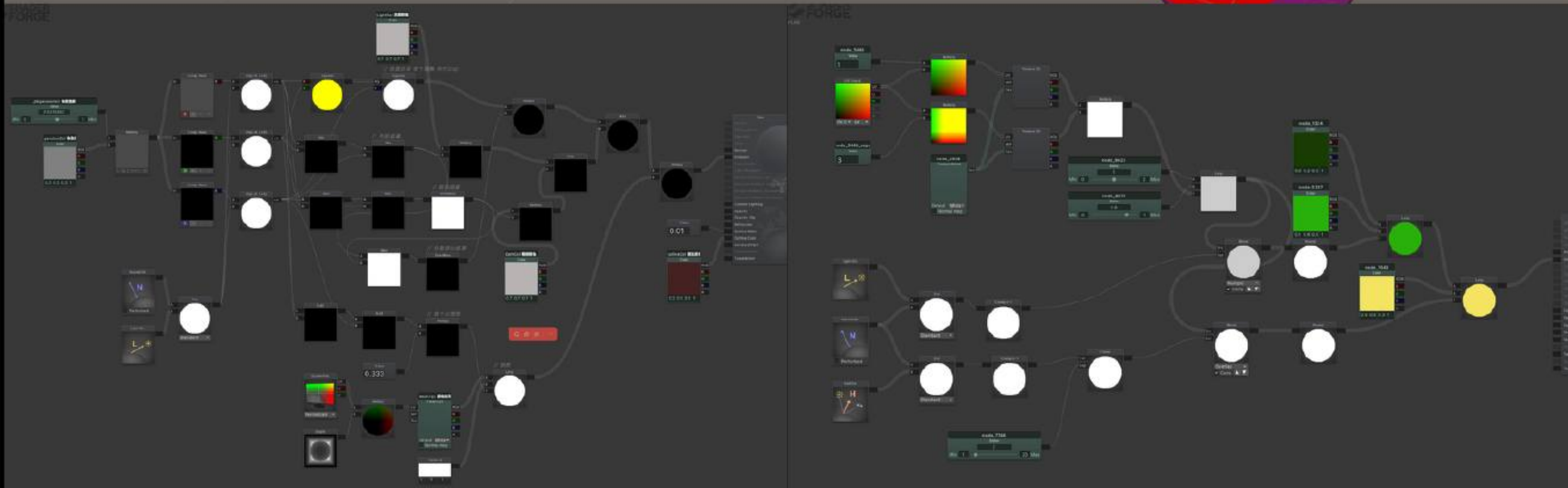
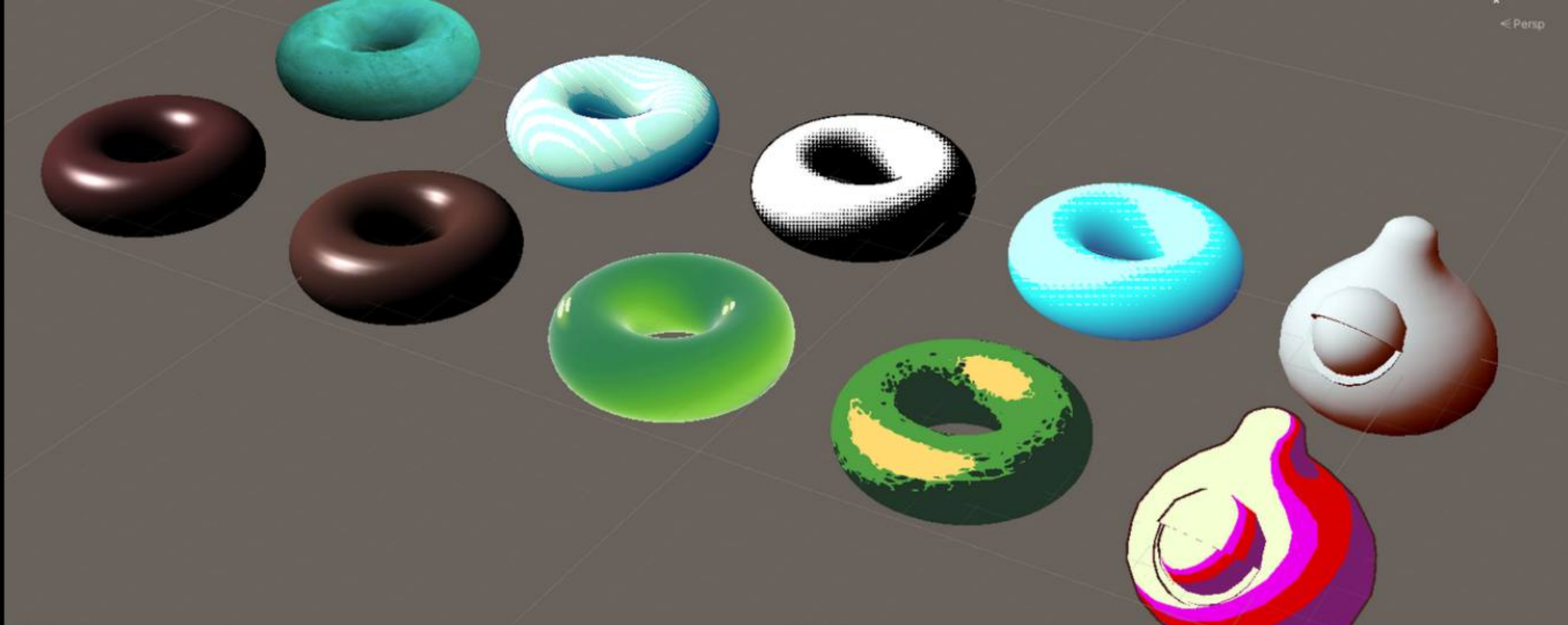


03 UE5 INK WASH STYLE RENDERING

2025, The meat pigeon action game "Confine Me Within the Lines"



04 UNITY3D SHADER PRACTICE 2025



05 CONSTRUCTION OF CG TRAINING SCENARIOS

2025, Environment & World Building







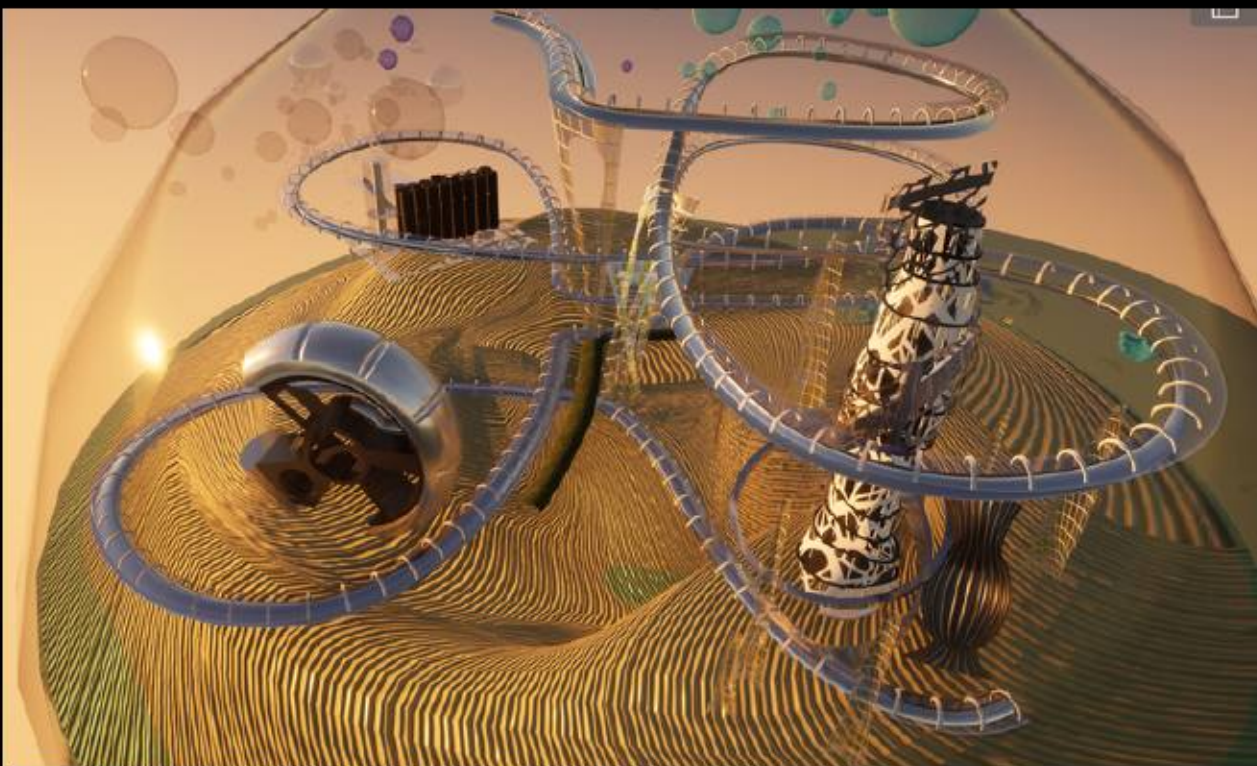
06 DEVELOPMENT OF "VIRTUAL REALITY MINDFULNESS TRAINING SYSTEM"

2024-2025, VR immersive scene

Performance Optimization: Due to the hardware limitations of Pico4, the Baked Lighting and LOD strategies were adopted to maximize the vegetation density while maintaining a frame rate of 72 FPS.





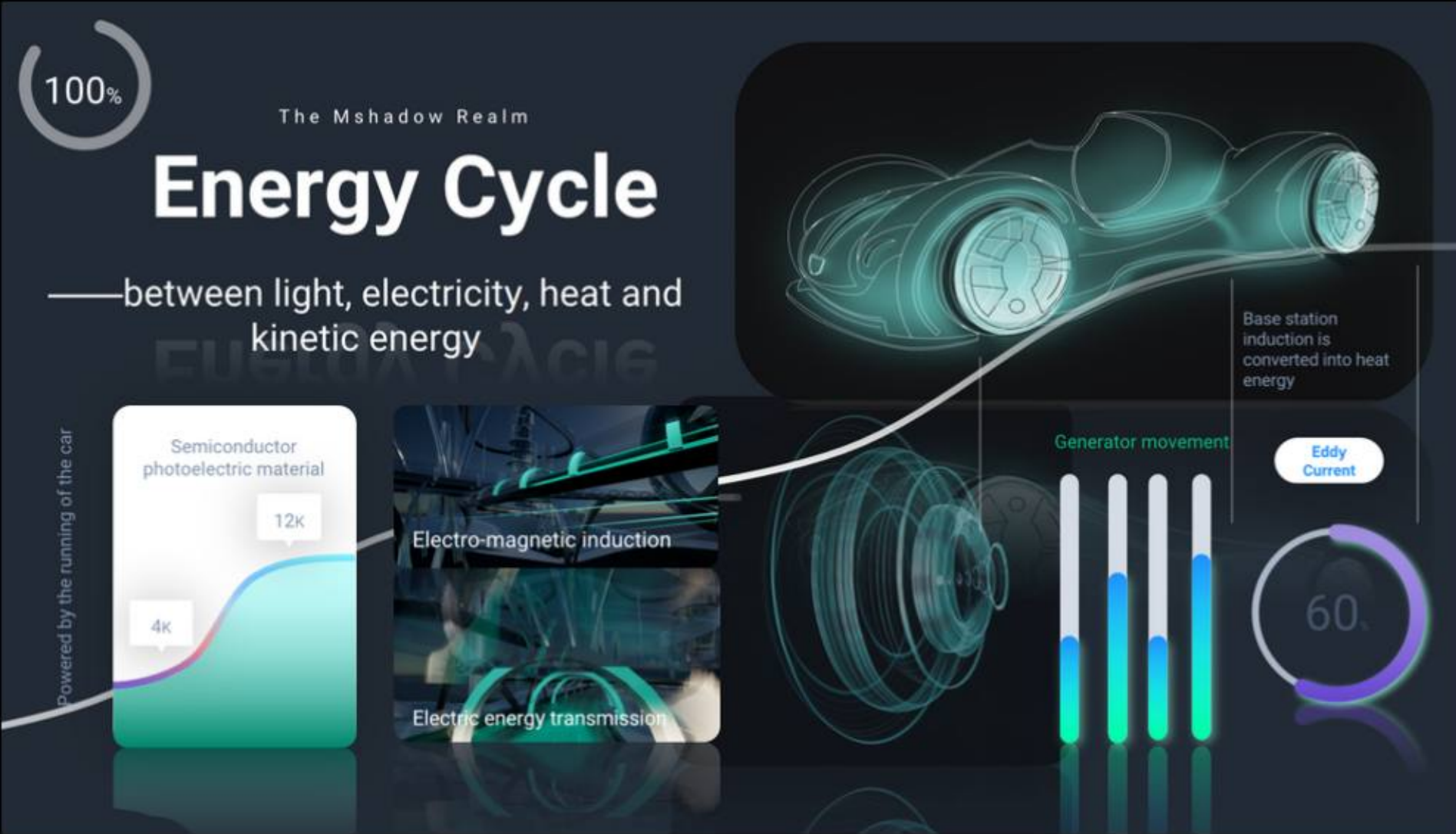


07 DISNEY IMAGINEERING CHALLENGE COMPETITION

2023, Environment & World Building



(Group Work)



绮光界

the Vlight Real

1

Water Shuttle



跳楼机

来自绮光界的如同跳楼机的娱乐设施。在世界中分别有两个水上梭，高至20米，分布在南北两侧，均可极速上升下降，速度为10米每秒。顶部半球空间是休息室，是维纳斯的住处。她通常每天早上出去玩的流程一，就是坐水上梭来到海底。

An entertainment from the Vlight Realm that resembles a drop tower. There are two water shuttles in the realm, each as high as 20 meters, distributed on both north and south sides, both of which can rise and fall at a speed of 10 m/s. The top hemisphere space is the lounge, which is Venus' residence. Her usual process of going out to have fun every morning is to take a water shuttle to the deep sea.

3



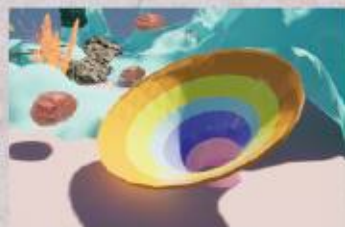
Dutch National

音乐剧院

来自绮光界的音乐剧院。维纳斯是剧院的常驻歌唱家，这是她最喜欢的地方之一。

游客体验口号：欢迎来到鲸鱼剧院，游客可在剧院里观看属于绮光界与维纳斯的音乐剧演出。

The music theater of the Vlight Real. Venus is a singer of the theatre, which is one of her favorite places. Experience Slogan: Welcome to the Whale Theatre, where visitors can watch musicals from Vlight Real with Venus.



Color Storm

七彩风暴

来自绮光界海底最深处的风暴系统。是维纳斯经常喜欢去冲浪的地方，但每个自转周期的第88天运作最为猛烈。

游客体验：游客可选择坐在水晶球滚筒上进入风暴，小心！你会在风暴中失重，并且晕头转向。

A storm system from the deepest bottom of the Vlight Realm. Is a place where Venus often likes to surf, but the 88 days of each rotation cycle.

Tourist experience: Visitors can choose to sit on the crystal ball roller into the storm, be careful! You will lose weight in a storm and dizzy.

2

4



Bubble Garden

泡泡园

来自绮光界的水上娱乐场所。西南方为入口，东北方为出口。从入口进入后请前往一层攀岩区等待，轮到你的时候请前往泡泡升降区，进入水晶泡泡球准备上升至二层。这个从水中升起的水晶泡泡球，会自动升降至上层泡泡秋千处连接，开始游戏。游玩结束后，泡泡会停

A water entertainment venue from the Vlight Realm. The southwest is the entrance, and the northeast is the exit. After entering from the entrance, please go to the climbing area on the first floor and wait. When it's your turn, please go to the bubble lifting area and enter the crystal bubble to rise to the second floor. This crystal bubble that rises from the water will automatically rise and fall to connect to the bubble swing above, starting the game. After playing, the bubble will stop above the curve slide. Bang! The crystal bubble will burst, then you will slide down the slide back to the first floor. The game is over, please leave in order from the exit. Whale Opera

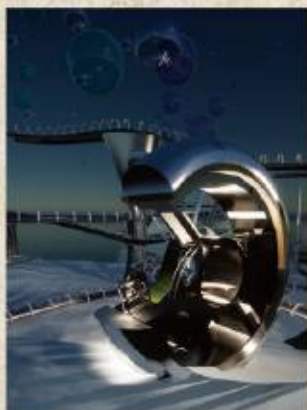
VICE
versa

the Mshadow Realm

车轮修理屋

来自墨影界的建筑。该建筑共有6个房间，顶层赛车测试站。里面有各种测试仪器，爱车狂魔墨丘莉在这给赛车做各种测试和保养。建筑中心的通常是赛车在这里进行修理与改装。底层隔层房是维纳斯暂住的地方。

The building has 6 rooms, and the top floor is a racing test station. Mercury always have test on her car here. The room in the center is a repair room, where racing car is modified. There is a room on the ground floor where Venus to stay temporarily.



Wheel FIX

Mercury's Tower



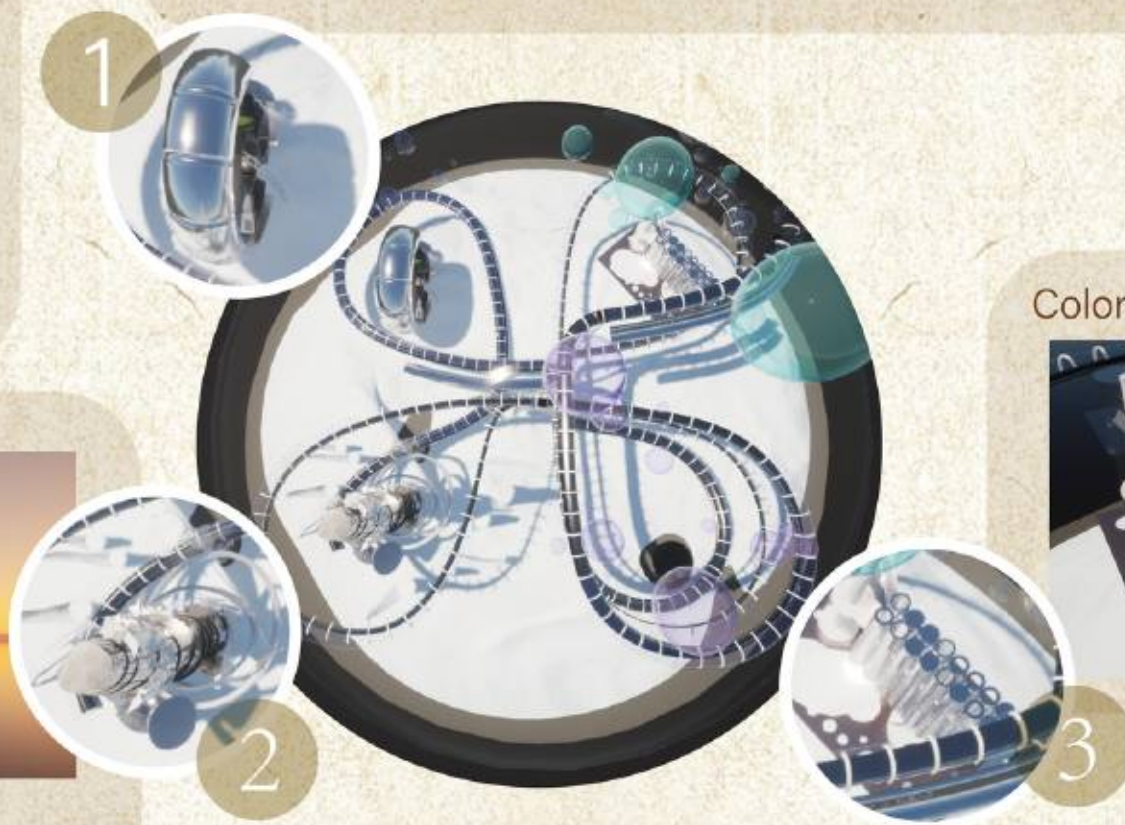
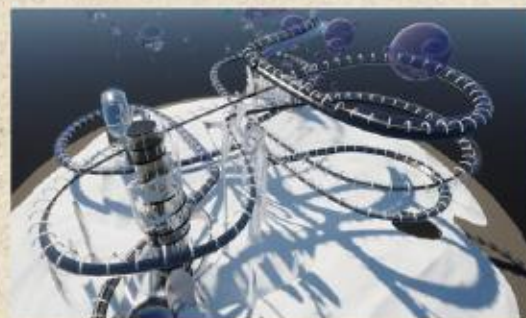
黑塔

来自墨影界墨丘莉的住所。共10层楼，圆柱体螺旋上升。建筑东侧有一个车库，连接着黑白赛车道。整个建筑空荡，只有墨丘莉一人居住此地，体现的是墨丘莉看似强硬固执，但其实有孤独的内心。

The residence of Mercury in the Mshadow Realm. 10 floors height. There is a garage on the east side of the building, connected to the black-white race tunnel. only Mercury is living here, reflecting she's seemingly tough and stubborn nature, but in fact, she has a lonely heart.

来自墨影界的赛车隧道总长达4000千米，分为通风隧道和封闭隧道两部分。靠近塔楼的地方是通风的赛车隧道。通常墨丘莉心情不好会去这边透气。

A racing tunnel from the Mshadow Realm. The tunnel has a total length of 4000 kilometers and is divided into two parts: a ventilated tunnel and a closed tunnel. The area near the tower is a ventilated racing tunnel. Usually, when Mercury is in a bad mood, she goes here to ease.



Color Incineration Plant



“我的领地怎么又长出这些彩色的垃圾？”墨丘莉恼怒地拿着彩色百合要去色彩焚烧站将其烧毁。

这是来自墨影界有16个圆柱烟囱和1个大圆柱焚烧机器组成的建筑物。墨影界每月88日会长出一朵彩色百合。这天，墨丘莉就得来这百合烧毁。但每次焚烧时，烟囱却会冒出会爆破的彩色泡泡。

"How come these trash comes in my realm again?" Mercury angrily took the lily and went to the Color Incineration Plant to burn them down. This is a building from the Mshadow Realm consisting of 16 cylindrical chimneys and 1 large incineration machine. On the 88th day of each month, a colorful lily grows in Mshasow realm. On that day, she has to burn the lily. But each operation of the plant, the chimney will burst with colorful bubbles that will boom.

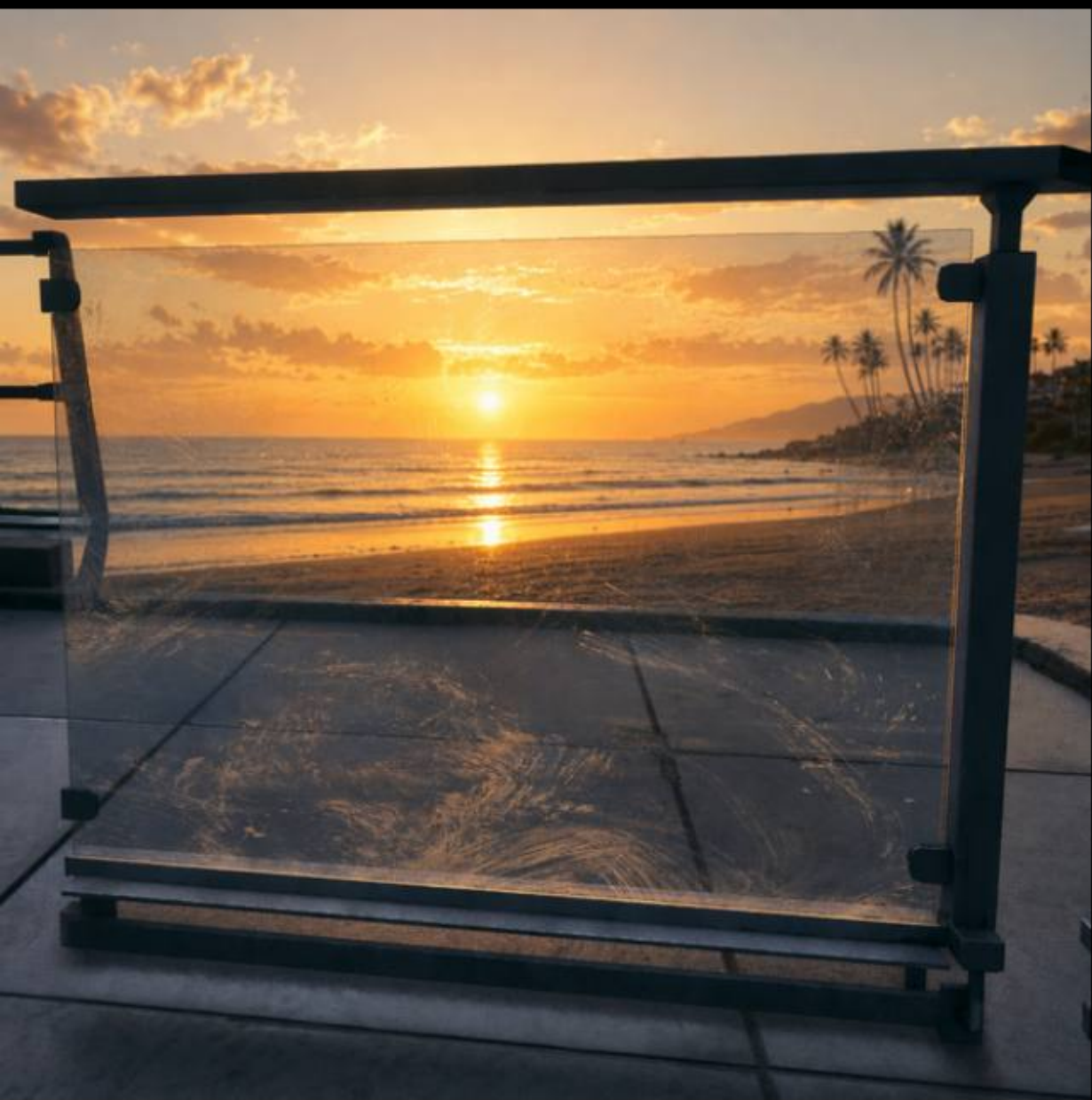
黑白赛车联通墨影界所有建筑物，共在四个方位发散开。设计以无限循环为元素，俯瞰的标志如两个缠绕的数字8连接在一起(88天)，也赋予这样的寓意，轮回与无限。墨丘莉的性情保守，墨守成规，不愿意去突破自己的空间，从而使得她的赛车路线，每日也是不停轮回周而复始。

The Black-white Race (roller coaster) connects all buildings in the Mshadow Realm and diverges in four directions. The design is based on infinite loops, the overlooks symbols like two intertwined numbers 8 connected together (Day 88), symbolizing reincarnation and infinity. Mercury's temperament is conservative, she follows the old routines and unwilling to break through her own space, which makes her racing route the same every day, constantly repeating the shape.

08

04 PBR GLASS SURFACE IMPERFECTIONS

2025, PBR玻璃材质·表面脏迹与细节表现





09

SELECTED ARCHITECTURAL DESIGNS

Spatial Design & Logic



LAYER UPON LAYER

Campus Activity Center Design

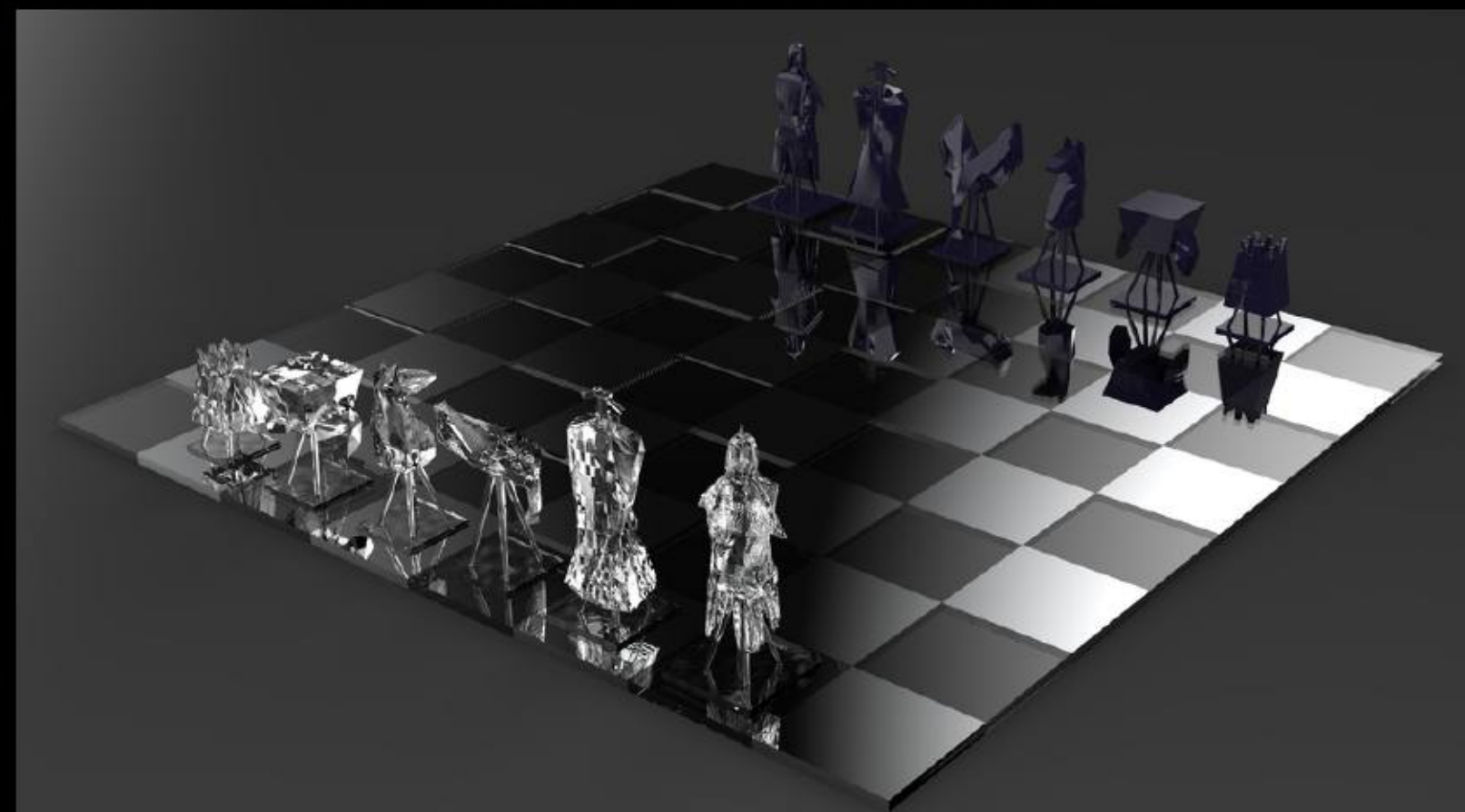




HABITAT IN THE ROCKS

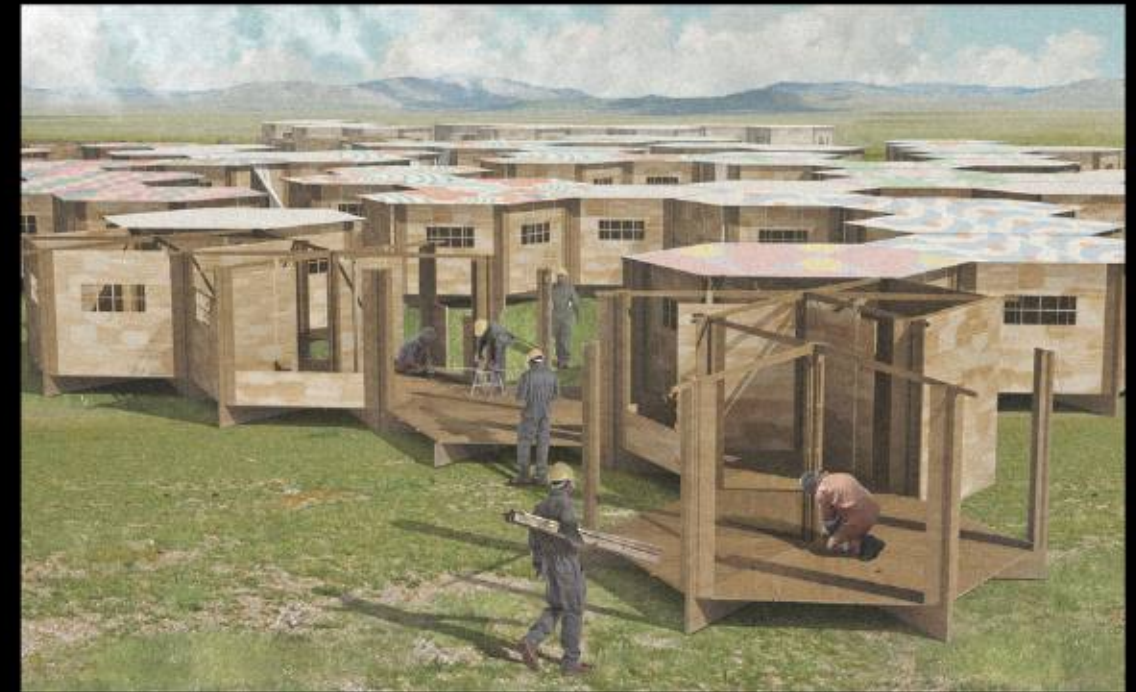
villa design





BOX GALAXY

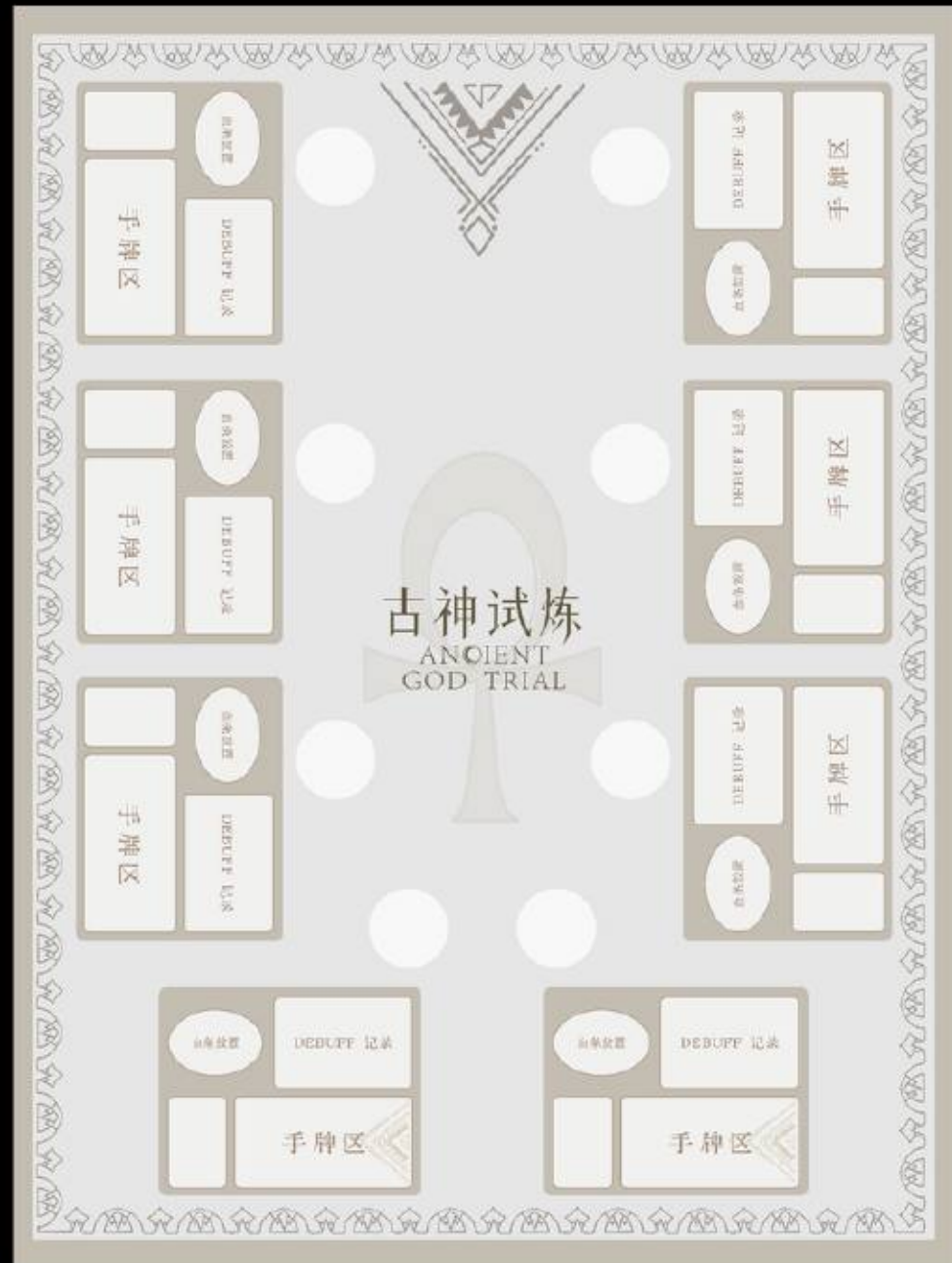
Wooden structure modularization for housing design



(Group Work)



(Group Work)





Skill Cards

CASUAL STRATEGY GAME "YESORNO"

2024, UI art implementation





THANK YOU

JU YIGE

Please contact me.

EMAIL

orangejoker@sjtu.edu.cn