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Resonance

*A site-specific immersive installation
for the vanishing Yellow River Stone Forest*

Sirui Chen, 2025

Massey University

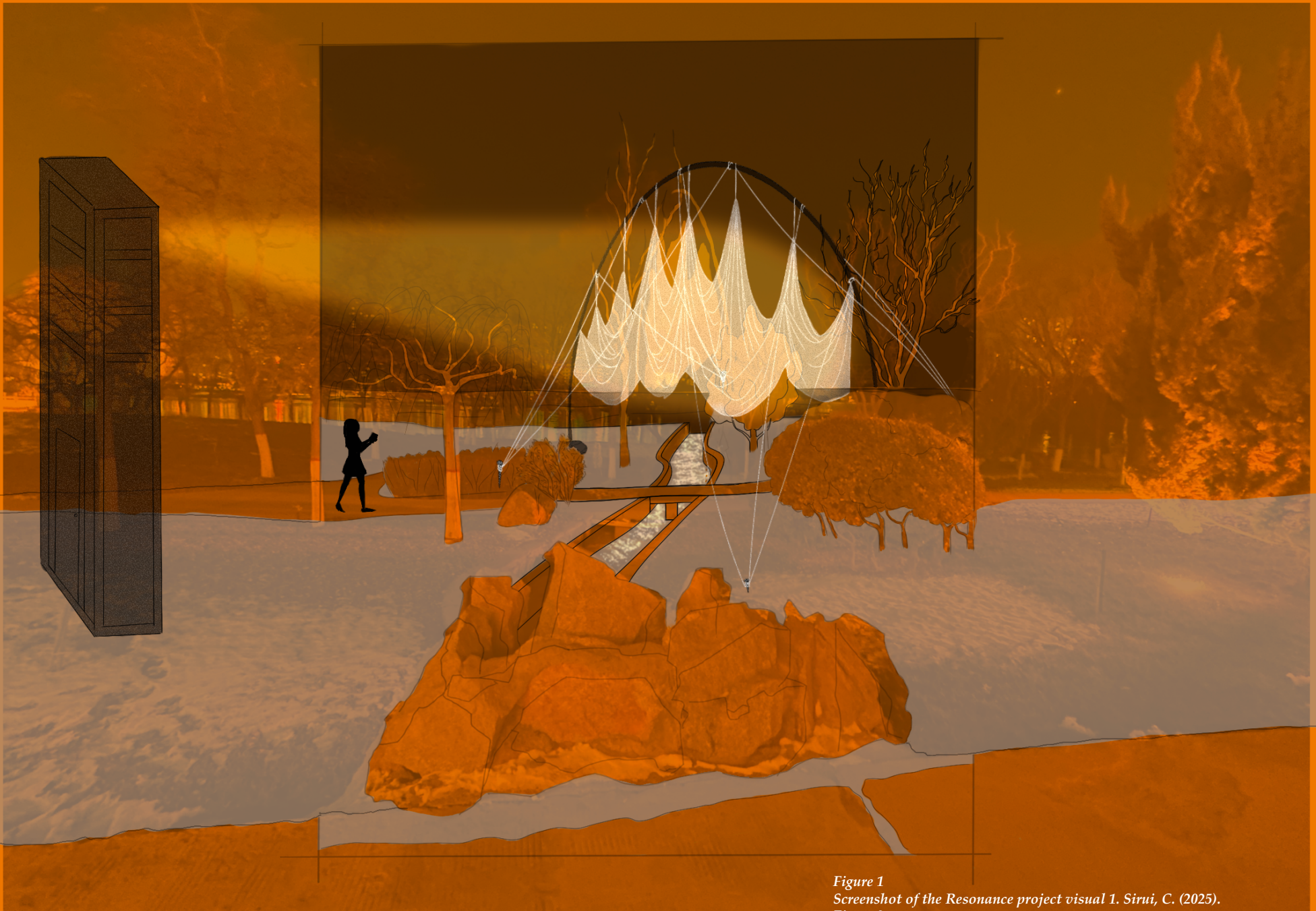


Figure 1
Screenshot of the Resonance project visual 1. Sirui, C. (2025).
Figure 2
Installation sketch map. Sirui, C. (2025).

Resonance

Site-specific intermedia installations for the endangered Yellow River Stone Forest in Lanzhou.

**A thesis presented in partial fulfilment of the requirements for a Master in Design at Massey University,
Wellington, New Zealand**

Sirui Chen



Abstract

The Yellow River Stone Forest ('YRSF') is a unique geological landscape in Jingtai County, Gansu Province, China. It records the Yellow River Basin's geological evolution and cultural memories. However, due to the construction plan of the Heishanxia Dam on the upper reaches of the Yellow River, a large part of the Yellow River Stone Forest is at risk of being permanently submerged, and its natural landscape and cultural value may disappear.

Lanzhou, the capital city of Gansu Province, is an important cultural town shaped by the Yellow River. Over time, Lanzhou City has relied on the river for its economic and social developments, and the local community holds deep cultural and emotional ties to this landscape. Thus, the challenge faced by the YRSF also impacts the cultural memory shared by the residents. This makes it particularly important to create an artwork about the Yellow River Stone Forest in Lanzhou's public space.

Choosing the Yellow River Stone Forest as a source of inspiration, and the Longyuan Park in Lanzhou as the installation location, this research investigates how site-specific intermedia installations can effectively encourage a deeper emotional and cultural connection of the Lanzhou Community to the YRSF before its submersion by offering collective reflection and interaction opportunities.

Using Leyla Acaroglu's Disruptive Design Method (DDM), this study investigates how intermedia—projection, spatial composition, and sensory experience can create a unique visitor experience beyond traditional narratives such as documentaries, static photography, or museum-style exhibitions. By integrating with its surroundings, the installation transforms the YRSF into a perceptible and interactive presence, prompting the Lanzhou community to reflect on its connection with this changing landscape.

Keywords: Yellow River Stone Forest, Site-specific Installation, Intermedia, Projection, Heishanxia Dam, Yellow River, Lanzhou.

Figure 3
One of the peaks of the Yellow River Stone Forest. Sirui,
C. (2024)

Research Question

How can site-specific intermedia installations engage the emotions of the local community in Lanzhou and connect them with the vanishing Yellow River Stone Forest and its cultural significance?

Figure 4
Drawing of the Yellow River Stone Forest. Sirui, C. (2024)



Figure 5
Collage of the Resonance Project. Sirui, C. (2025)

Acknowledgement

This is my first formal exegesis for my master's degree, and it really means a lot to me.

I'm truly grateful to my parents, Yan Li and Xiaowei Chen, who have supported me unconditionally throughout my studies. I'd also like to thank my other family members for always giving me the confidence to keep doing what I love.

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Figure 6
Photo of author's mother walking along the bank of the Yellow River in Lanzhou. Sirui, C. (2025)



Figure 7
Photo of author's father jumping the folk dance. Sirui, C. (2025)

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*Figure 8
Photo of the Yellow River Stone Forest.
Baiyin City Government. (n.d.)*

INTRODUCTION

Resonance: The power to evoke an enduring image, menondest emotras.
(Resonance, n. Meanings, Etymology and More | Oxford English Dictionary, n.d.)

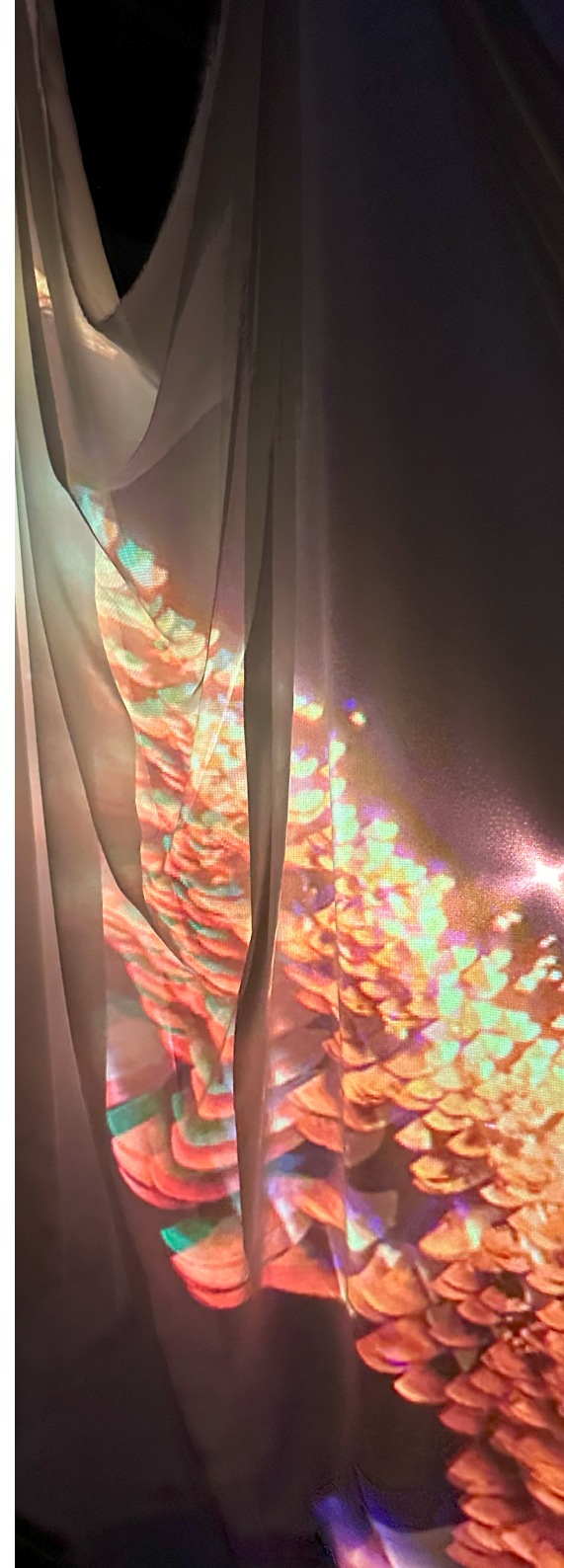
Before getting into the specific research background, I would like to share my connection with this land and how it inspired my thinking for this project.

As a local resident of Lanzhou, I grew up by the Yellow River and have a strong interest in the rich historical and cultural memory of the Yellow River Basin. This is why I went to explore the Yellow River Stone Forest, a unique geological landscape that carries the profound cultural significance of this land.

However, I was shocked that despite the importance of the Yellow River Stone Forest, many locals, including my mother, who loves to travel and is familiar with many local attractions, have never visited the Yellow River Stone Forest and are unaware that a large part of it will be submerged due to the construction of the Heishanxia Dam (Gansu Provincial Government, n.d.).

This fact prompted me to carry out this project. As a designer, I hope to use the technology I have mastered to create an experience for the Lanzhou community to arouse their attention to this land and to promote their emotional connection with the Yellow River Stone Forest before it disappears.

Figure 9
Collage of the Resonance Project. Sirui,
C. (2025)



Geographical information, historical and cultural significance of the Yellow River Stone Forest



Figure 10
Photo of the YRSF. Sirui, C. (2024)

Gansu Jingtai Yellow River Stone Forest (see Figure 10) is a national *4A-level natural heritage site located in Jingtai County, Baiyin City, Gansu Province, north of Lanzhou (Gansu Provincial Government, n.d.; Shilin Scenic Area, n.d.). It is widely regarded as one of the most magnificent natural landscapes in Northwest China and has long been considered one of the important birthplaces of Yellow River civilization.

Beyond its majestic appearance, the Stone Forest carries a rich cultural memory. One example is the nearby Longwan Village (see Figure 11), where about 2,000 residents have lived alongside the Yellow River for generations. Their beliefs, housing styles, and folk traditions—including sheepskin rafts, papercutting, and iron flower performances (see Figure 12-14)—all reflect the deep cultural ties between the land and its people (Baiyin Municipal Government, n.d.).



Figure 11
Yellow River flowing across the YRSF. Sirui, C. (2024)

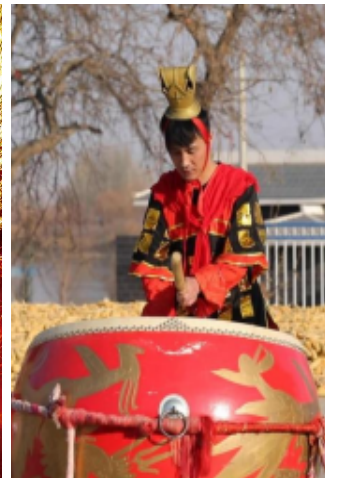


Figure 12-14
Sheepskin Rafts, Papercutting, and Iron Flower performances. Baiyin City Government. (n.d.)

Local mythology further emphasizes this connection. Panlong Cave (see Figure 15-17), a sacred site in the stone forest, is associated with dragon worship. Villagers used to burn incense and pray to the Dragon King—an ancient deity of rivers and rain—hoping for favorable weather and bountiful harvests (Eberhard, 2006; Zhongyang Minzu University, n.d.).

Inspired by this interweaving of natural and cultural identity, I introduced “Tai,” a fictional dragon guardian, as the symbolic centerpiece of this project. Its shape and characteristics are derived from the Yellow River Stone Forest’s geomorphology and dragon legends. One visual element of “Tai” is based on “iron flower,” a form of intangible cultural heritage performance involving the dramatic scattering of molten sparks (Jingtai County Government, n.d.). This visual becomes a metaphor for cultural prosperity and resilience, reimagined through projection.

While the site holds tremendous cultural and ecological value, it now faces serious threats due to the construction of the Heishanxia Dam.

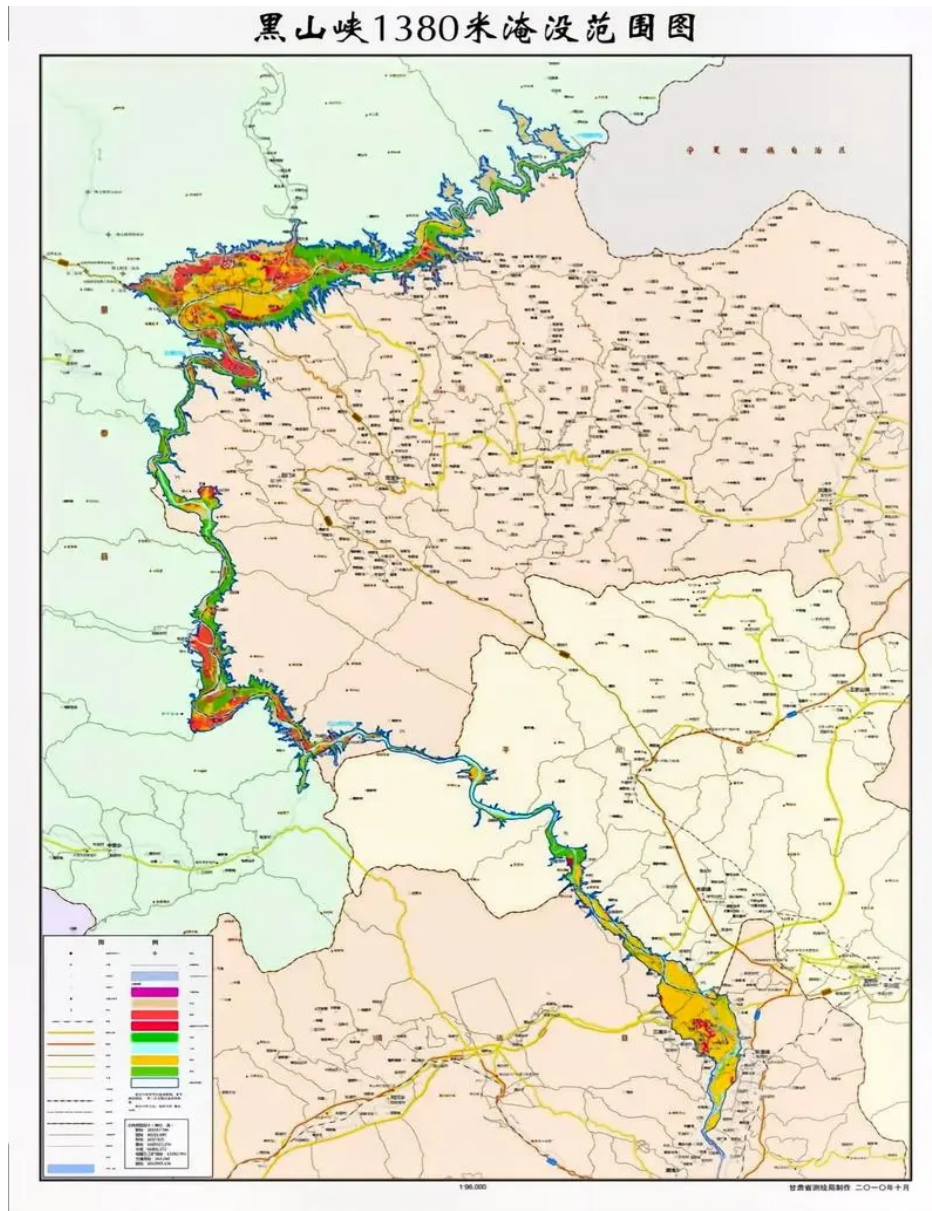


Figure 15-17
Panlong Cave and the temple inside. Sirui, C. (2024)



Threats to the Yellow River Stone Forest: Why build the Heishanxia Dam?

*Figure 18
Yellow River, Heishan Xia Area. China Valve Enterprise
Data. (2024)*



*Figure 19
Heishan Xia Dam Submersion Area. Gansu
Provincial Bureau of Surveying and Mapping.
(2010)*

As a result of the climate warming, the water level of the Yellow River continues to rise, posing a great threat to the safety of residents around the Yellow River. Therefore, the government has decided to build the Heishanxia Dam nearby (see Figure 18) to mitigate the disasters caused by the Yellow River floods.

Another major reason for building the dam is that the water resources created by the dam will be used for power generation and other energy to improve the economy of the surrounding villages.

However, the dam construction plan has been controversial since it was proposed because once the dam is built and water is stored, the water level of the Yellow River and the surrounding areas of the Yellow River Stone Forest will rise. The result of this will mean that Panlong Cave, Longwan Village, and a large part of the main body of the Yellow River Stone Forest that is at a low altitude will be submerged (Gansu Provincial Government, n.d.).

The submerged height will reach 1380 m (see Figure 19). (The discussion that lasted for more than 70 years finally came to fruition: Gansu and Ningxia jointly announced the submerged area of the Yellow River Heishanxia project, n.d.).

The importance of public participation and local awareness in Lanzhou

During my research, I found that the Yellow River Stone Forest was not a popular tourist destination for both local residents and tourists (Tencent News, 2023). For example, for local residents of Lanzhou like my mother, the cultural values and threats faced by the Yellow River Stone Forest were not widely known, and the corresponding literature was relatively scarce. After I told my mother that the Yellow River Stone Forest was going to become submerged as a result of the dam construction, she thought about visiting it before it disappeared. This phenomenon reflects the low awareness of this landmark in the local community and the limited public attention to its future fate.

In addition, on China's popular social media travel guide, 'Red Note' (Sohu News, n.d.), most posts related to the Yellow River Stone Forest carry the word 'niche' (see Figure 20, 21), indicating that it is still in the category of less popular tourist destinations and has not yet entered the public eye. In contrast, many widely recognized natural landscapes in China are often accompanied by cultural narratives and local symbols, which make them occupy an important position in people's collective memory, such as Mount Huangshan, which is frequently featured in classical poetry, traditional ink paintings, and modern tourism branding (Huangshan Municipal Government, n.d.).

Therefore, how to enhance the cultural identity of the Yellow River Stone Forest in the local community is a question worth exploring.



Figure 20-21
Searching Result of "Jingtai Yellow River Stone Forest" on the Red Note. Red Note. (2025)

Site-specific installation and intermedia art

Site-specific installation emphasizes the relationship between an artwork and a specific environment. The artwork is not only the artwork itself but also becomes a part of the site. Through interaction with the environment, site-specific art can enhance the audience's sense of identity with the site and encourage them to pay more attention to the uniqueness and cultural value of the site (Kwon, 2004).

Intermedia art conveys the same theme or concept on or through multiple platforms or types of media by combining multiple media (such as video, sound, interactive installations, etc.). This art form creates a richer and more multi-layered exhibition experience by breaking the limitations of a single medium (Higgins & Higgins, 2001).

The combination of the above two art forms goes a step further, closely combining these media approaches with a specific environment to create works that are inseparable from the environment. This type of work is not just a static display but interacts with the site through various media forms, emphasizing the uniqueness and importance of the environment and prompting the audience to understand the cultural and natural background of the site deeply (Awan, Schneider, & Till, 2011). In this way, transmedia intermedia site-specific art can effectively enhance local identity and inspire the audience to pay attention to site protection and cultural heritage.

RESEARCH AIM

This project aims to create a meaningful public spatial experience for the local community in Lanzhou through site-specific intermedia installations that invite people to engage with and appreciate the story of the guardian 'Tai' of the Yellow River Stone Forest ('YRSF'). It encourages a deeper emotional and cultural connection to the YRSF before its submersion. By offering opportunities for collective reflection and interaction, the project will empower the community to recognize and actively protect their natural heritage, not only for the YRSF but also for other cultural sites facing imminent change.



Figure 22
Photo of the YRSF 1. Sirui, C. (2025)



Figure 23
Photo of the Longyuan Park, Residents are doing morning exercises. Lanzhou
Yellow River Scenic Area Management Committee. (n.d.)

SCOPE

This study explores how site-specific intermedia installations can enhance the emotional and cultural identity of the local community in Lanzhou with the Yellow River Stone Forest. Drawing inspiration from the unique geomorphology and cultural significance of the Yellow River Stone Forest in Jingtai County. This project selects Longyuan Park (see Figure 23) in Lanzhou as the installation site, aiming to create a spatial and emotional bridge between the two locations.

Two separate installations are situated at different locations within the park, each representing a distinct phase of the narrative and symbolic function of the project. One installation visualizes prosperity, using abstract projections of flowing scales that morph into iron flower-like forms; the other installation presents sleep, evoking the mythical guardian dragon's quiet retreat through mist, projection, and sound. These two pieces complement each other and together embody the rise and fall of the Yellow River Stone Forest's spiritual vitality.

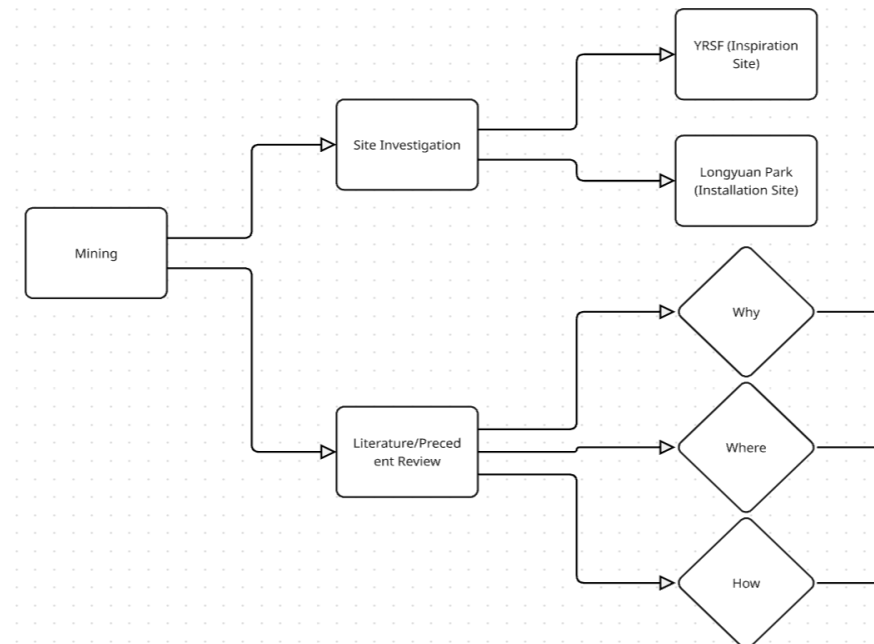
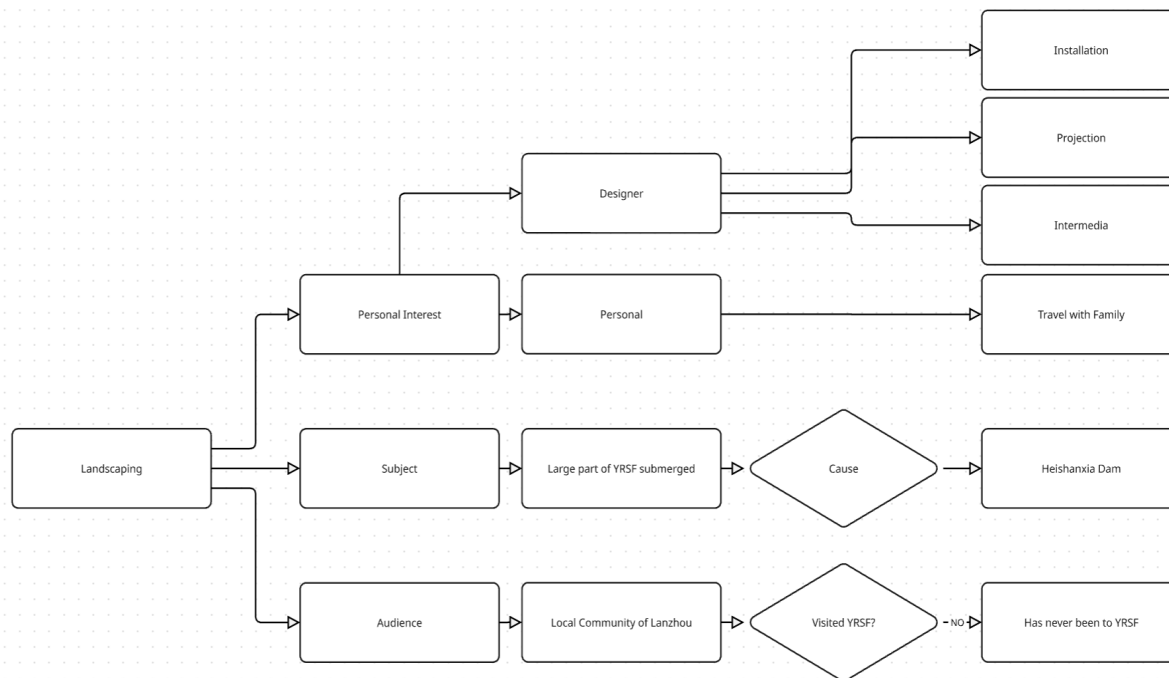
The project focuses on how visual projection, sound design, and installation art affect the audience's emotional and cognitive experience, and uses the Disruptive Design Method (DDM) to stimulate the audience's active thinking in a non-traditional narrative way. The scope of the research is limited to Lanzhou City, mainly targeting local residents, and is grounded in practice-oriented research methods, including case analysis and prototype testing.

This study does not involve geological, ecological, or policy analysis of the Yellow River Stone Forest, but focuses on how the shaping of cultural identity might be reflected or encouraged through artistic intervention. The project also intends to collaborate with the Lanzhou Municipal Government in the future to carry out public engagement through park-based events. As an intermedia designer, I will continue to explore possible opportunities for long-term interaction.

PROJECT WORKFLOW

The workflow (see Figure 24) of this project mainly included three stages to ensure a systematic approach to research and creation. This approach worked for answering my research question.

To begin, background research of the cultural and ecological value of the Yellow River Stone Forest was explored, and the impact of its impending disappearance was analyzed to clarify the research direction. Subsequently, the relevant geographical, historical, and sensory elements were further extracted. Including the geomorphic features (mountain shape and color of the Stone Forest), regional cultural symbols (such as dragons, iron flowers, and worship culture in the Yellow River Basin), and sound materials in the Yellow River Stone Forest (the sound of water and wind). These were sorted to provide a conceptual basis for the installation design. Finally, during the design and implementation phase, the research findings were transformed into specific installation plans, and through prototyping and continuous iterative testing, the unique intermedia experience was presented to promote the audience's cognitive and emotional connection with the Yellow River Stone Forest.



RESEARCH QUESTION

How can site-specific intermedia installations engage the emotions of the local community in Lanzhou and connect them with the vanishing Yellow River Stone Forest and its cultural significance?

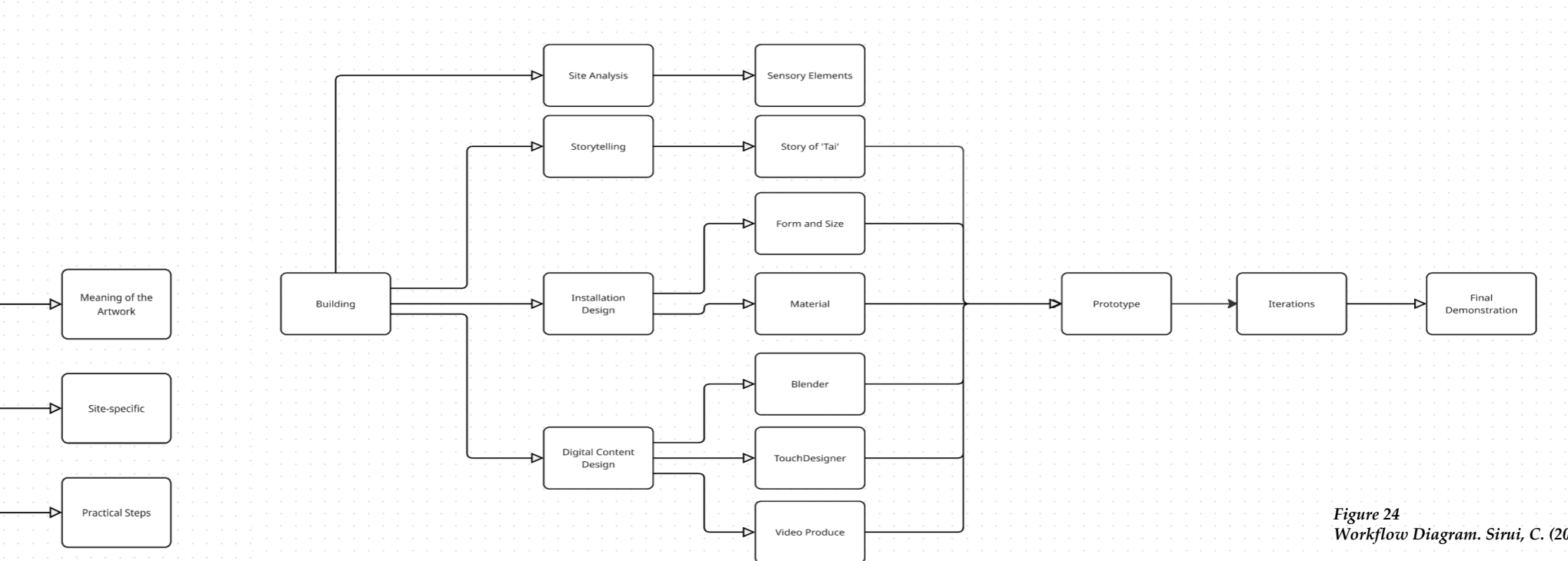


Figure 24
Workflow Diagram. Sirui, C. (2025)

OVERVIEW

The research goal for *Resonance* is to make the local community in Lanzhou more aware of the cultural value of the Yellow River Stone Forest and to establish a deeper emotional connection with it. Therefore, the installation of this project is not only to "show" the disappearance of the Yellow River Stone Forest but also to actively trigger the emotional response of the audience and guide them to think and have a sense of identity in relation to the forest. This is "disruptive" design because this work is intended to break daily habits and make the audience aware of their relationship with the environment.

DDM provides a systematic design framework for this project. Through the three steps of disrupt, intervene, and disruptive thinking, each link of the design gradually advances to form an organic whole. Through these stages, *Resonance* breaks through the limitations of traditional artistic expression, engages the audience in the experience of a specific place, and encourages a deep sensory and emotional connection with the disappearance of the Yellow River Stone Forest.



Figure 25
Entrance of the YRSE. Sirui, C. (2025)

LITERATURE REVIEW

Spatial Agency

Urban public spaces are places where digital culture and technology have had a huge impact on human life. According to the Tate Proceedings, the changes brought about by the emergence of multimedia technologies, digital media, and real-time technologies involve real and profound challenges for artists (Gere, n.d.). These changes have created opportunities to rethink how the public engages and interacts, laying the groundwork for projects that integrate digital and spatial practices.

The concept of Spatial Agency is more than just a way of creating static buildings, as described by Awan et al. (2011). It sees design as a tool to create social, cultural, and ecological change (Awan et al., 2011). Henri Lefebvre's theory of spatial production argues that space is socially produced and continually reshaped by power dynamics, while Marx's theory of praxis emphasizes action and reflection in the process of transforming society (Lefebvre, 1991; Marx, as cited in Awan et al., 2011).

This concept redefines the role of architecture, the art of space, from simply designing static objects to being a catalyst for social, political, and ecological change, emphasizing the interconnectedness of the physical, social, and environmental dimensions. Awan et al. point to motivations that include political advocacy, professional ethics, ecological awareness, and educational innovation, motivations that are highly compatible with the goals of the *Resonance*.

The project aims to address the ecological and cultural challenges of the irreversible disappearance of the stone forest due to the construction of dams and to promote public participation through a combination of cultural preservation and ecological education.

Spatial Agency also emphasizes expanding the boundaries of traditional design tasks to include broader social and ecological goals. In this context, the Resonance positions its installations as platforms for cultural dialogue and environmental education rather than merely works of art, deepening the connection between the Lanzhou community and the cultural significance of the site through installation design. In addition, Space Agency advocates for interdisciplinary collaboration and community engagement, a strategy that can enhance the project's relevance and sustainability through collaboration with Lanzhou's local communities, environmental organizations, and cultural institutions.

Despite the challenges of reconciling diverse professional opinions and balancing artistic, ecological, and technological perspectives, Spatial Agency offers significant opportunities for cultural advocacy. By emphasizing participatory design and cultural preservation, the project can serve as a model for promoting ecological awareness and celebrating the cultural heritage of the Yellow River Stone Forest in Jingtai. The spatial agency provides a strong framework for the Resonance, combining participatory design, interdisciplinary collaboration, and cultural advocacy to protect the submerged landscape and promote public participation, exemplifying how new media art practices can address challenges in complex socio-cultural and environmental contexts.

Site-Specific Art and Locational Identity

Site-specific art refers to an art form created for a specific site and is a concept promoted by Californian artist Robert Irwin. In the mid-1970s, sculptors such as Patricia Johnson and Dennis Oppenheim laid the foundation for this form through practice (Kwon, 2002). While early works mostly emphasized physical interaction with geographical space, the art form has undergone a transformation from physical space dependence to considerations of cultural and social context. As artistic concepts evolved, they gradually turned to in-depth exploration of site historical memory, community relations, and cultural symbols, revealing the dynamic symbiotic relationship between artistic creation and place and community (Kwon, 2002).

In the Chinese context, site-specific art has shown unique development tensions in recent years. Against the backdrop of the recovery of the cultural and tourism industry in the post-pandemic era, cultural and tourism institutions and museums in various places are actively using this type of art form to translate traditional cultural symbols and ecological landscapes into contemporary ones in order to increase social attention. However, there are still two challenges in the practice: on the one hand, it is necessary to reconstruct the emotional connection between residents and the site through artistic intervention, such as activating collective memory through participatory creation or strengthening identity through the use of local materials; on the other hand, it is necessary to respond to the urgent needs of ecological and cultural protection, be vigilant about the risk of deconstruction of the original site by commercial development, and explore a sustainable balance between artistic creation and heritage protection. This tension reflects an important proposition of site-specific art—how to establish a creative dialogue between aesthetic expression, community needs, and ecological ethics.

According to this proposition, the core of *Resonance* can be divided into three parts according to the primary location (YRSF) and the installation location (Longyuan Park). The first is the relationship between the work and the specific physical environment originally emphasized by site-specific art. By deeply exploring the geomorphic features (see Figure 26) of the Yellow River Stone Forest Scenic Area, such as the morphology and hydrological environment of the stone forest, and applying them to the installation, the projection device forms an organic visual and physical connection with the scene, rather than simply "placing" the device in Longyuan Park as an abrupt existence (Kwon, 2002).

Second, Kwon further expanded the definition of site-specific art in *One Place After Another*, emphasizing the importance of social and cultural context. The Lanzhou area, where the Yellow River Stone Forest installation is located, is famous for its profound Yellow River culture, and the project will also respond to this cultural background in the storytelling of the installation. Drawing on the concept of discursive field in the literature, the design of this project will express the theme in a narrative or symbolic way. The most direct response is to use the image of the dragon "Tai" to symbolize the guardian and prosperity of the Yellow River and convey the importance of the Yellow River culture and cultural protection.

Third, community participation should be combined with new types of public art. Kwon (2004) mentioned the 1993 Chicago "Culture in Action" project, pointing out that the cooperation between artists and the community not only occupies a core position in the creation of works but also promotes public participation and social dialogue. This shows that artists can transform from the traditional role of creators to guides and cultural practitioners of community dialogue in new types of public art. The emergence of projection installations in public parks is an opportunity for the Lanzhou community to bring up the "Yellow River Stone Forest" again. Moreover, Kwon (2004) mentioned the leading role of the community in public art, emphasizing that art projects must focus on long-term community participation mechanisms. Therefore, regularly holding cultural events or workshops and integrating artistic practice into the daily lives of local residents can also ensure that the social impact of the *Resonance* can continue.



Figure 26
Photo of the YRSF 2. Sirui, C. (2025) 27

The practical projection design process

As a key element of *Resonance*, projection design provides a unique way to present the symbolic meaning of the Yellow River Stone Forest and its changing process. In Jeromy Hopgood's "The Projection Designer's Toolkit," a complete process from concept to implementation is provided for the theory and practice of projection design, including creative development, technical configuration, and narrative enhancement (Hopgood, 2022). Hopgood (2016) believes that projection design is not only a tool for visual expression but also a carrier of narrative. Similarly, *Resonance* hopes to use intermedia installations to show the cultural implications of the story of the guardian Tai bringing "prosper" to the upper reaches of the Yellow River and ultimately choosing to "sleep." Research also stipulates that projection design needs to be consistent with narrative intentions (Hopgood, 2022). Therefore, the theme of "dragon's protection" in the *Resonance* can be reflected by making dynamic images (for example, the dragon's morphological changes), helping the audience feel the ecological and cultural value of the Yellow River Stone Forest in an immersive experience.

Hopgood (2016) provides two key theoretical frameworks in the book: The first is the collaborative theory: projection design is a highly collaborative art form that requires close cooperation with directors, lighting designers, and other artists. In *Resonance*, the realization of the installation will incorporate the research results of Jingtai's local intangible cultural heritage and present the prosperous scene brought by the dragon through projection design. The second is the design intention priority theory: the projection content must serve the purpose of narrative rather than simply pursuing visual effects. This is also the reason why the project will include abstract and symbolic dynamic images, expressing the two core emotions of "prosperity" and "sleep," so that the audience can experience more emotional resonance, thereby preventing technology from taking over the main role.

For the practical design of projection, Hopgood (2016) proposes a systematic workflow that includes preliminary planning, system design, content development, and technical implementation. In the preliminary planning phase, he emphasizes the importance of "site specificity" and requires designers to fully consider site conditions and environmental constraints. This is an important consideration for *Resonance*. In the actual site of Longyuan Park, it is necessary to ensure that the installation adapts to the environmental characteristics of dry rivers and open grasslands. For *Resonance*, these needs are carried out simultaneously with the projection content development (that is, my design process). Through the preliminary investigation of the primary location, the protagonist, and the core narrative points is conducted, and its presentation in the secondary location is planned.

In the practical part, the project will be divided into two parts: tools and field testing. The Projection Designer's Toolkit recommends a variety of technical tools, including media servers such as QLab and Watch Out for managing multi-layered dynamic images, image production software such as Blender (see Figure 27) or TouchDesigner (see Figure 28), and projection mapping software such as Madmapper. *Resonance* uses TouchDesigner, Blender and Mad Mapper to create the projection content and to apply this to the projection surface. The brightness, clarity, and projection angle of the image content are adjusted on-site (see Figure 29), and the operating status of the projection equipment and media server is checked to ensure that the device remains stable during a long exhibition.

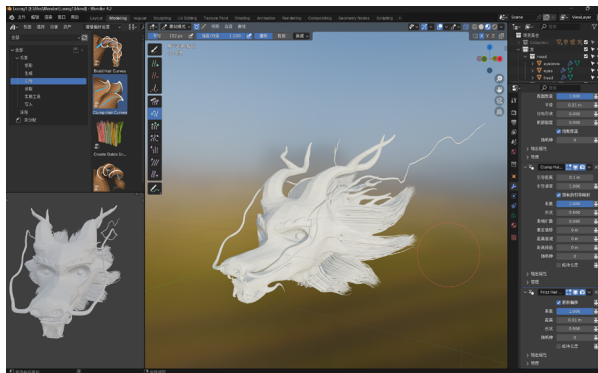


Figure 27
Blender Working Progress. Sirui, C. (2025)



Figure 28
TouchDesigner Working Progress. Sirui, C. (2025)



Figure 29
Testing and Mapping Progress. Sirui, C. (2025)

CASE STUDY

Ann Hamilton: *The Event of A Thread*

Ann Hamilton's *The Event of a Thread* (see Figure 30-33) is an immersive, multisensory installation showcased at the expansive Park Avenue Armory Drill Hall from 2012 to 2013 (Ann Hamilton Studio, 2013.).

The work's central elements include large swings, live performers, readings, soundscapes, and interactions between the audience and the installation. The swing of the swings connects the individual and the curtain, forming a collective dynamic response and demonstrating the mutual influence between people and the environment. Through the reader reading to pigeons in a cage in an act of one-way communication, the meaning of human language becomes blurred and suggestive of a communication barrier between humans and other creatures. Finally, how the sound is recorded and played back on site interweaves the past and the present, enhancing the audience's awareness of the passage of time. These designs emphasize the importance of "weaving," the core of the work, as a symbol of the relationship between people (Ann Hamilton Studio, 2013.).

The main innovation of *The Event of a Thread* lies in the dynamic space and the shaping of collective experience. The work uses the interaction between the swing and the curtain to create a flowing, collectively involved visual and physical experience, rather than a traditional static installation. This experience changes the function of the exhibition space and expands the boundaries of immersive art. Like every thread in a weave, the actions of each audience member affect the overall dynamic of the space, emphasizing the symbiotic relationship between the individual and the group and also guiding the audience to think about their own position in the broader social structure.





For *Resonance*, "Tai," the dragon that protects the Yellow River Stone Forest functions as a symbolic communication medium. This raises questions such as "How does the audience communicate with Tai?" In *The Event of a Thread*, Hamilton (2013) had the reader read to the pigeons, making language, in a sense, a message that could not be truly communicated, highlighting the limitations of communication between humans and non-human things.

Resonance uses the Yellow River as part of the installation through location selection, borrowing Hamilton's way of letting the audience "listen" to the sound of the Yellow River flow and the wind, and making the response of "Tai" a non-verbal emotional communication. "Water" is not only a theme but also a physical experience. The project's projection medium on the light fabric creates a sense of "flowing," echoing the story of the stone forest being flooded by water. "Tai" also has a dynamic connection with the environment; its shape or color is constantly changing, conveying the theme of prosperity while also symbolizing the interaction between humans and nature (see the "Storytelling").



Figure 30-33
The Event of A Thread. Hamilton, A. (2013)

OoopStudio-*Bosco Mistico*

Bosco Mistico (Mysterious Forest) is an immersive new media art installation (see Figure 34). Ooop Studio wanted to explore the connection between humans and nature through this work and invites the audience to rediscover the mysterious vitality of the forest. The core concept of the work is that when human machines stop working, the forest is still silently "breathing" and "operating," continuing life in its own way. The work uses the forest at night as a specific venue and immerses the audience in the "mysterious ritual" of the forest through video projection, transparent materials, sound design, and multi-sensory experience (Ooops Studio, 2020). The projected image is not a simple documentary presentation but a geometric and monochrome artistic processing xxx, which transforms natural elements such as trees, leaves, insects, etc., into abstract dynamic images, intertwining reality and virtuality and enhancing the dreamy atmosphere of the work. For the audience, *Bosco Mistico* makes the forest a "living organism" rather than a passive landscape. The audience are not only observers but also experience an immersive journey, where they can re-examine the relationship between man and nature.

The innovation of this work lies in the high integration of venue and experience, resulting in an in-depth expansion of immersive experience. As an installation artwork with strong location dependence, the opportunity of "dialogue between man and nature" created by *Bosco Mistico* (2020) can only be truly immersive in a forest environment. In terms of vision, the use of transparent material projection allows the image to blend with the forest background, making it a part of nature rather than an independent display of the environment. The specificity of experiencing the forest environment—hearing, smell, and touch—are better responses to the choice of location, the chirping of insects and birds in the forest, the pleasant sound of wind blowing through leaves, the smell of soil and the smell of grass on plants, and the moment when fingertips brush against tree trunks and lawns -combined, they are the "whole package feeling" that cannot be experienced in cities or closed spaces.

Another point worth mentioning is that the exhibition time of *Bosco Mistico*'s works takes place from dusk to night (Ooops Studio, 2020). As a project that includes projection, this choice is actually quite common. But what is very clever is that the integration of this time period with the location and the theme of "vitality" allows the audience to re-understand nature in a time period that is usually not paid much attention to by emphasizing the vitality of the forest at night.



Figure 34
Bosco Mistico. Oops Studio. (2020)

In the *Bosco Mistico* and *vvv*, the site is not only a background but also a part of the work. The "vitality" brought by the site runs through the entire work.

As for the site selection, Longyuan Park has two points that need to be focused on for this project: the first is how to strengthen the characteristics and make it an important element of the story narration. As a park with the theme of "dragon," the audience can naturally accept the setting of "Tai" as the protagonist of the story, and this leads to the second question: how to use the natural environment of the park—the terrain, the flow of the Yellow River, the sense of elegance brought by the wind, and even the changes in light and shadow at night—so that it resonates with the theme of protection and sleep of "Tai."

Inspired by *Bosco Mistico*, the strategy of the project is set so that the audience needs to actively enter the environment and enhance physical perception. The project encourages the audience to walk along the dry waterway, gradually experience the prosperity and sleep brought by "Tai," and feel the changes in the installation from different angles.

Yann Nguema: *GRAVITY*

The *Gravity* Project is a dynamic sculpture (see Figure 35-38) that combines wind, light, image projection, and sound, attempting to create a new sensory experience in the historic Collegiate Church of Saint-Martin (Nguema, 2021). The creation of the work is inspired by the work of Daniel Wurtzel (see Figure 41). It extends the exploration of the interaction between air and matter, breaking through the design method of traditional installation art that mainly uses solid matter and combining modern digital technology to enhance the role of silk curtains as screens, integrating art and technology to create a modern perceptual experience in traditional religious spaces. It transforms traditional religious spaces into a dynamic art field, enhancing the experience of the place in a non-invasive way. This intermedia creation method allows the audience to interact with space and emotion during the viewing process, thereby rethinking and experiencing the relationship between historical places and modern art.

According to Yann Nguema (2021), the technical realization of the work consists of five parts, namely wind system design, silk material and suspension design, digital projection technology application, sound design, and space layout design. By using fans to create controllable airflow, the light silk curtains are suspended and dance, forming a smooth dynamic form, and then the silk is used as a translucent dynamic screen as a carrier of the image. Five similar installations are installed in the transepts on both sides of the main aisle of the church. The light, echo, and other characteristics inside the building are used to enhance the spatial perception of the work, allowing the audience to watch or walk through it from multiple angles, enhancing interactivity and immersion.



Figure 35
GRAVITY 1. Yann, N. (2021)



Figure 36
GRAVITY 2. Yann, N. (2021)



Figure 37
GRAVITY 3. Yam, N. (2021)



Figure 38
Air Play Show. Daniel, W. (2015)

The innovation brought by Gravity (Nguema, 2021) increases the possibility of information communication. This is also a new practice path for the *Resonance*. Compared with traditional large-scale installation art, how can the *Resonance* use lightweight materials and the physical properties of the park environment to create a dynamic, immersive experience without destroying the space?

If the Gravity project is an extension of Daniel Wurtzel's research (see Figure 42), then the *Resonance* is an extension of the practical research of *An Event on a Thread* and *The Gravity*, combining wind-driven sculptures, digital projections, and immersive experiences to try to overcome the limitations of existing technical limitations and spatial dependence (Wurtzel, n.d.).
story of the stone forest being flooded by water.

"Tai" also has a dynamic connection with the environment; its shape or color is constantly changing, conveying the theme of prosperity while also symbolizing the interaction between humans and nature (see the "Storytelling").

METHODOLOGY

In this project, the Disruptive Design Method (DDM) was selected because it offers a structured yet flexible framework for addressing complex socio-cultural and environmental issues. Unlike traditional design methods that often focus on solving clearly defined problems, DDM emphasizes disrupting existing perceptions, intervening in systems, and provoking critical thinking and emotional reflection—qualities that align closely with the goals of this project.

As the Yellow River Stone Forest faces irreversible ecological change due to dam construction, my project aims to raise public awareness and emotional connection through speculative and symbolic cross-media installations. DDM allows me to shift the audience's perception from passive observation to active reflection.

Furthermore, DDM's emphasis on collaboration, empathy, and questioning existing systems supports my use of site-specific art as a way to challenge cultural neglect and activate collective memory.

Disruptive Design Method (DDM)

The DDM (Disruptive Design Method) (see Figure 39-40) is a method to challenge the existing system and stimulate cognitive, emotional, and behavioral changes through design (Acaroglu, 2020). It is particularly relevant to socially engaged or ecologically driven design practices. In this project, which addresses the cultural and ecological disappearance of the Yellow River Stone Forest, DDM helps position the work as not only artistic but also an act of critical engagement.

In the "Resonance" project, DDM provides a systematic framework for the entire design through three steps: landscaping, mining, and building, starting from the Yellow River Stone Forest, ensuring that all stages of the project can proceed in an orderly manner. This design process guides specific practices through the following three "operational" steps: disrupt, intervene, and disruptive thinking. This project architecture achieves an organic integration of system planning and innovative practice.

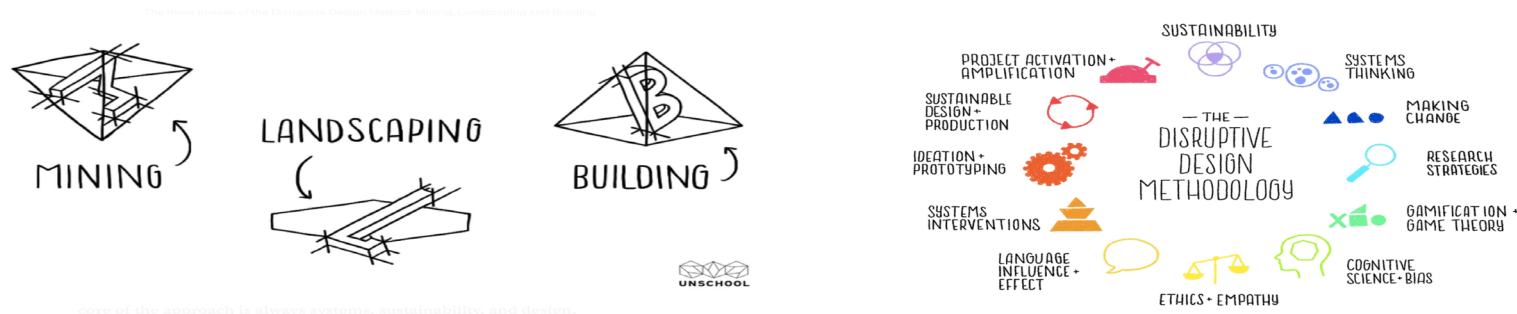


Figure 39,40
The Disruptive Design Method. Leyla, A. (2020)

Step 1

Disrupt: Stimulate thinking through non-traditional expressions

The first step of DDM is to break the routine through "intervention" and stimulate the audience's thinking. In this project, I used intermedia expressions such as abstract images, sounds, fabrics, etc., instead of directly using text or traditional documentary-style visual presentations to undertake research and develop my concept and approach (Aggarwal, 2022).

For instance, instead of representing the Stone Forest with direct imagery or narrative text, I used suspended semi-transparent white chiffon fabric (see Figure 41) that mimics the form of mountain ranges. Its softness and lightness allowed the projection to ripple gently in the wind, suggesting the transient nature of the landscape and evoking emotion through movement.

Through this non-traditional medium, the audience has questions and thoughts: "Why is it like this?" This method does not directly show the disappearance of the Yellow River Stone Forest but rather triggers emotional resonance through the abstracted absence, silence, and memory within the installation. These elements were later embodied by a guardian figure in the projection, but the emotional prompt precedes the literal character.



Figure 41
Semi-transparent White Chiffon. Sirui, C. (2024)

Step 2

Intervene: Create an unusual experience and guide the audience to interact with the work

The second step of DDM is to create an unusual experience in the work. In this project, I set the work as a site-specific installation so that it can directly interact with the natural environment of the site and the emotions of the audience. The design of the installation adopts an intermedia approach, including the combination of vision, hearing, and space, which is more impactful than a single image expression and also allows the audience to understand the disappearance of the Yellow River Stone Forest not only through vision but also through the comprehensive stimulation of the senses.

The audience can walk to different locations in the park to interact with the installation and form a unique emotional connection.

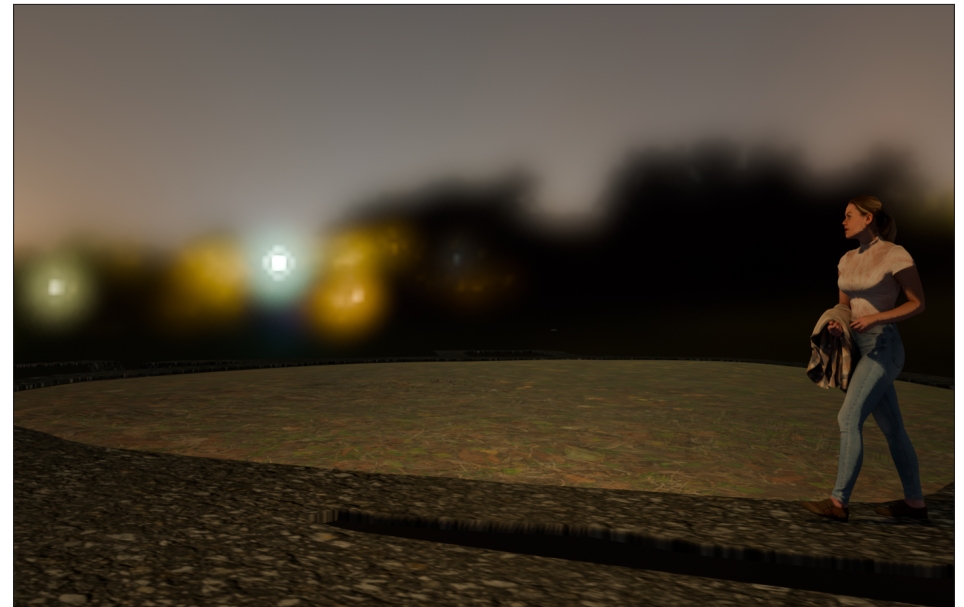
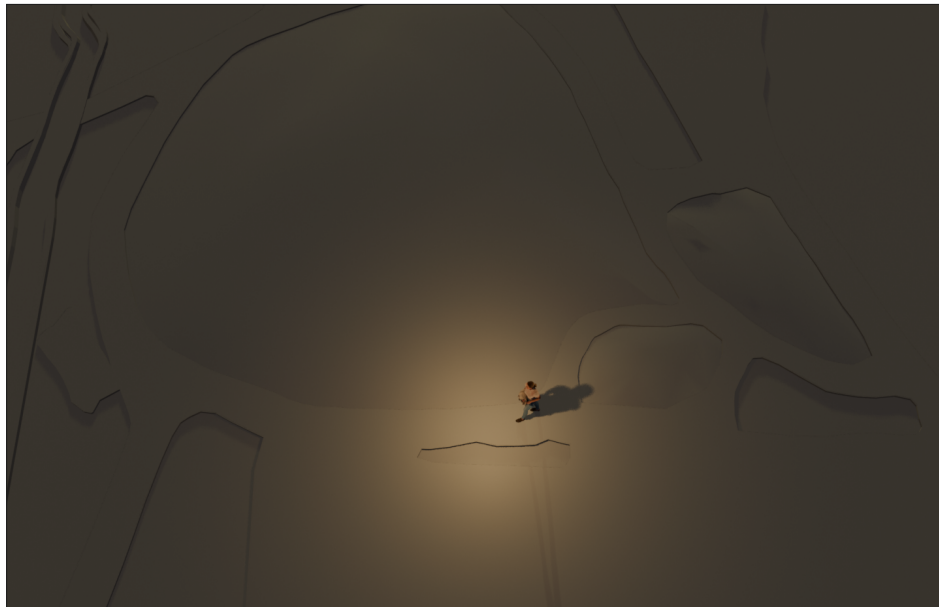


Figure 42-43
Early Stage Blender Simulation. Sirui, C. (2024)

Step 3

Step 3: Disruptive Thinking: Make the audience aware of their role

The third step of DDM is to prompt the audience to reflect on their role in the experience. Rather than a one-way message delivery, the work integrates the audience into the experience through interaction. Visitors can gain different perspectives at different locations in the park, which deepens their understanding and emotional connection with the Yellow River Stone Forest.

For example, when viewers see the guardian figure in a sleeping state, they may associate it with the idea of neglected or forgotten environments or cultural identities. This emotional association is not imposed but gently suggested through metaphor and spatial presence, prompting reflection without direct narrative.

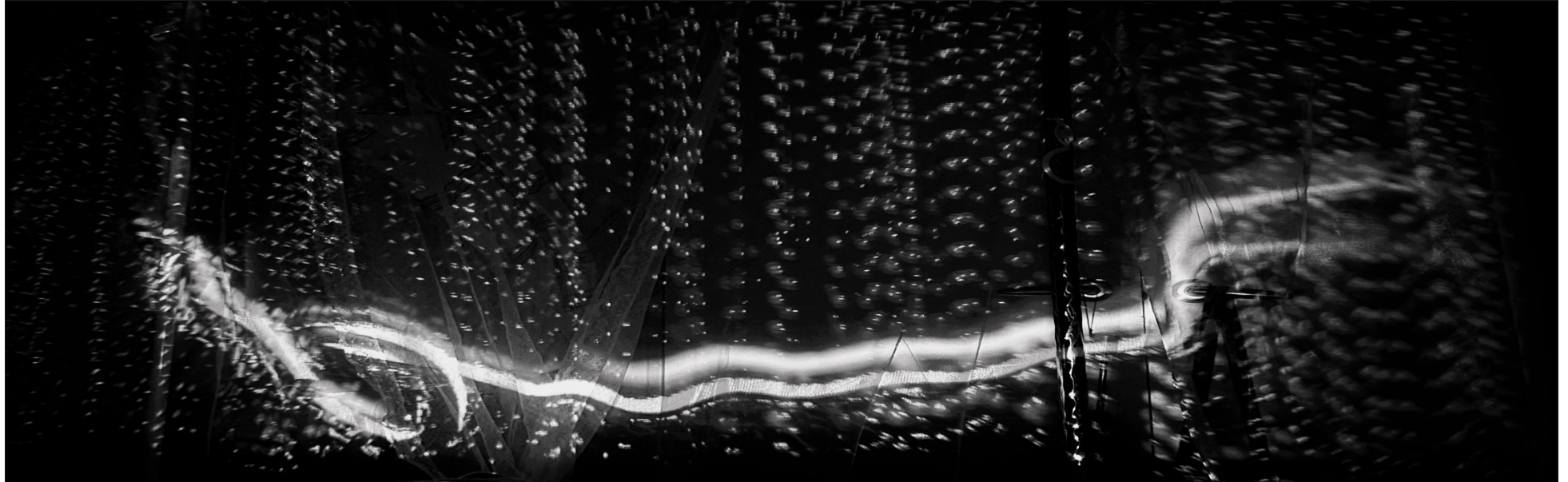
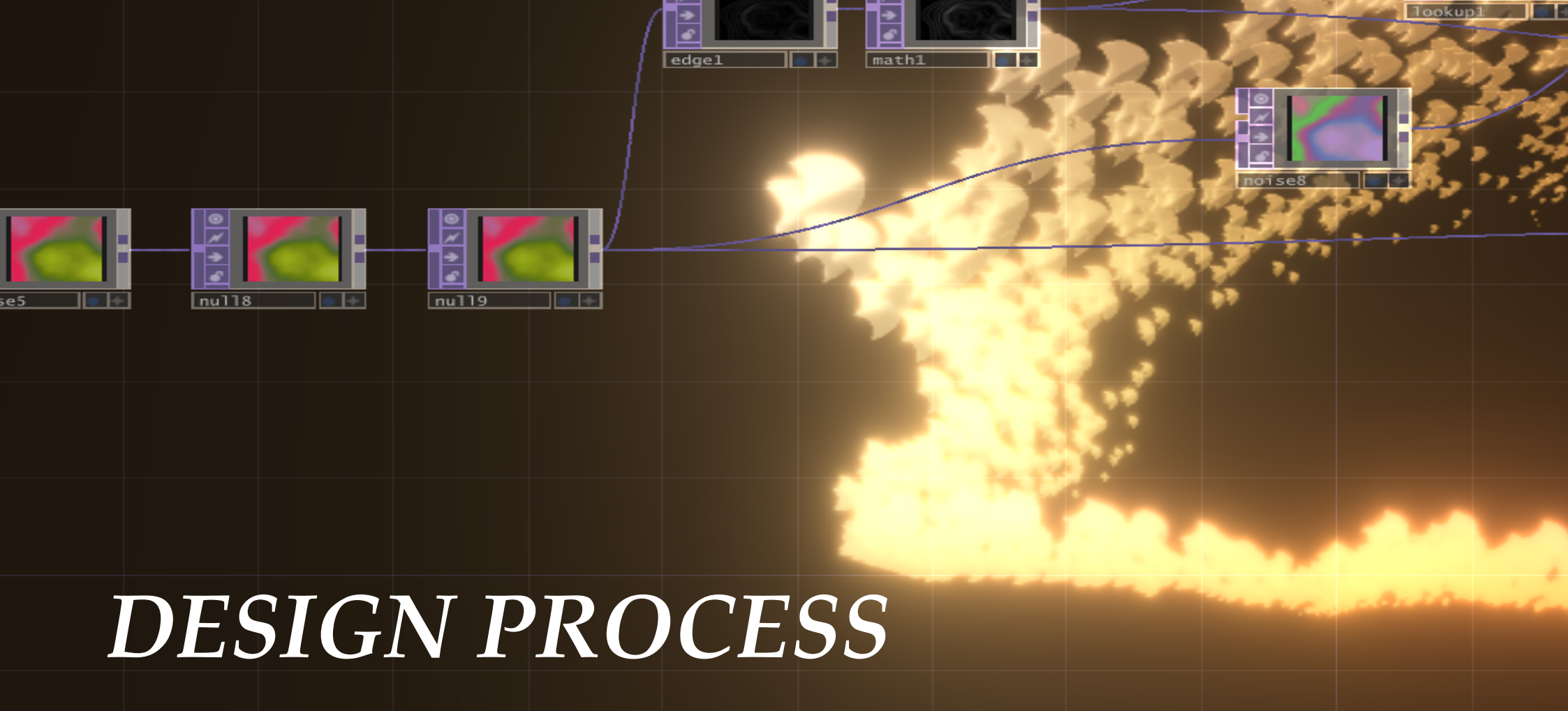


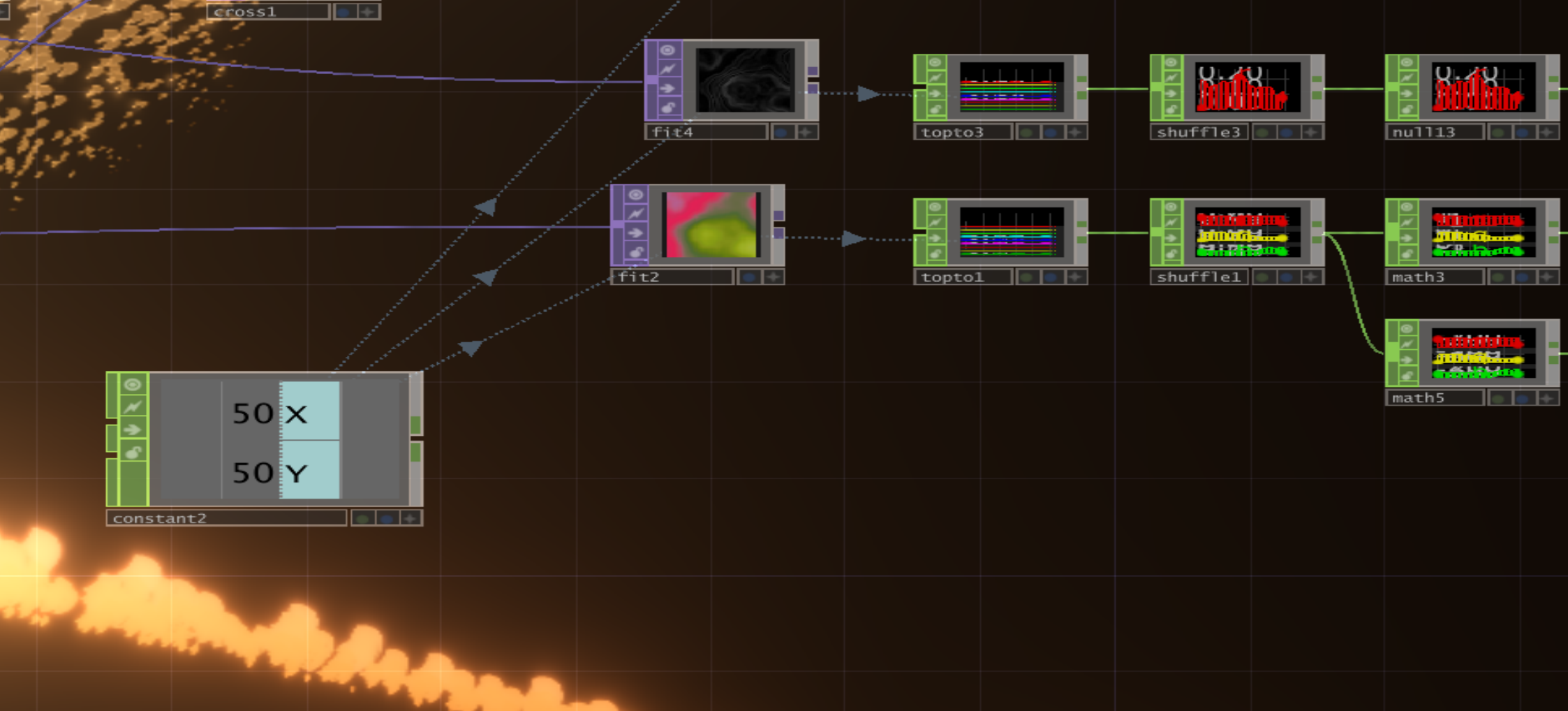
Figure 44
Testing Photo. Sirui, C. (2024)



DESIGN PROCESS

The design process of this project is divided into multiple stages, each of which is closely integrated with research findings to ensure that the final effect of the art installation is likely to achieve its social, cultural, and emotional goals.

First, the design process started with an in-depth study of the cultural background of the Yellow River Stone Forest. Through the investigation and analysis of the current status of the Yellow River Stone Forest, the core theme of the design was clarified: the disappearance of the Yellow River Stone Forest and its impact on local culture. Next, through site investigation and analysis, the geographical, historical, and sensory elements of the area are extracted as the basis for subsequent storytelling design, visual design, and installation design.



In the specific implementation process of the design, elements of intermedia art will be introduced, with visual, auditory, spatial, and other sensory experiences as carriers, and constantly optimized through prototyping and repeated testing to ensure that the installation can effectively stimulate the audience's emotional resonance.

Figure 45
TouchDesigner Workface Screenshot. Sirui, C. (2025)



As the inspiration for the project, the unique landform and cultural background of the Yellow River Stone Forest constitute the core concept of the installation art.

*Figure 46
Location of the YRSF. Google Map. (2025)*

1. Location and Geomorphological Features

Located in Jingtai County, Baiyin City, in central Gansu Province, the Yellow River Stone Forest sits north of Lanzhou and borders the Tengger Desert and Ningxia Hui Autonomous Region. Its geographical coordinates are approximately E 104°15'51"–104°21'54", N 35°52'04"–36°56'17" (Shilin Scenic Area, n.d.).(see Figure 46).

The YRSF is widely regarded as one of the most unique and magnificent natural landscapes in Northwest China (Shilin Scenic Area, n.d.). The landscape is characterized by deep canyons, towering limestone columns, and sharp ridgelines. The elevation of the site ranges between 1390 m and 1710 m (Gansu Provincial Government, n.d.). These formations are non-renewable geological resources that were formed between the late Tertiary and early Quaternary periods.

The elevation of the Stone Forest ranges from 1390 m to 1710 m, geologically, the Stone Forest is a limestone formation shaped by millions of years of water and wind erosion. The terrain is generally high in the southwest and northeast and low in the middle. The Yellow River flows from the southeast, curves northward at Longwan, and forms a deep canyon that cuts through the forest (Gansu Provincial Government, n.d.)



Geographical Features collage collection

Figure 47-48
Collage of Different Landforms of the YRSF. Sirui, C. (2024)

These dramatic landforms and the dynamic flow of the Yellow River evoke a sense of both power and fragility. For this project, they inspired the visual concept of "Tai"—a guardian dragon whose form is echoed in the cliffs and crests of the stone forest as well as the flowing Yellow River.

2.Cultural Memory and Local Beliefs

In the upper place of the Stone Forest lies Panlong Cave, a mysterious natural formation. In local mythology, caves such as this were historically used to worship dragons, believed to be river gods. Villagers offered incense and prayers for rain and peace. Panlong Cave retains a naturally formed Tai Chi pattern on its ceiling, and is often surrounded by seasonal mist that resembles a sleeping dragon, which gave rise to its name.

Adjacent to the site is Longwan Village, an oasis with about 2,000 residents. It maintains strong folk traditions such as sheepskin rafting, paper cutting, and especially iron flower (Da tie hua)—a heritage performance art where molten iron is flung to create fireworks. While not unique to Longwan, it is widely practiced in Jingtai County and has become a visual symbol of regional cultural prosperity. This motif is incorporated into the projected imagery of “Tai” in this project.



Figure 49
Photo Collage or the Culture. Sirui, C. (2025)

The Iron Flower

In this project, I introduced a fictional dragon-shaped guardian, "Tai," (see Storytelling) as a symbolic role connecting nature and cultural memory. Its image is inspired by the unique landforms of the Yellow River Stone Forest and the local dragon god legends, establishing an imaginary connection between nature and mythology.

Among them, an important element derived from the regional culture of Jingtai County is "iron flower" (Jingtai County Government, n.d.)—a traditional intangible cultural heritage performing art that hits molten iron on the wall and bursts out sparks (see Figure 50). Although it is not unique to Longwan Village, it is widely present throughout Jingtai County and is one of the representative cultural symbols of the region. This visual element is reconstructed as part of Tai in this work, presenting the image of cultural prosperity it brings through the dynamic light and shadow-like sparks.



Figure 50
Iron Flower. Baiyin City Government. (n.d.)

2. Impact from the Construction of Heishanxia Dam



Figure 51
1380m Water Level Rise. Sirui, C. (2025)



Water Level Rise

In response to climate-related rising water levels and the need for hydroelectric power, the Heishanxia Dam project is under construction. Once completed, the water level is expected to rise to 1380 meters (see Figure 51).

The submergion will cover Panlong Cave, Longwan Village, Shenlong Valley and other significant places of the Yellow River Stone Forest (see Figure 52).



Figure 52
Submergion Area. Sirui, C. (2025)

3. Design Takeaways and Artistic Integration

The physical structure of the YRSF—its vertical stone formations and fluid river bends—evokes both resilience and impermanence. This duality inspired spatial strategies that explore flow and the fragility of form.

The cultural rituals, particularly the Iron Flower, serve as metaphors for cultural endurance and intangible memory—sparks that burst and vanish but leave emotional traces.

The impending loss of the site informed the project’s emotional tone—one of subtle mourning, reverence, and a desire to create space for reflection before disappearance.

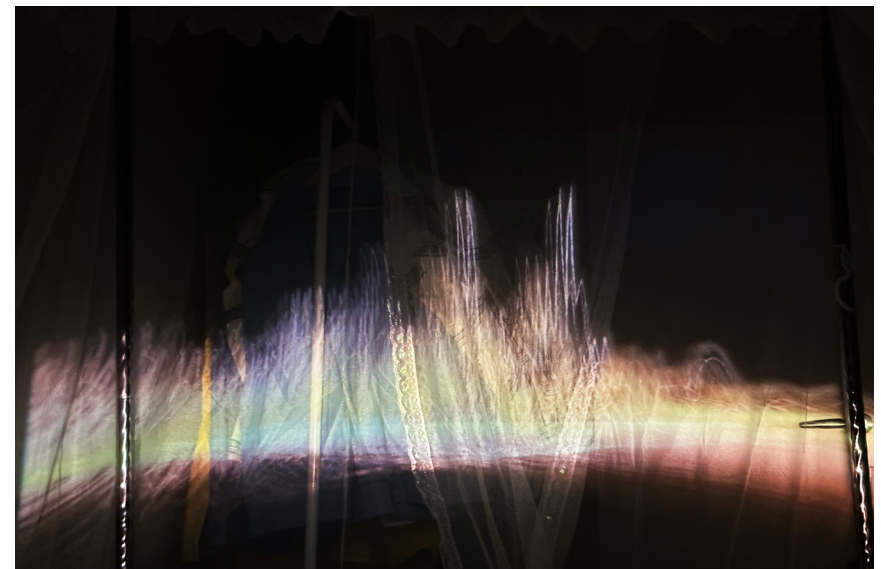
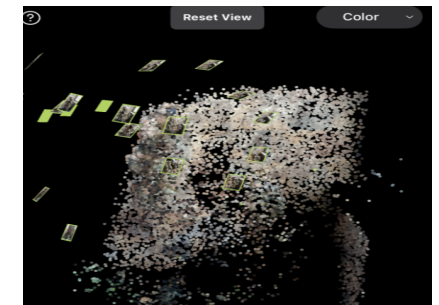
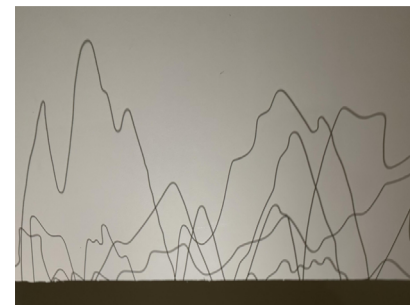
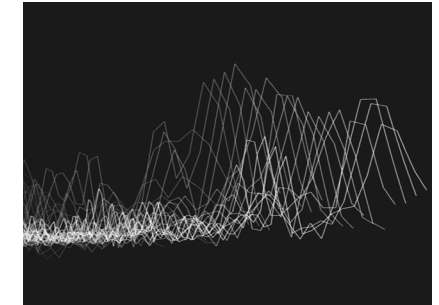
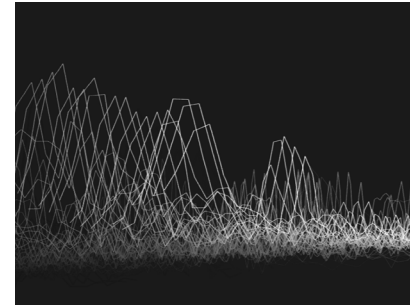


Figure 53-57
Design Takeaways, Audio Visuals, Simple Installation, Point Cloud, Projection testing. Sirui, C. (2025)



Figure 58
Drawing of the Yellow River Stone Forest. Sirui, C. (2025)



Figure 59
Drawing of Tai 1. Sirui, C. (2024)

STORYTELLING

After completing the site survey of the Yellow River Stone Forest, the interweaving of the landforms and the power of the water flow there made me understand it as a "flowing" and "tough" existence, like a sacred and living guardian.

Non-linear narrative, poetic form and symbolic meaning

This work adopts a non-linear narrative structure (see Figure 60), showing the flow of time, the continuation of culture, and the upcoming changes through the perspective of the guardian "Tai." Through a fragmented and cyclical narrative structure, the audience is encouraged to engage with Tai's story at different points in time, experiencing his presence across this significant change in the Yellow River Stone Forest.

The reason why I use a non-linear narrative is that the construction of the dam is not an absolute "disaster." It brings the disappearance of the Yellow River Stone Forest but also includes new development opportunities like generating water energy power and preventing flooding (Cite). Therefore, my project did not set a clear hero or villain but implied a complex relationship between humans, nature, and development through Tai's sleep. Tai neither resists nor judges. He is just a witness of time, not an interferer. This mode of expression allows the audience to interpret the meaning behind environmental changes themselves rather than giving a fixed answer.

Choosing poetry as the core text further strengthens the characteristics of this non-linear narrative. The poem presents Tai's experience in a fluid and open way, echoing the cycle of time while avoiding over-interpretation, allowing the audience to understand the work through visual experience rather than relying on textual description. This form fits the characteristics of the Yellow River—its flow, its changes, and the cultural memory it carries. Tai's existence is not short-lived but has passed through thousands of years, witnessing the changes of the Yellow River Stone Forest, guarding this land and the human beings who thrive there. At the same time, this format gives me greater creative flexibility so that the project does not need to be restricted to a specific story scene but can be freely transformed into visual expression by refining core images and keywords.

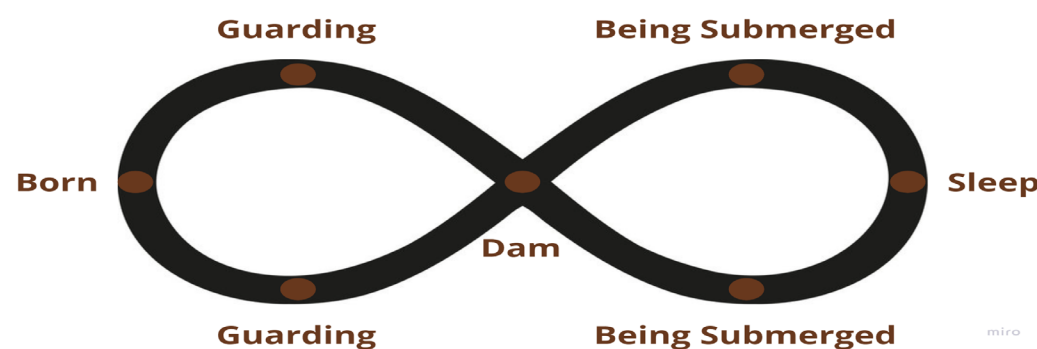


Figure 60
Tai's Story, Non-linear Structure. Sirui, C. (2024)

The relationship between the Yellow River Stone Forest and Tai

Tai's presence brings fertile land and vitality, and his every breath nourishes the earth. When the river and the environment coexist harmoniously, his power blooms, bringing harvest and peace to the earth. However, with the construction of the dam, most of the stone forest will be submerged. Tai was not angry but fell asleep.

Tai's story is not born out of thin air but is based on the temple culture of the Yellow River Stone Forest. The symbolic significance of the dragon in the Yellow River Basin is profound ('Jingtai County', 2024), and the special landform of the Yellow River Stone Forest and its close connection with the Yellow River make the dragon an important part of the cultural memory of this region. The image of Tai inherits this tradition. He not only symbolizes the spirituality of nature and the flow of time but also metaphorically represents the cultural heritage that is about to be submerged.

Tai's sleep can be understood as cultural oblivion, or it can be seen as another form of protection—when the environment undergoes irreversible changes, the culture does not really disappear but settles in another way, waiting to be reawakened one day. This means of expression avoids the transmission of simplistic information and one-sided emotional orientation, allowing the audience to instead think and rebuild the bridge of emotional and cultural connections.

Character Design: Tai

Identity: The guardian of the Yellow River Stone Forest, symbolizing the symbiosis of nature and culture.

Origin and symbol of creation:

Tai's creation is inspired by the sacrificial traditions of the Yellow River Stone Forest, particularly the local worship of the Dragon King, which reflects the region's historical reverence for water deities (Gansu Provincial Government, n.d.). For centuries, Tai has been regarded as the guardian dragon of this land, embodying the enduring spirit of the Yellow River Stone Forest.

The name Tai comes from Jingtai County, where the Yellow River Stone Forest is located. It carries regional connections and symbolizes peace and stability. In the five elements, "Tai" belongs to water, symbolizing the source of life and flowing vitality, and is closely connected with the natural attributes of the Yellow River (Jingtai County Government, n.d.).

Form:

Tai's elongated form mimics the meandering course of the Yellow River, his body shifting like flowing water yet carrying the solidity of eroded rock formations. His golden scales shimmer like sunlit sediment, embodying both the passage of time and the resilience of the land. (Fig. design pic from the rock also the scale design)

Personality traits:

Gentle: Listens to the whispers of wind, water, trees, and rocks in a quiet guardian posture, and coexists harmoniously with all things in nature.

Patience: Witnesses the change of generations across thousands of years, and perceives the cycle and prosperity of nature.

Poetic Response to Site Research:

This poem was written as a creative response to the cultural and emotional insights I gathered during my research on the Yellow River Stone Forest. It reflects the perspective of "Tai," the fictional guardian dragon, embodying the spirit of the site and the sorrow of its potential disappearance.

I am the guardian of this land.

I live in this dark cave.

As the years go by, everything changes.

The Yellow River never stops flowing.

I guard the human race that thrives here.

I have watched them prosper here.

But,

When the homeland is about to be drowned.

I choose to sleep.

I sleep here. I sleep here.

And people don't know my name.

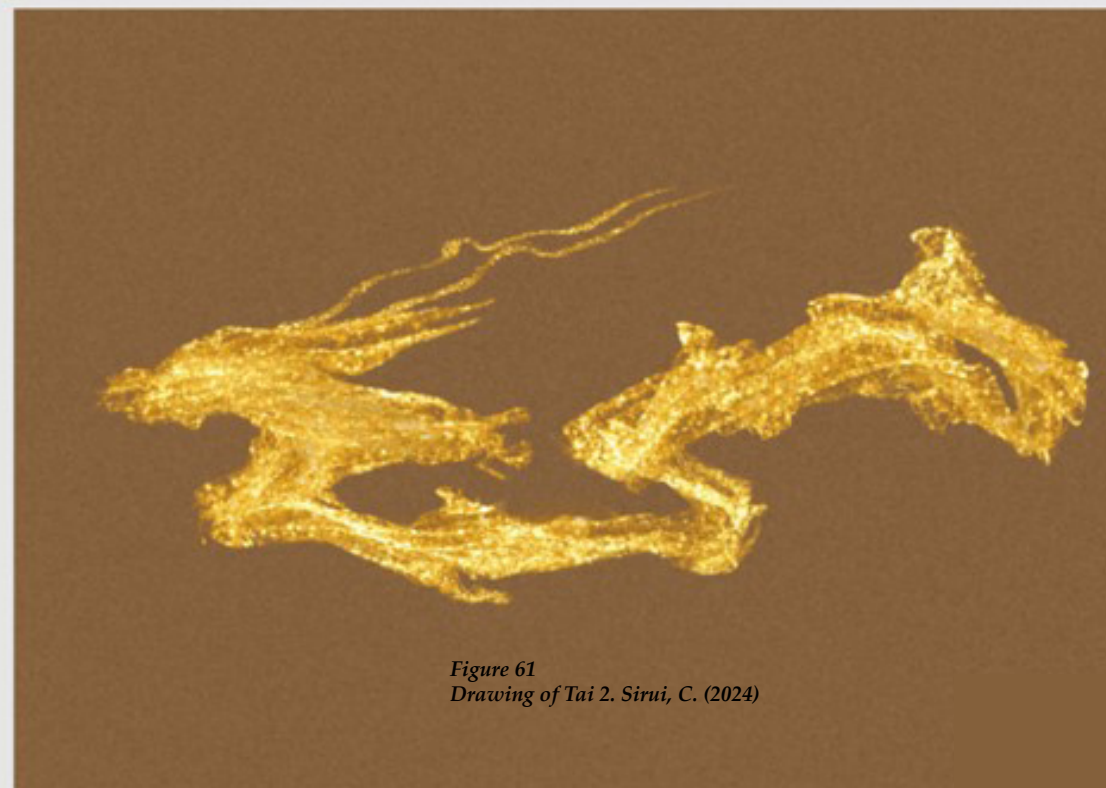


Figure 61
Drawing of Tai 2. Sirui, C. (2024)

SITE ANALYSIS: LONGYUAN PARK



Figure 62
Top View of Longyuan Park. Sirui, C. (2025)



Upper oblique view

*Figure 63
Upper View of Longyuan Park. Baidu Baike. (n.d.)*

Lanzhou Longyuan Park is located between the North and South Riverside Roads, adjacent to the Yellow River. It covers an area of 20 acres, is 300 meters long from east to west, and 60 meters wide from north to south. It was officially started on March 28, 2002. It is the first and only theme park in China with the theme of "dragon" (Baidu Baike, n.d.).

Reasons for choosing Longyuan Park as the display site

There are four core reasons for choosing Longyuan Park as the display site for this project:

Longyuan Park is located in the heart of Lanzhou, alongside the Yellow River, and is known as China's first dragon-themed park . Its convenient location and scenic river views have made it an integral part of daily life for local residents (Baidu Baike, n.d.). Longyuan Park has a rich historical and cultural heritage and is particularly close to the Yellow River. It is a place where natural landscapes and humanistic activities are intertwined, serving as a place of daily recreation for local residents as well as carrying a wealth of cultural symbols.

Proximity to the Yellow River and a close relationship with the Yellow River Stone Forest

Located in Lanzhou City, Longyuan Park serves as a daily activity area for residents of the target community, Lanzhou, and is directly connected to the Yellow River, showing the upstream and downstream relationship between the Yellow River and the Yellow River Stone Forest (see Figure 64). This location has both a cultural connection and facilitates attracting the attention of local residents (Baidu Baike, n.d.).

High Traffic Volume and Public Attention

As one of the main public spaces in Lanzhou, Longyuan Park has a large number of daily visitors and tourists (Baidu Baike, n.d.). Displaying Tai's story in such a crowded location ensures the visibility of the work and spreads its cultural significance among my target audience.

Ample Display Space

The open space in the park is suitable for large-scale installations, providing ample display space for the work and enhancing its visual impact (see Figure 65). At the same time, the landscape of the park will enable the work to blend harmoniously with its surroundings and enhance the audience's sense of immersion.



Figure 64
Lanzhou to YRSF. Google Map. (2025)



Figure 65
Longyuan Park- Pool. Sirui,C. (2025)

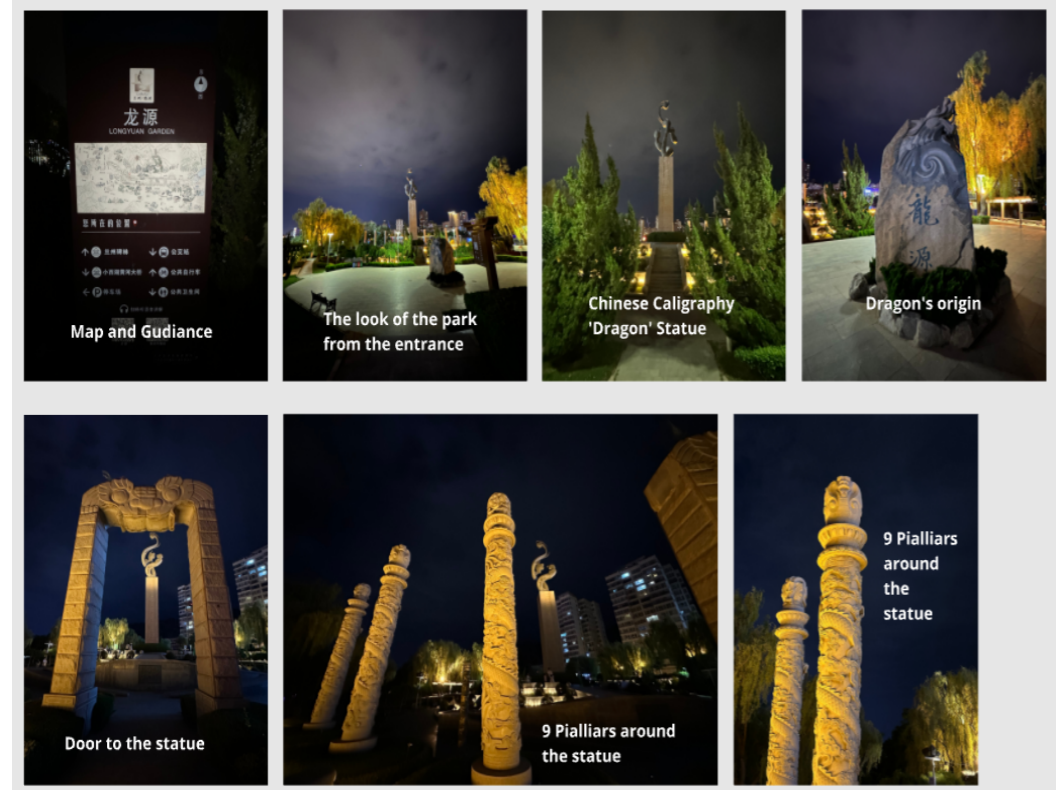


Figure 66
Some of Dragon Symbols in the Park. Sirui, C. (2025)

Continuity of Dragon Culture

As the most important point, the existing cultural symbols (dragon culture) (see Figure 66) of the selected site enhance the readability of the work and the intuitive understanding of the audience. Kwon (2002) mentioned the theory of "contextual perception" when analyzing the "discursive field," that is, the meaning of an artwork is not only determined by the work itself but by the interactive relationship between the work and the site. This project copies Longyuan Park as the installation site to take advantage of this phenomenon. There are already a lot of dragon elements in the park, forming a "visual context," so even if the style of the work is abstract, the audience can quickly understand its theme related to "dragon."

SITE-SPECIFIC INSTALLATION STRATEGY

To ensure that the story of Tai and the cultural memory of the Yellow River Stone Forest are effectively integrated into Longyuan Park, I developed a structured installation strategy. The strategy includes three key phases: guiding spatial layout, theme transformation, and placement principles as an adapted version of the DDM method in this project.

Phase 1: Site Analysis and Space Planning

The first step was to conduct an on-site survey of Longyuan Park to understand the movement patterns of visitors, determine suitable locations for installation, and analyze environmental conditions (see Figure 67-68).

Path Analysis: By studying the entrances and exits of the park and the internal paths, the installation form was designed to determine the space where the installation can naturally attract the audience without interfering with their movement.

Consideration of existing cultural elements in the park: Although there are many dragon-related sculptures and decorations in the park, the story of Tai represents a different cultural perspective. To distinguish it, my installation location was chosen to avoid the existing dense areas with dragon elements.

Environmental considerations: Analysis of the natural and built environment, such as lighting (the LED advertising screen between the two installations was used as a connection between the installations, displaying the poetry of the project story and conveying information), the distribution of vegetation that may affect the installation, the available structural support, and the location of equipment such as projectors.

Based on this analysis, I choose two contrasting locations that best represent the dual themes of Tai's" journey—"Guard and Prosper" in the dried waterway and "Drown and Sleep" in the large pool slightly above it. There is also an LED advertising screen on the path connecting the two. Because the whole installation is relatively abstract, I think I can use it to convey my poetry to the audience. This will serve as the audience's pre-knowledge or after-knowledge of the installation in my non-linear narrative, further arousing the audience's thinking. (see Figure 69).

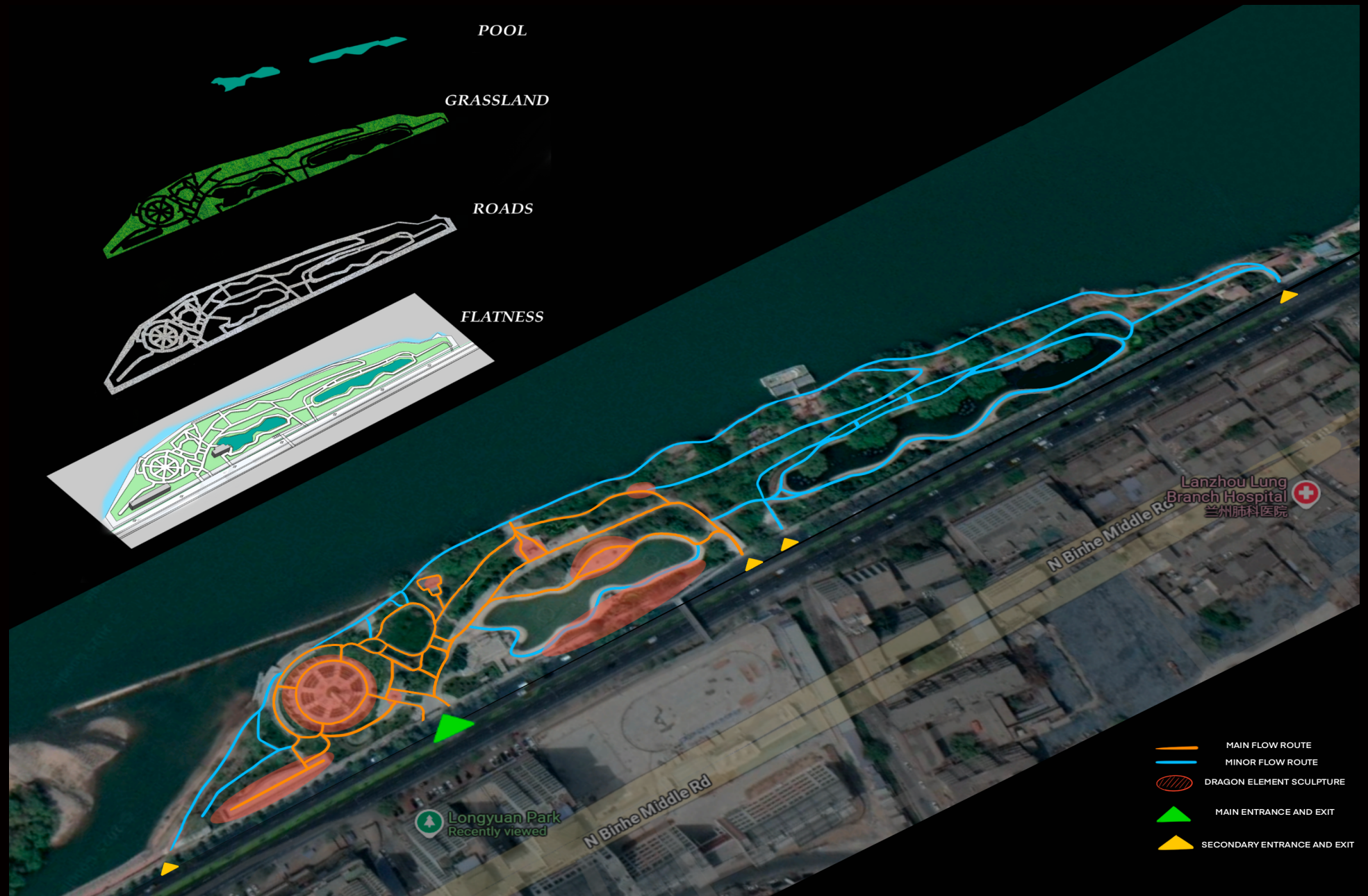


Figure 67
 Site Analysis of Longyuan Park 1. Sirui, C. (2025)



Figure 68
 Site Analysis of Longyuan Park 2. Sirui, C. (2025)

Dried Waterway-
"Guard and Prosper"



Pool-
"Drown and Sleep"

LED screen

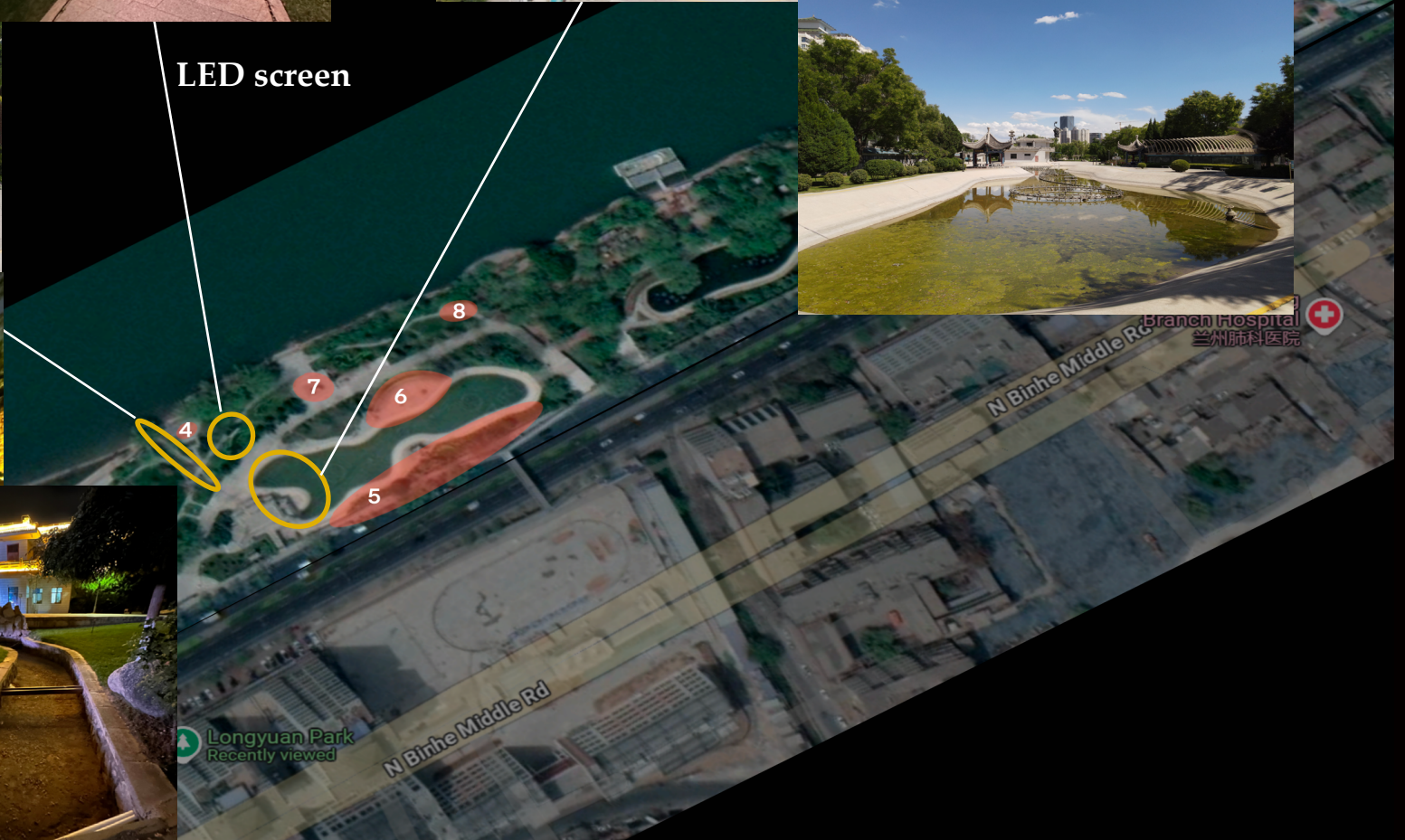


Figure 69
Site Analysis of Longyuan Park 3. Sirui, C. (2025)

Phase II: Conceptual Transformation - From Narrative to Visual Language

In order to transform Tai's story into a meaningful spatial experience, I extracted four core thematic keywords: Guard, Prosper, Drown, and Sleep. These concepts provided references for material selection, spatial layout, and audience experience. Installation 1 has been designed to detail and is the work that I have prototyped for this project. Installation 2 is an additional work that is completed to a planning stage.

Installation 1: Guard and Prosper

Art Form: Installation + Projection

Time: 7 to 10 pm, based on the sunset time in Lanzhou (Lanzhou Weather Forecast, n.d.).

Installation structure: arched frame + hanging fabric in the shape of stone forest + part of the river covered with mirror paper.

The whole installation is constructed with an arched PVC frame, inspired by the arc of dragon scales, symbolizing Tai's protective posture while providing good structural stability. The structure is erected on a path above the dry river, and the audience can walk through it from below and look up at the fabric and light and shadow in the space.

The fabric is hung on the top and both sides of the frame through transparent fishing lines and is stretched according to the height of different points so that the fabric shape simulates the mountain outline of the Yellow River Stone Forest. When the wind blows, the fabric flutters slightly, adding a sense of natural flow. In order to enhance the level and visual extension of the overall space, mirror paper is laid on the ground. When the projection passes over the fabric, its light and shadow produce a blurred and shaking reflection effect on the mirror, as if ripples are rippling on the water surface, symbolizing that Tai brings new life flow to the dry land.

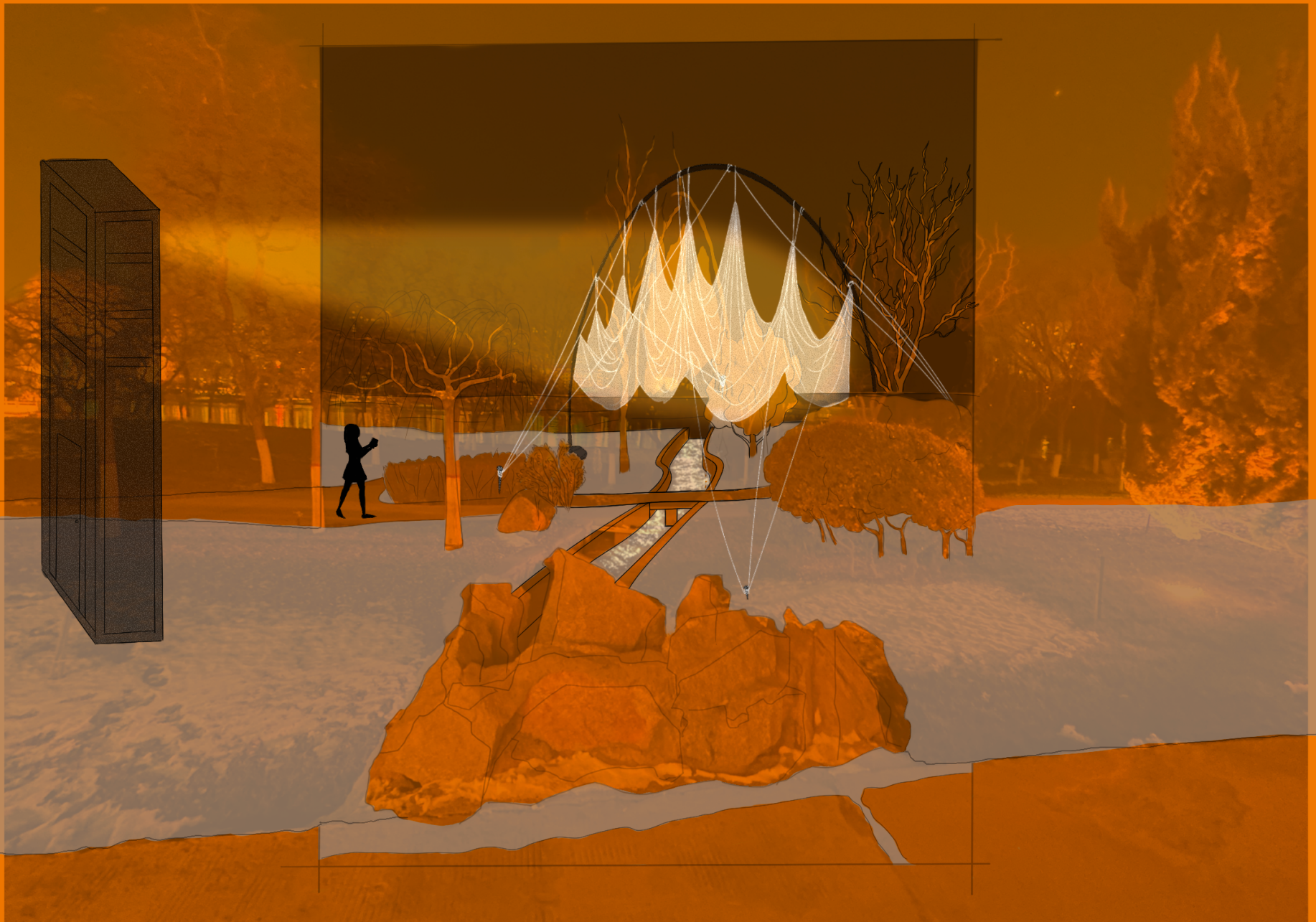


Figure 70
Installation sketch map. Sirui, C. (2025)

Material selection and testing

Frame material: hollow PVC pipes, buckle, plastic base (see figure 71-74)

Reasons for selection: light, flexible, easy to bend, easy to transport and build on-site, stable structure, and not easy to deform.

Frame and fabric size:

The prototype version of the formal installation (see Figure 75) was built in this project, which was about 1/3 the size of the formal installation. The structural proportion, fabric hanging logic, projection direction, and ground reflection effect were fully tested. Due to the test environment, transportation, and time constraints, the prototype did not use the same size as the formal installation, but it has effectively verified the structural stability, fabric shape control, and light effect (see Prototype section), providing a practical basis for the implementation of the subsequent size installation.



Figure 71-74
Installation materials. Sirui, C. (2025)

Prototype (1/3 size)	Formal (full size)
10 hollow PVC pipes: 70cm each	30 hollow PVC pipes: 70cm each
Structural height (arch height): approx. 2.3m	Structural height (arch height): approx. 6.9m
Structural span (width): approx. 4.5m	Structural span (width): approx. 13.3m
2 water-fillable bases, diameter 33cm, height 10cm	2 water-fillable bases, diameter 33cm, height 10cm
Several PVC connectors to join pipes	Several PVC connectors to join pipes
Fabric size: 5m × 1.5m (single piece)	Fabric size: 15m × 3m (single piece)

Figure 75
Installation Measurements. Sirui, C. (2025)



Figure 76
Outdoor Testing. Sirui, C. (2025)

Test: Test whether it is stable enough outdoors (See Figure 76).

When there's wind, the pvc frame will shake and falling down.

Material selection and testing

Cover fabric: translucent lightweight fabric.

It is used to simulate the shape of the Yellow River Stone Forest and has good light transmittance and a floating feeling (see Figure 77-82).

Comparing those materials, the chiffon material with the best performance between projection clarity and wind effect was selected (see Figure 83).

Suspension material: transparent fishing line.

The fishing line can provide good support, and the translucent color weakens the presence of the suspension, making it more immersive at night (see Figure 83)

Dry waterway paving material: mirror paper.

Paved on the waterway surface below the device, the reflection projection forms a water ripple visual effect (see Figure 84).



Figure 77-82
 Installation Fabric Testing. Sirui, C. (2025)



Figure 83
 Fishing Line and FabricTesting. Sirui, C. (2025)



Figure 84
 Mirror Paper Testing. Sirui, C. (2025)

Material selection and testing

Projection equipment planning: outdoor projector + high-position projection bracket

The installation structure is arched and diagonally spans the path of the dry river. In order to ensure that the projector throw completely covers the fabric and avoid the audience blocking the projection source when walking, the projector needs to be projected from the front of the device to the fabric surface. Therefore, I plan to set up a projection tower above the audience's line of sight and install the projection equipment at a height of about 8 meters to achieve the angle requirement of top-down and oblique projection (see Figure 70).

For the prototype version, due to the limitations of the venue and equipment, the projector will be set diagonally in front to ensure that the projection content can be seen clearly (see Figure 85).

This set up can reduce the audience's interference with the light path while enhancing the stability and clarity of the projection content on the fabric. The equipment will be equipped with remote control and safety brackets to facilitate nighttime operation and debugging and ensure safety and stability in open spaces (Hopgood, 2022).

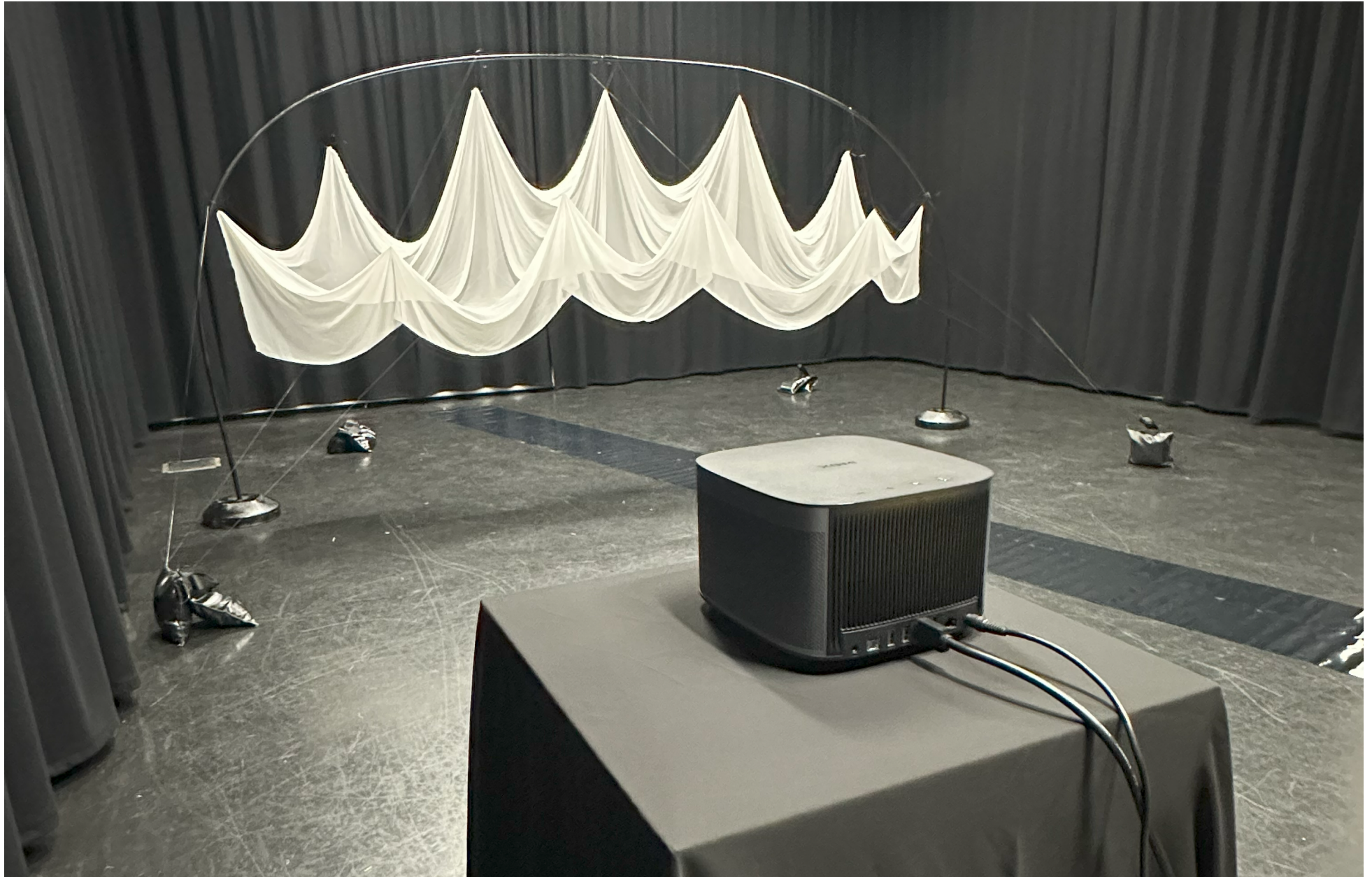


Figure 85
Projector Setting for Prototype. Sirui, C. (2025) 71

Potential Future Development

Installation 2 : "Drown and Sleep"

Current status description:

The installation is currently in the design planning stage and has not yet been fully prototyped. Due to time and resource constraints, only a small test experiment of the atomization equipment has been completed, and the location of the site and the projection path have been initially envisioned. If conditions permit in the future, it will be implemented as an important part of the further expansion of the project.

Art form: Projection + Water Mist

Time: 7pm to 10pm.

Installation structure: Fog floating area on the artificial pool + projection (figure planned location)

The installation is based on the large pool of Longyuan Park (figure), and the overall structural design revolves around the image of "sleeping" and "being submerged." Tai's figure will pass through the fog layer and the water surface through projection, gradually disappearing in the blur and light and shadow, symbolizing the disappearance of the Yellow River Stone Forest and the sinking of cultural memory.

The audience stands on the shore of the pool to watch, and the overlap of projection and mist forms a critical space between reality and dream. Unlike the arched structure of the first installation, this installation has no solid frame and relies on the reflection and atomization effect of the water and natural environment to create the projection surface.

Material selection and testing (under planning)

Projection equipment: outdoor short-throw projector

This projector enables projection at a low angle from the bank of the pool to between the water surface and the fog layer to create a floating feeling; it must have high brightness and be waterproof.

No field tests have been conducted yet, and it is only in the stage of equipment comparison and site angle analysis.

Atomization equipment: Ultrasonic atomizer (mini types) (see Figure 86)

The small size and high safety, suitable for hiding in poolside plants or camouflage devices to create continuous floating fog.

Test: Preliminary tests have been conducted in light-colored water tanks. The fog can form a soft and uniform surface, and the projection on the fog surface produces a blurred and diffused visual effect.

Fog container (planning): light-colored water tank/hidden water tank system

It is planned to use light-colored containers to enhance the visibility of fog at night and hide the equipment to avoid destroying the natural feeling of the scene.

Proposed Projection content :

The projection in this installation will show the figure of "Tai" entering from the outside, eventually sinking into the water, and disappearing between the fog layer and the water surface. Through the blurring, melting, and floating of the image, it symbolizes the process of the Yellow River Stone Forest being submerged and the cultural memory falling asleep. The interaction of light and shadow and fog guides the audience to feel "unable to see clearly" and "unable to grasp" (see Figure 87) and stimulates emotional resonance with the disappearance of culture.

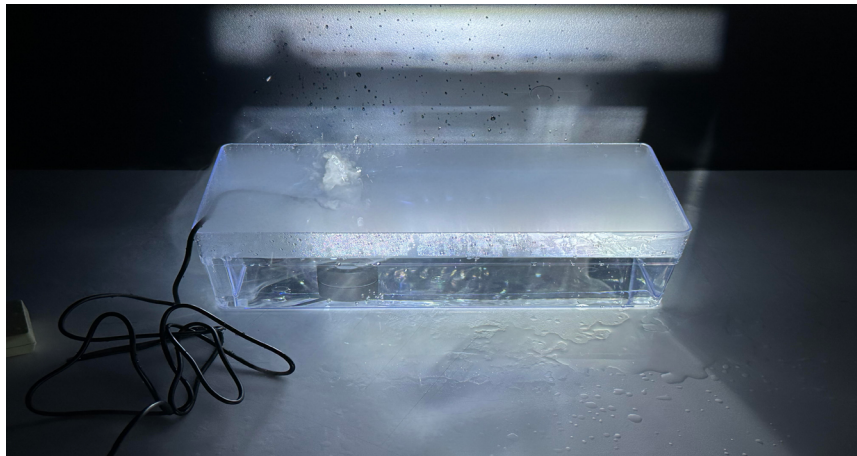


Figure 86
Ultrasonic Atomizer and Fog. Sirui, C. (2025)

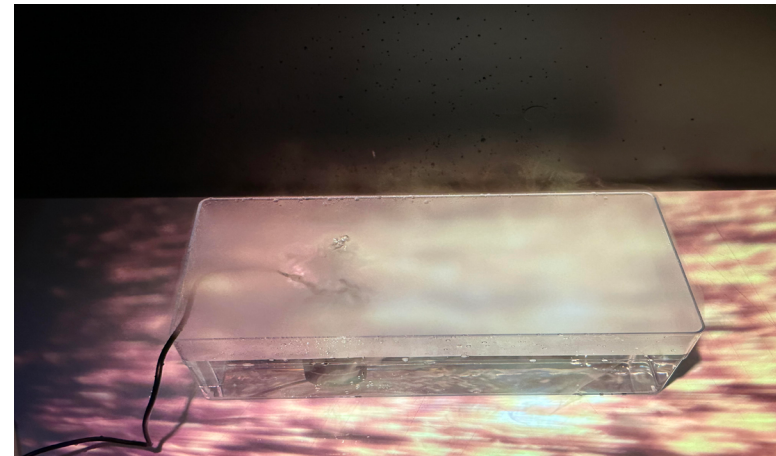


Figure 87
Fog and Projection. Sirui, C. (2025)

Phase 3: Audience Experience and Spatial Interaction

Poetry on LED billboard: A nearby LED billboard displays the poem text, acting as a narrative bridge between the two installations. Regardless of which station a visitor encounters first, this central element provides an interpretive anchor, creating a continuous loop (figure) between the two experiences. This also serves as preknowledge or afterknowledge to better increase the viewer's understanding of the work, especially the abstract imagery.

Spatial contrast and emotional shift: Visitors move from a vibrant and dynamic dried waterway scene (Tai's presence brings prosperity) to a soft and reflective pool (Tai is lost in time). This shift highlights the inevitable cycle of cultural transformation and memory fading.

With the spatial structure and material configuration in place, the following section focuses on the visual content design—specifically, how projection, imagery, and sound are used to embody the abstract form of "Tai" and evoke the emotional and cultural resonance of the Yellow River Stone Forest.



Figure 88
LED Screen. Sirui, C. (2025)

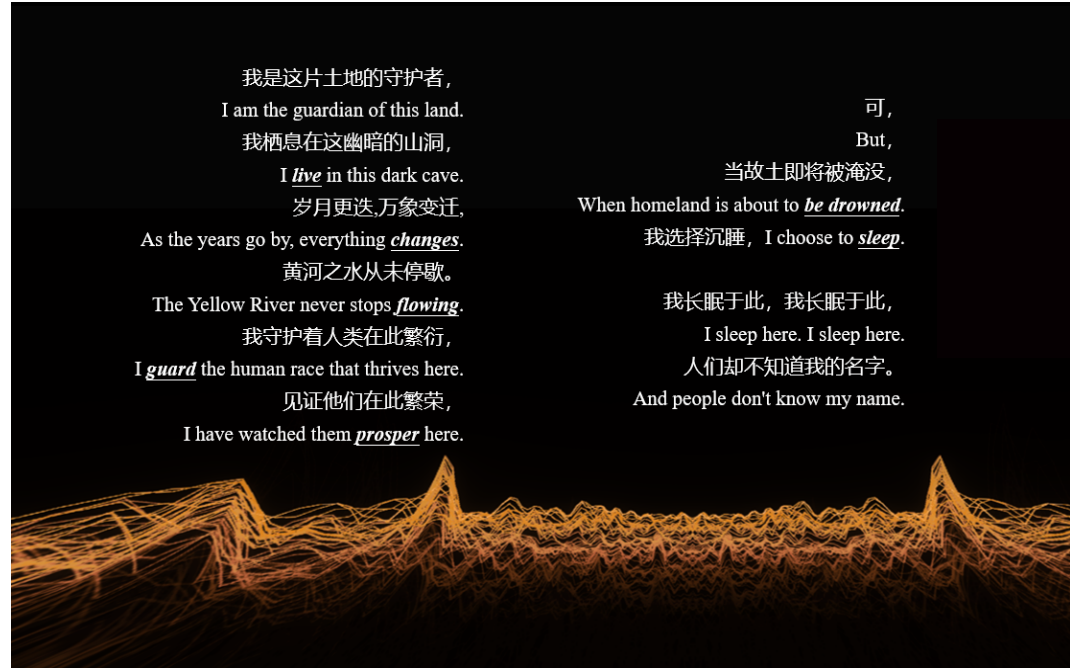


Figure 89
Poetic. Sirui, C. (2025)

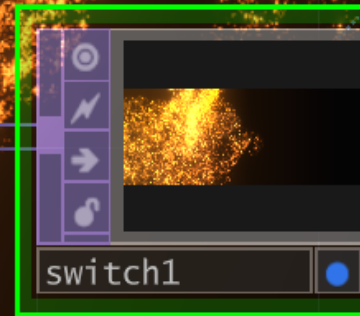
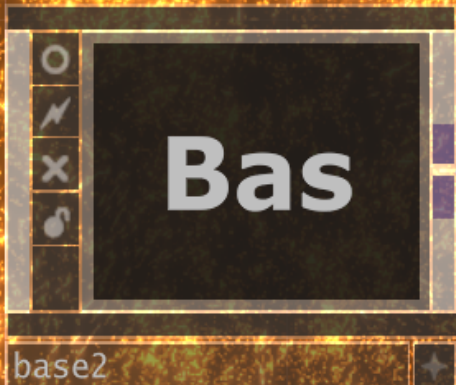


Figure 90
Touch Designer Workspace Screenshot. Sirui, C. (2025)

VISUAL CONTENT DESIGN

The visual content of this project centers on the representation of “Tai,” combining hand-drawn imagery, photos of the YRSF, field-recorded natural sounds, and local cultural motifs to create a non-literal visual narrative through projection.

Although the two installations differ in expression and technique, they are unified by shared visual language and source materials, jointly constructing a symbolic embodiment of “Tai” and the cultural memory of the Yellow River Stone Forest.

I found inspiration in the rock formations of the Yellow River Stone Forest. One particular natural rock outline resembled a dragon, which I transformed into the foundational image of “Tai” through drawing (see Figure 91). This visual became the starting point for the construction of Tai, symbolizing a guardian born from nature, living and fading alongside the Stone Forest. At the same time, I collected the sounds of the flowing Yellow River and the wind within the Stone Forest. These audio materials were used in the first installations and translated into different visual expressions through distinct technical processes.

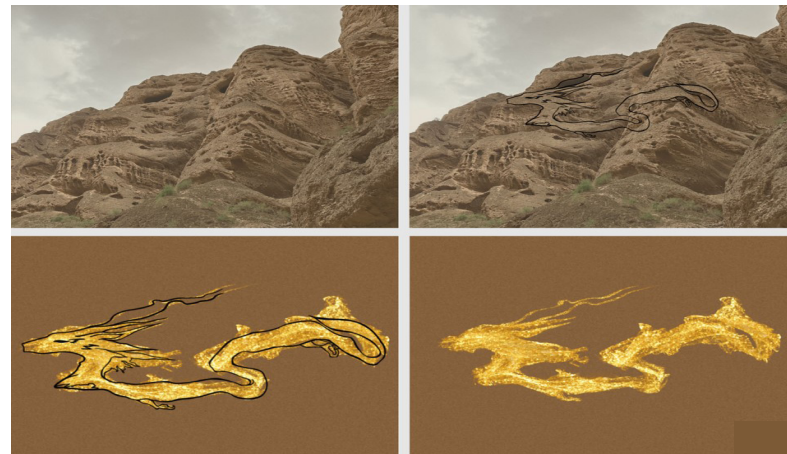


Figure 91
Sketch drawing. Sirui, C.

Installation One: Abstract Visual—Flowing Scales and Cultural Transformation

The visual design of this installation consists of two main components: first, the dynamic flow of “Tai’s” scales; and second, the transformation of those visuals into a symbolic expression of Baiyin’s intangible cultural heritage—the molten iron firework performance (Da Tie Hua). The outcome is a looped video, but the movements are driven by audio of the Yellow River, ensuring spatial responsiveness and an intermedia experience for viewers.

Visual Flow 1: Scale Movement

Element Extraction (Image Source)

Inspired by a rock formation resembling a dragon in the Yellow River Stone Forest, this image was abstracted into the prototype of "Tai" (see Figure 91).

The geological features of the Yellow River Stone Forest present rhythmic, layered textures that closely resemble the scales of a mythical creature. In the installation design, I translated these textural cues into a visual language that conveys motion, continuity, and transformation. A specific rock formation within the Stone Forest that resembles a dragon became the initial reference for modeling “Tai,” forming the basis of the scale unit’s design.

1. 1 3D Modeling

Using the above reference, I created a repeatable simple scale model in Blender, which could help me develop the more complex visuals.

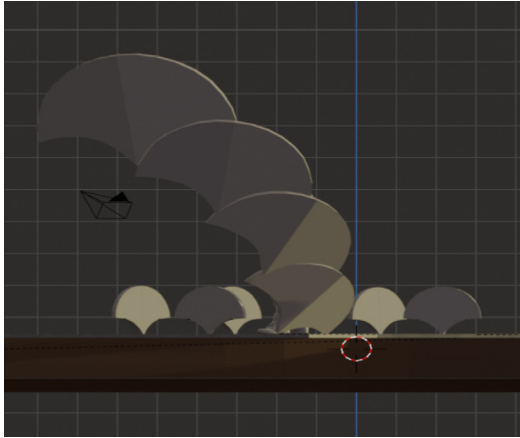


Figure 92
Dragon Scale. Sirui, C. (2025)

1.2 Sound Parameter Extraction

Imported river sound recordings into Touch Designer and extracted frequency and volume data.

1.3 Color, Frequency Design and Importing Model into TouchDesigner

The color and main movement changes of the work are dominated by the Noise of the TOP element, and the value of the Noise is driven by the audio.

The scale model was brought into TD via Geo Instancing to generate real-time particle-based structures. Bound to sound parameters to achieve flowing, rotating, and clustering movement.

1.4 Visual Adjustment

Adjusted color, transparency, and movement style to match the installation fabric and projection surface.

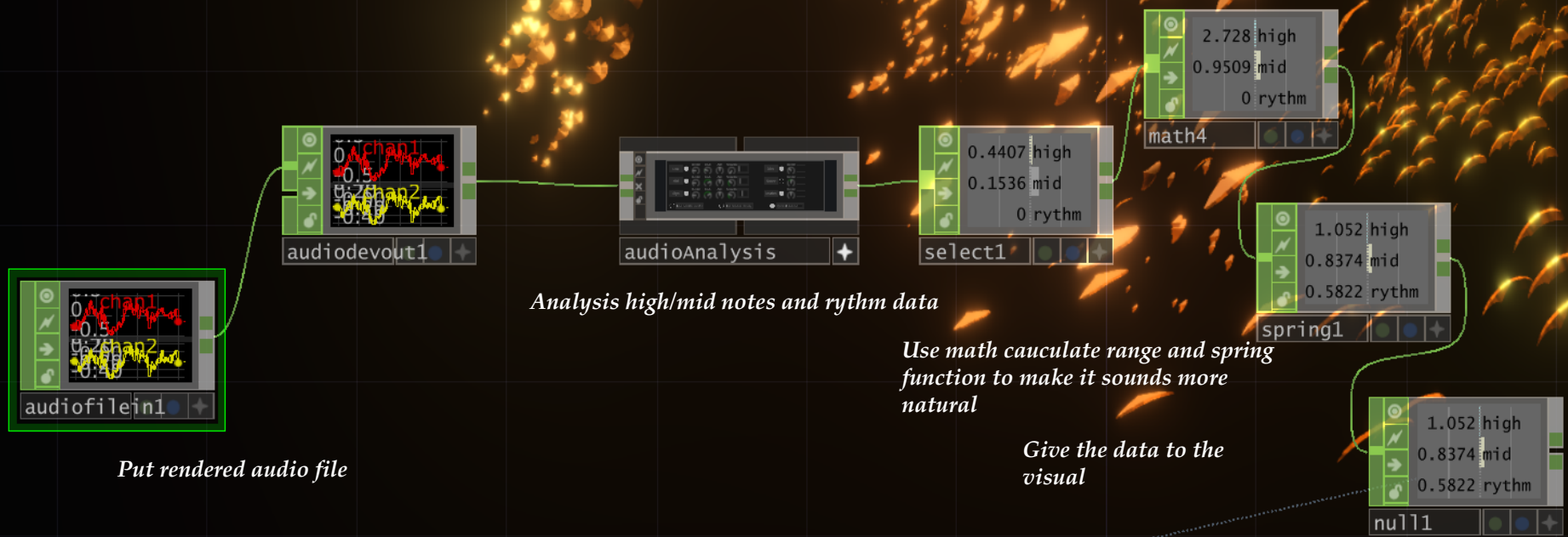
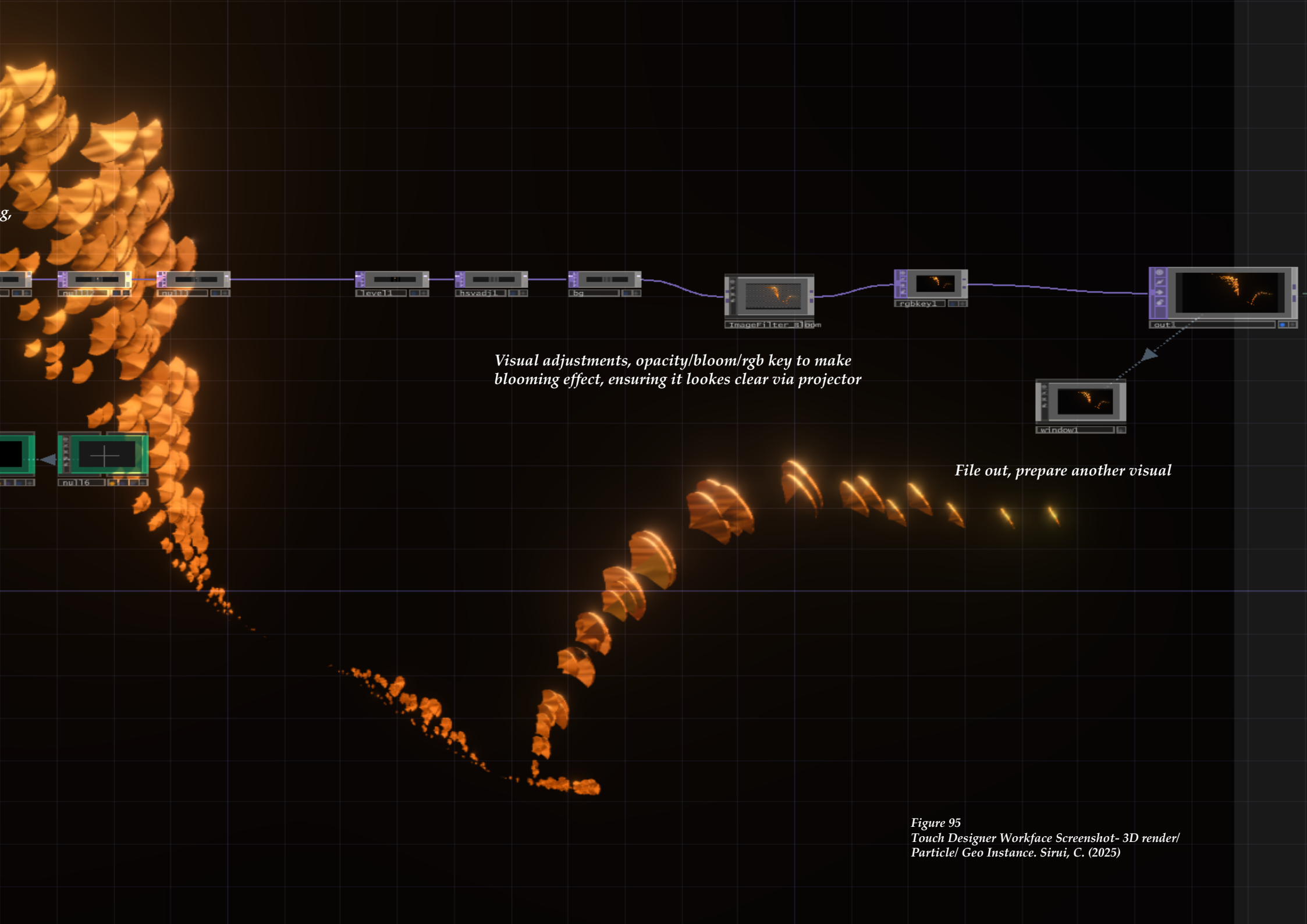


Figure 93
Touch Designer Workface Screenshot- Audio Analysis.
Sirui, C. (2025)





Visual adjustments, opacity/bloom/rgb key to make blooming effect, ensuring it looks clear via projector

File out, prepare another visual

*Figure 95
Touch Designer Workface Screenshot- 3D render/
Particle/ Geo Instance. Sirui, C. (2025)*

Visual Flow 2: Cultural Morphing—Transforming into Traditional Iron Flower

1.1 Cultural Research and Shape Analysis

In the second phase of the visual development, I turned to Baiyin's intangible cultural heritage—the molten iron firework performance known as Da Tie Hua. This traditional practice involves splashing molten iron into the air, creating bursts of glowing sparks that are both fleeting and powerful. The ephemeral brilliance of this act serves as a metaphor for vitality and prosperity, providing a rich source of visual and cultural inspiration for the installation.

To analyze the visual language of this performance, I studied several reference videos and extracted key motion patterns and spark shapes. These were then translated into abstract sketches and form breakdowns to explore their potential integration into the installation's visual narrative.



*Figure 96
Iron Flower Celebrate the New Year. Baiyin City
Government. (n.d.)*

Practices showing the morphological analysis of molten iron fireworks (Da Tie Hua). These visuals are based on reference footage and depict three main stages: the upward splash of molten iron, the explosion of sparks in the air, and their gradual dissipation. By examining the shape, direction, and density of the sparks, I identified key visual characteristics to inform the transition from flowing scales to a firework-inspired explosion in the projection design. However this practice is more like firework rather than Iron Flower, so I have made some changes into next step.

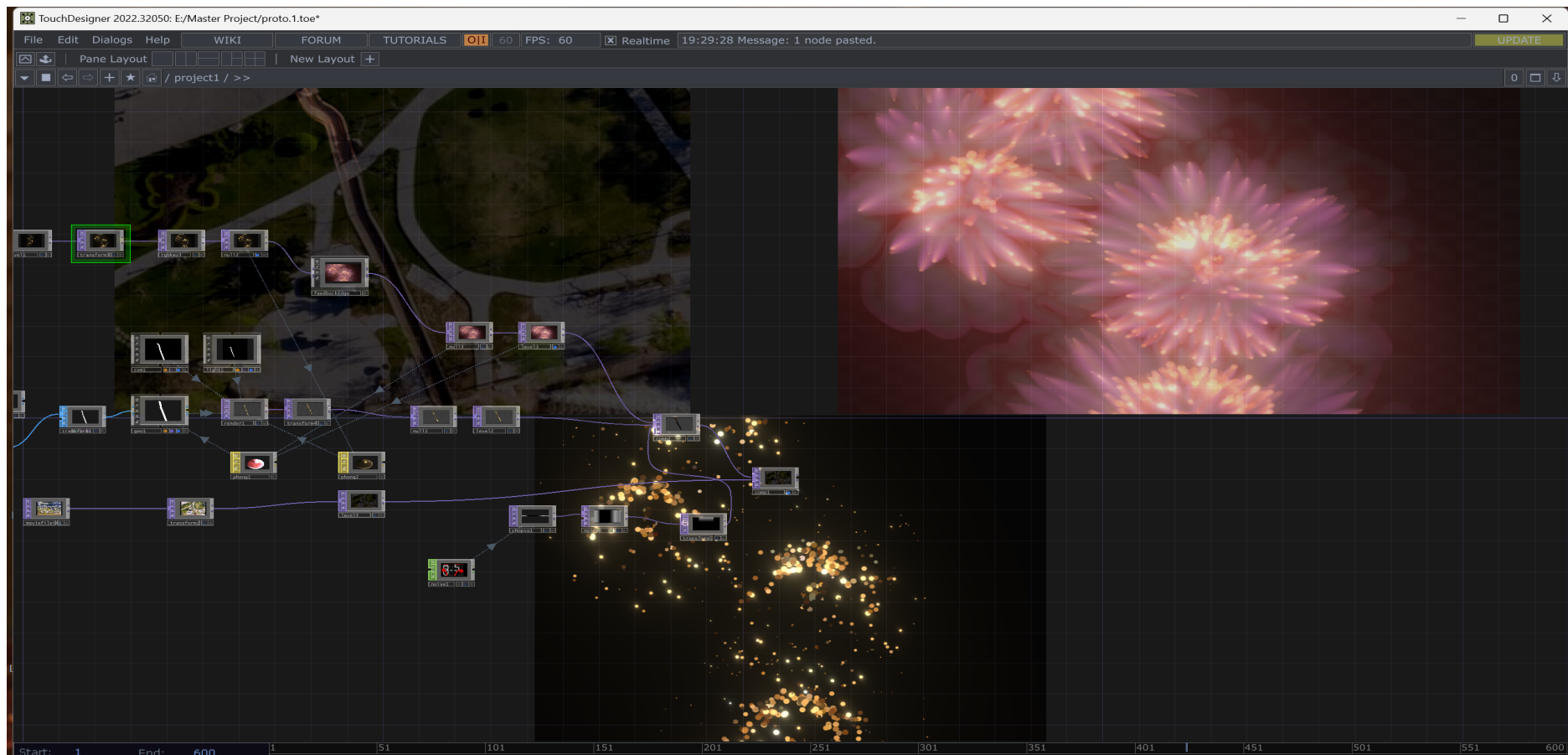


Figure 97
Iron Flower Simulation in TouchDesigner.
Sirui, C. (2025)

1.2 3D Structure and Particle System Design

In TD, I created a particle system using position, velocity, and alpha blending to simulate explosive bursts.

Used a color palette of gold and orange-red to evoke high-temperature sparks.

This is a test of the burst shape of the Iron Flower (see Figure).

Although it has a sense of blooming, the action is too simple to be well combined with the subsequent dragon scales to form the visual language I want, so I decided to continue the production method of the dragon scales. Use noise and audio to drive the frequency, plus the particle system and GEO Instance. The only difference is that the iron flower only uses a sphere, and no self-modeling. Because after analysis, the iron flower needs to be raised high at the moment it is hit, which will form an arc. In this way, using a sphere as a particle simulation is more three-dimensional than simple lines.

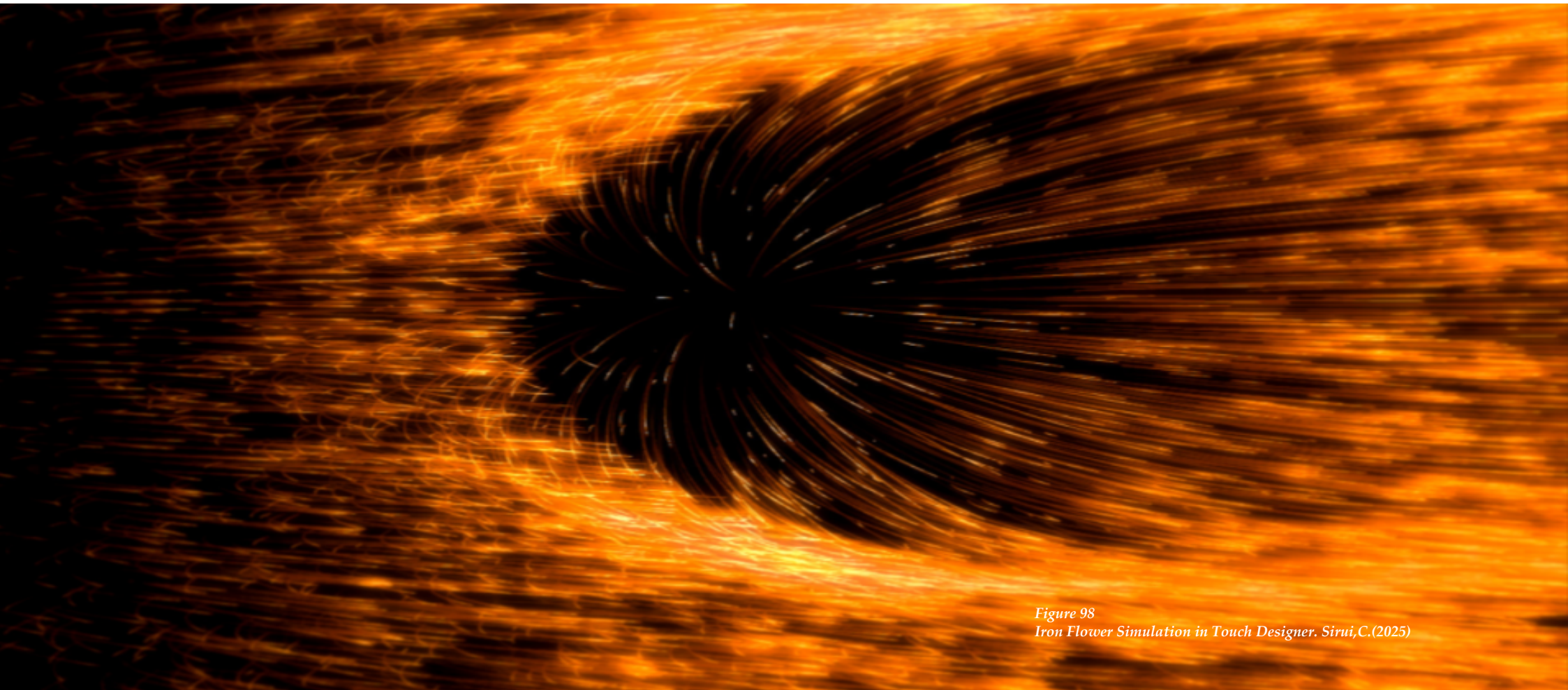


Figure 98
Iron Flower Simulation in Touch Designer. Sirui, C. (2025)

1.3 Geo Instance Integration

Combined with the flowing scales on the same TD platform.
Sound-driven transitions were defined to trigger the shift at audio peaks.



Figure 99
Iron Flower Simulation in Touch Designer Final version. Sirui,C.
(2025)

Integrated Visual Flow: Transition Between Flow and Transformation

1.1 Visual Merging – SWITCH and Rhythm Control

To achieve a fluid transition between the two visual states—flowing dragon scales and molten iron fireworks—I used the Switch operator in TouchDesigner to blend both outputs within the same network. Rather than triggering the transformation through sound, a custom control parameter was used to manually adjust the switch index, enabling a smooth and gradual morphing effect. During this transition, the scale particles progressively blur, stretch, and dissolve into the form of molten iron sparks. The process mimics an internal rhythmic flow, visually echoing the symbolic transformation from natural endurance to cultural radiance.

1.2 Video Recording and Post-Production

Exported the full sequence as video; refined contrast and brightness for projection clarity.

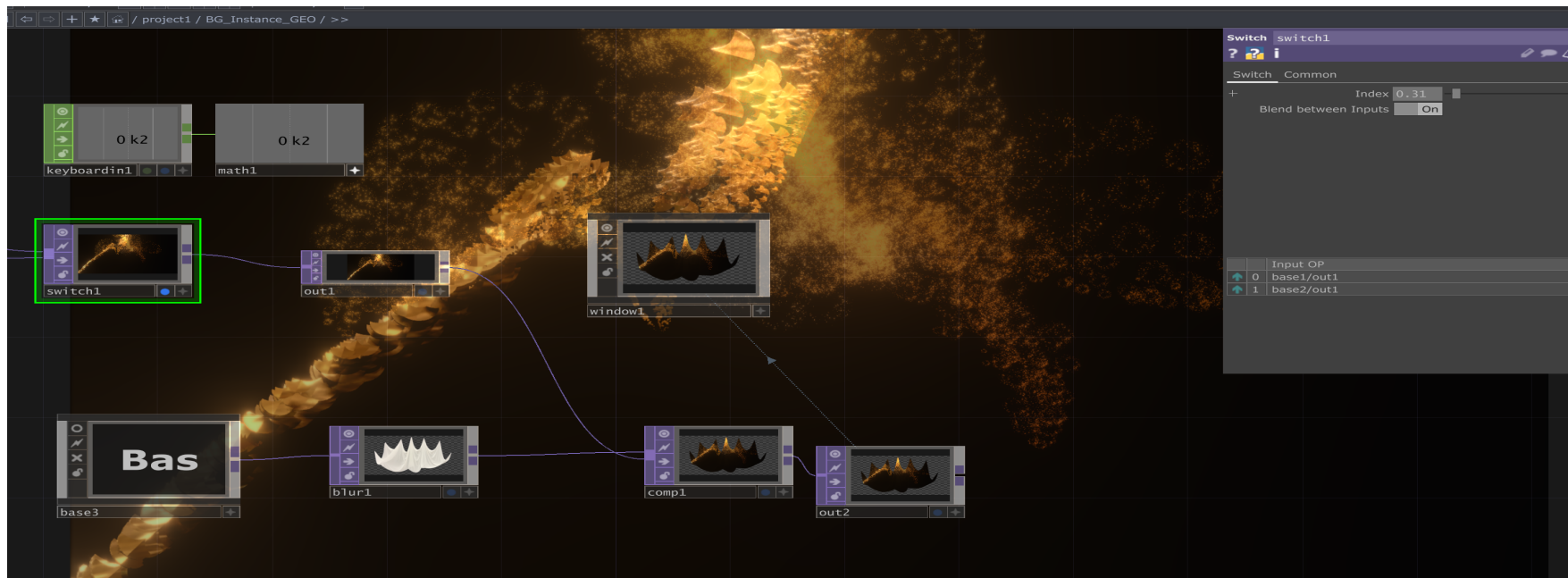


Figure 100
Switch Top for Smooth Transformation. Sirui,C.(2025)

1.3 Mapping and Projection Testing

Mapped the visuals to the fabric structure and tested its interplay with the mirrored paper below.

(Figure: projection on fabric + reflective surface test images)



*Figure 101-102
Projection Testing and Mapping. Sirui, C.(2025)*

PROTOTYPE

The prototype development of this project focused on the “Guard and Prosper” installation. It progressed through small-scale modeling, material and structural testing, and visual experimentation, ultimately forming a clear and systematic process of iteration. The development of the physical structure and the visual design were not separate stages but rather informed each other throughout the process. The physical structure influenced projection strategy, while visual testing revealed structural limitations and opportunities for improvement. Together, they evolved to shape a cohesive and site-specific experience.

Phase 1: Conceptual Exploration

The first prototype was a model approximately 50 cm tall, consisting of a mosquito-net-like frame with a soft, transparent tube bent into a curve at the top. This model was used to explore fabric suspension angles and shape formation. While not structurally identical to the final version, it revealed how pulling the fabric from multiple directions could create a form reminiscent of mountainous terrain.

(see Figure 103)

Phase 2: Scaled Structure and Audience Simulation

After acquiring the core materials, I constructed a 1:3 scale prototype using a PVC arch and full-length fabric. To help viewers intuitively grasp the scale of the final work, I created a 53 cm tall silhouette figure based on my mother’s height (approx. 160 cm), representing a visitor standing within the final piece.

(see Figure 104 and 105)

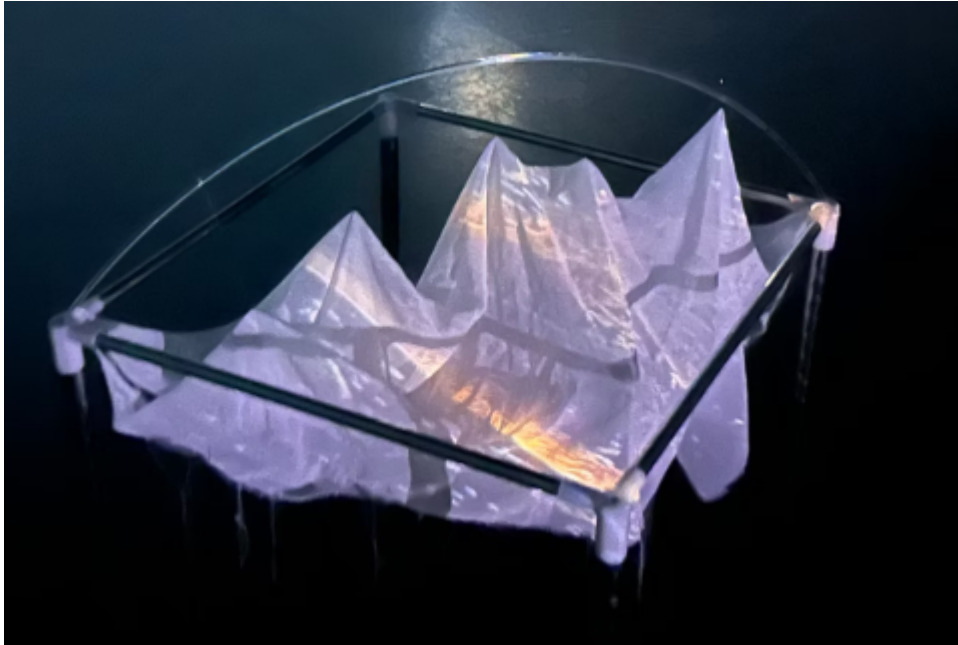


Figure 103
Small-scale prototype structure: curved pipe at top and suspended fabric behavior. Sirui,C.(2025)

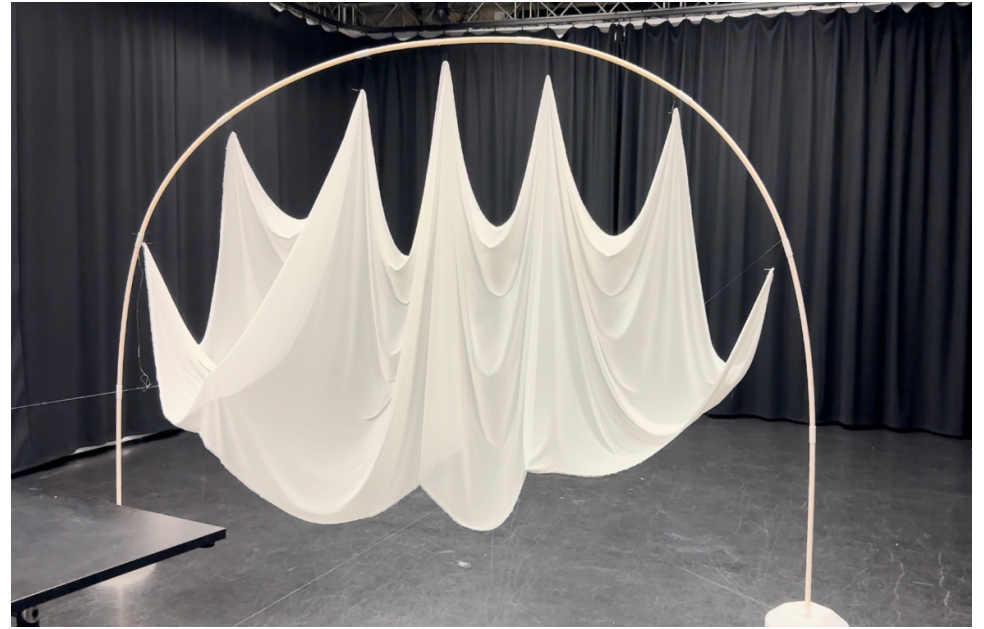


Figure 104
1/3 Size installation first test. Sirui,C.(2025)



Figure 105
Silhouette figure with structure: simulating viewer scale and passage. Sirui,C.(2025)

Phase 3: Material Testing and Structural Issues

I compared several types of lightweight translucent fabric and selected white chiffon, which demonstrated excellent projection clarity, soft diffusion, and graceful movement in airflow. However, tests revealed that the PVC arch swayed significantly both indoors and outdoors, especially in wind-simulated environments, suggesting inadequate structural stability.



*Figure 106-107
Fabric comparison test: performance under projection. Sirui,C.
(2025)*

Phase 4: Structural Reinforcement

To address the instability, I introduced a guy wire system(see figure 108-109) to strengthen the framework. Four additional anchor points were added to the fabric's edges, extended outward using transparent fishing line, and secured to the ground with stakes. This solution improved wind resistance and enhanced the spatial definition of the fabric, giving it a topography inspired by the Yellow River Stone Forest.

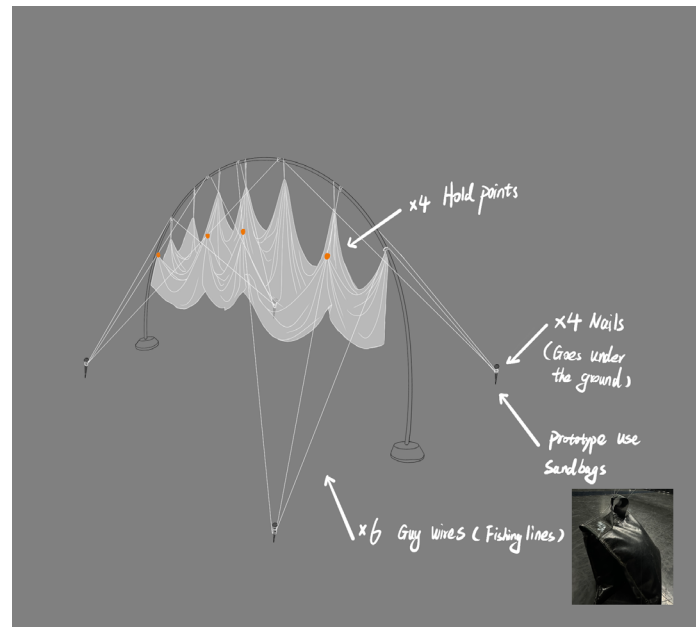


Figure 108-109
Guy Wire structure sketch: anchoring direction and fixing strategy. Sirui,C.(2025)

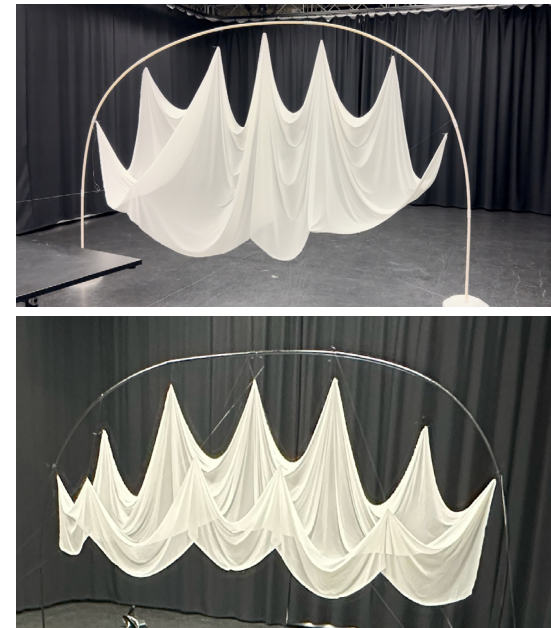
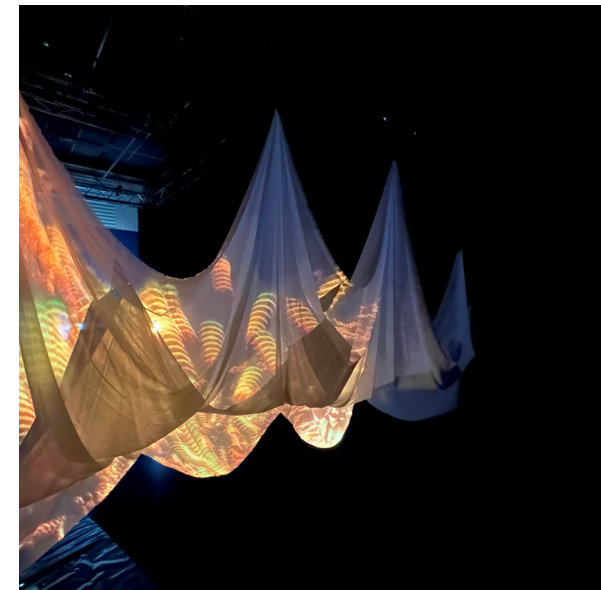
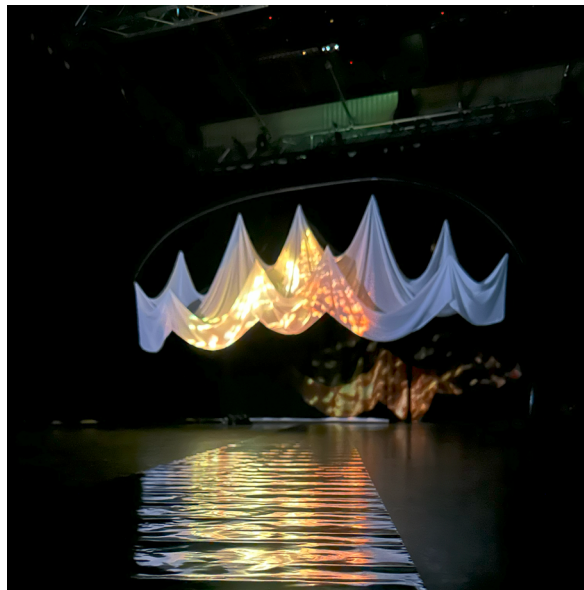


Figure 110
Before and After frame comparison. Sirui,C.(2025)

Phase 5: Visual Testing and Adjustments

Projection and structural testing proceeded in parallel. Nighttime tests indoors showed that the chiffon fabric effectively diffused light while maintaining clarity. When a mirrored surface was placed underneath, a blurred, ripple-like reflection appeared on the ground, echoing the idea of flowing water and reinforcing the thematic symbolism of Tai.

However, without precise mapping, the projection displayed visible black borders. I recorded the suspension points and began preparing for a mapped projection aligned with the structure.



*Figure 111-113
Projection and mirror surface test: interaction between cloth
and reflection. Sirui,C.(2025)*

Phase 6: Shift from Real-Time Generation to Pre-Rendered Video

Originally, the visuals were intended to be generated in real-time using TouchDesigner, with sound-responsive particle systems. However, the randomized movement of these elements proved difficult to control in terms of spatial and temporal precision. To ensure proper alignment with the structure, I decided to record the visuals as video, then edit and loop the sequences for projection and mapping.

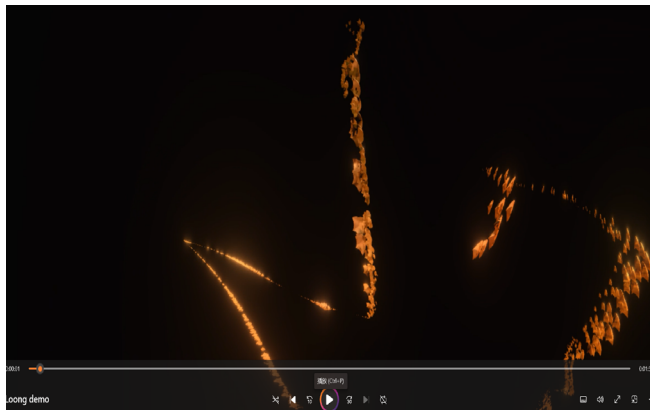


Figure 114
Video exported. Sirui, C. (2025)

Phase 7: Audio Redesign and Emotional Expression

Initially, I used field recordings of Yellow River water to drive visual parameters, but this alone lacked emotional depth. On my supervisor's suggestion, I used Adobe Audition to remix the water sounds into layered tones resembling dragon roars, adding wind recordings from the Stone Forest to enrich the atmosphere. Varying pitches were used to represent Tai's emotional states—movement, watchfulness, and eventual slumber.

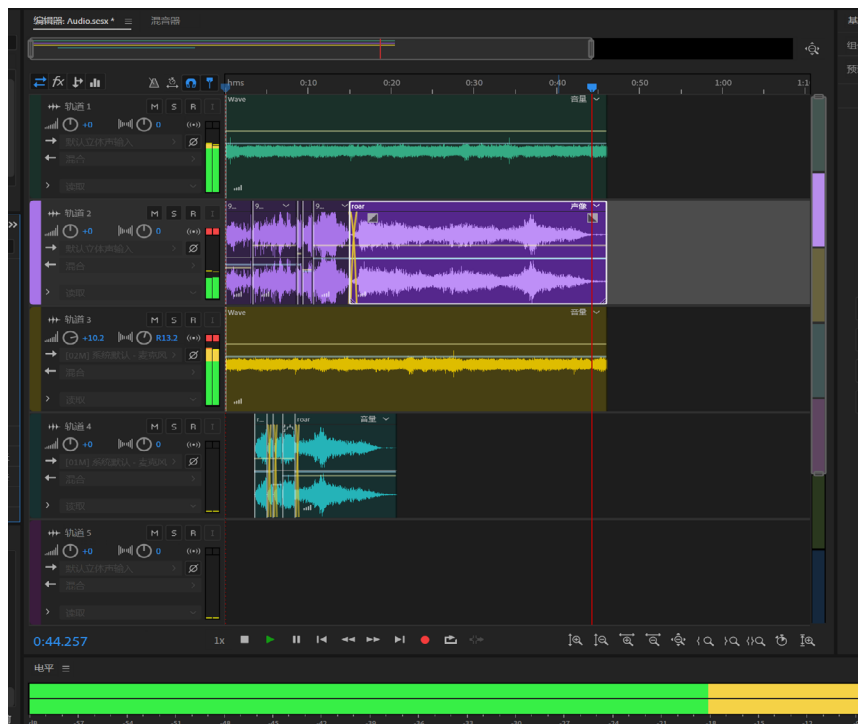


Figure 115
Audition editing view: multi-track remixing and pitch layering.
Sirui,C.(2025)

Conclusion

The iterative process of prototype development was not only a technical experiment but a conceptual negotiation between structure, sound, and image. Testing revealed and resolved key issues in stability and clarity, while visual and auditory exploration expanded the expressive capacity of the work. The structure and visuals were developed together, continuously informing and refining each other to shape a coherent intermedia, site-specific installation. This prototype phase laid a strong foundation for final implementation in both physical and emotional dimensions.

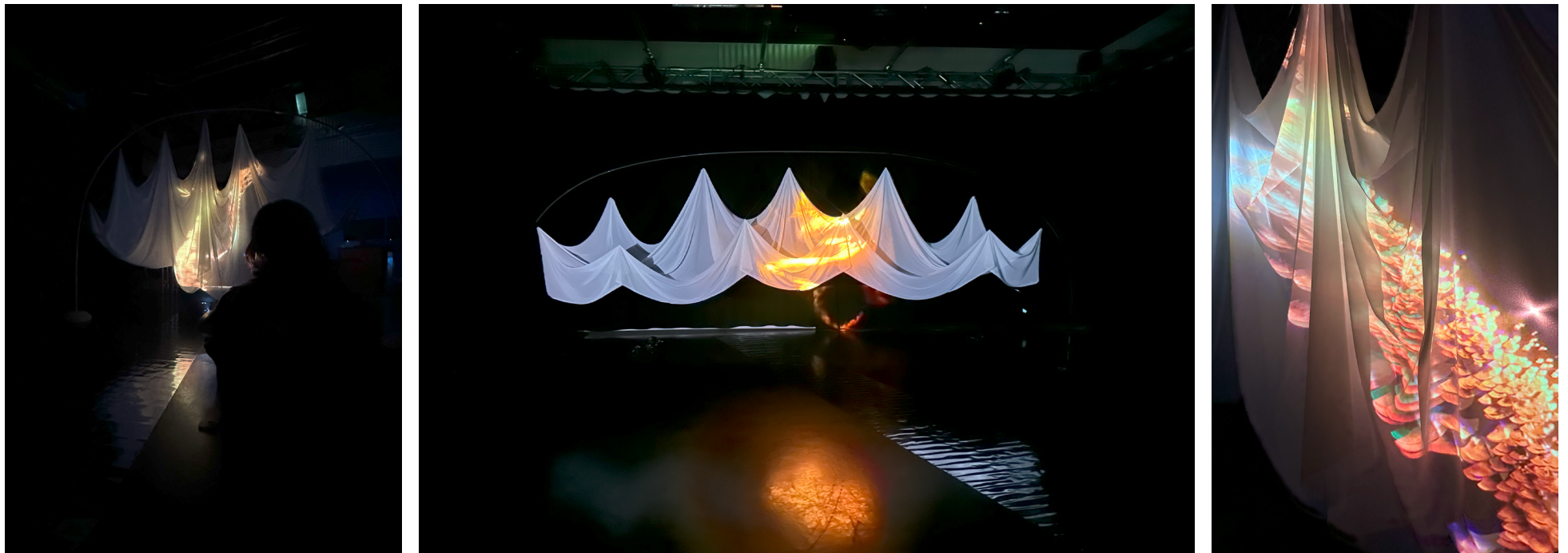


Figure 116-118
Testing visuals with audience. Sirui,C.(2025)

CONCLUSION

This project, *Resonance*, aims to create the emotional resonance and cultural recognition of the local community in Lanzhou on the Yellow River Stone Forest site-specific intermedia installation art. Through this research process, I carried out site analysis, material experimentation, and prototyping to generate visual and sound content that addresses the research question "How to trigger the community's emotional connection with the Yellow River Stone Forest through intermedia site-specific installations?"

In the creative process, I used the symbolic dragon-shaped image of "Tai" as a narrative carrier to guide the audience to reconstruct local identity from the natural form and legendary culture of the Yellow River Stone Forest. Installation 1 combines an arched structure, fabric, mirror paper, and projection content to form a visual and aural spatial experience. The audience can walk under the installation and "meet" the sleeping guardian "Tai" in the space through the interaction of translucent fabric projection, ground reflection, and ambient sound, thereby establishing a more emotional connection with the Yellow River Stone Forest.

This project uses DDM (Disruptive Design Method) as a methodological framework and constructs a design process in three stages: landscaping, mining, and building. In the Landscaping stage, I confirmed the urgency of the reality that this project needs to respond to by investigating the ecological crisis and cultural context of the Yellow River Stone Forest; in the Mining stage, I refined the visual language and emotional tone of the installation through material testing, visual analysis, and sound sampling; in the Building stage, I transformed the design into an implementable prototype and continuously optimized the expression strategy through structural testing and projection experiments. This method not only allowed me to establish a clear design logic in structure but also allowed me to always take "resonance" as the core orientation of design rather than the information presentation itself.

At the same time, the design exploration in the project also reflects the continuous negotiation between artistic language and technical strategies. For example, the visual content was originally designed to be generated by real-time sound drive, but in actual testing, because the particle movement could not accurately control the time and position, I converted the generated content into video playback to make it more in line with the requirements of structure and projection mapping. The sound part has also undergone a transformation from "real environment sampling" to "emotional sound sculpture": through Audition remix, the original sound of water flow is transformed into a more symbolic dragon roar, making it easier for the audience to enter the spiritual space of "Tai" in terms of senses.

This project provides a design idea with "local cultural emotions" as the core in the practice of installation art, especially in the issue of heritage protection. Compared with the traditional way of information communication, this installation attempts to arouse the audience's active participation in the "experience"—through the interweaving of sound, light, shadow, and materials, the audience's body becomes a container for narrative. This method provides a symbolic and spatially present expression path for future designers and artists when dealing with disappearing cultural or ecological issues.

Although this project has completed prototype testing and the design of a display strategy, there is still scope for further development to complement the installation work.

Firstly, the second installation—representing the stage of Tai's sleep—is still in the planning phase. Its prototype and visual testing have not yet been completed, and the spatial expression of "sinking into the water and sleeping" remains at the stage of material collection and form modelling. Secondly, due to limitations in time and resources, the current sound experience uses a single-track setup. In future iterations, introducing multi-point or directional sound systems could greatly improve the sense of immersion.

In addition, the current interactive mode is non-real-time—audiences can move freely through the space, but they cannot actively affect the content. Adding real-time feedback mechanisms (such as sound or motion response) could allow deeper audience participation and emotional connection. The project has not yet included formal community feedback. If future exhibitions can take place in public spaces and collect responses from local audiences, these insights will offer stronger support for the research outcomes.

While this project currently focuses on two installations representing prosper and sleep, there is room for additional site-specific works that continue to explore the layered emotional and cultural relationship between the community and the Yellow River Stone Forest.

In summary, *Resonance* is not only an artistic expression practice about the Yellow River Stone Forest but also a design exploration that interweaves intermedia art, field strategy, and community emotions. It responds to a broader question: When local culture is gradually marginalized in urban development, can design serve as a new "cultural awakening" mechanism? I hope that the methods and expression paths explored in this project can provide valuable references and extension space for future design practices facing local culture, ecological crisis, and social resonance.

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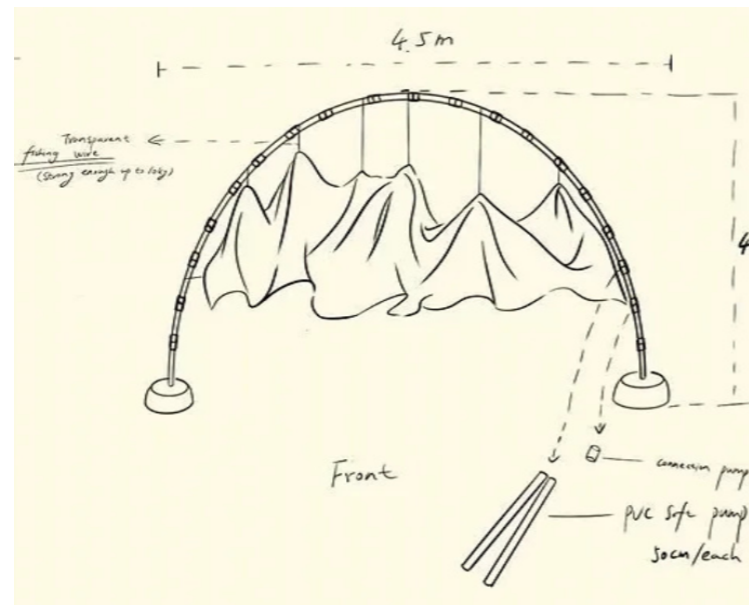
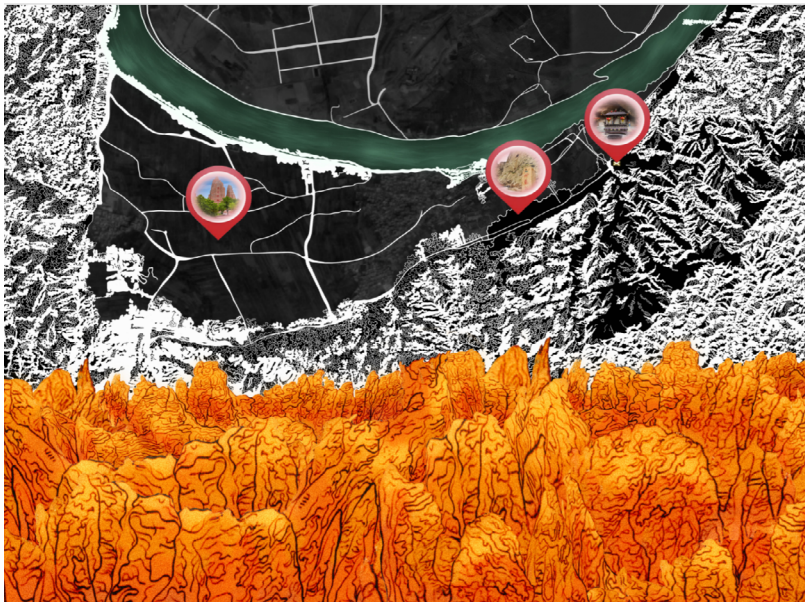
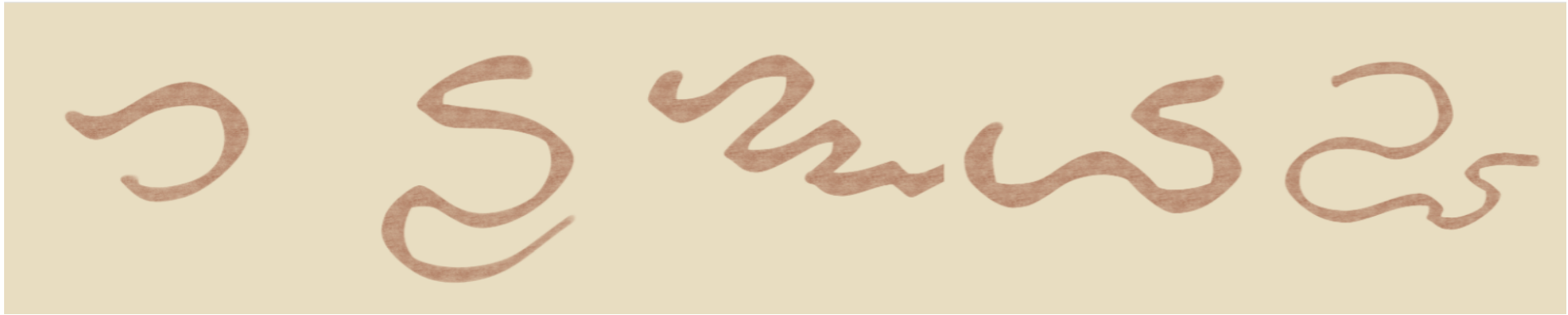
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APPENDIX

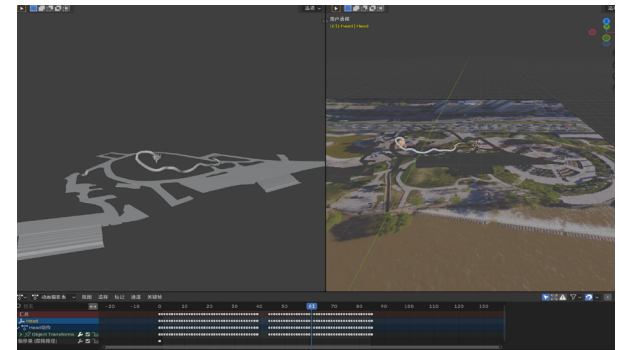
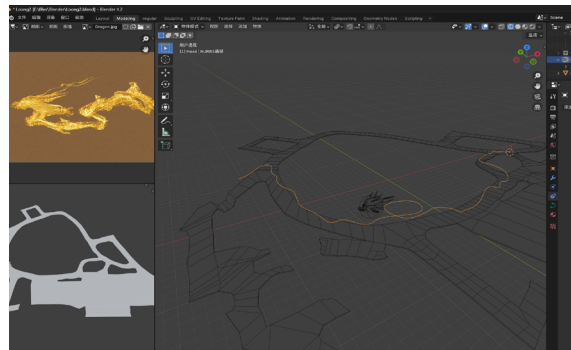
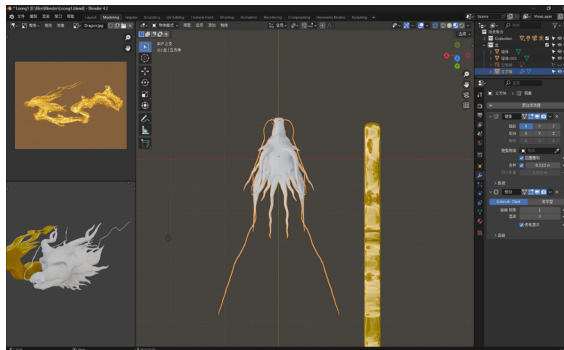
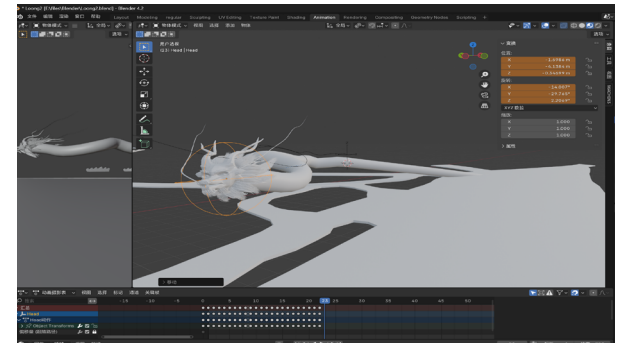
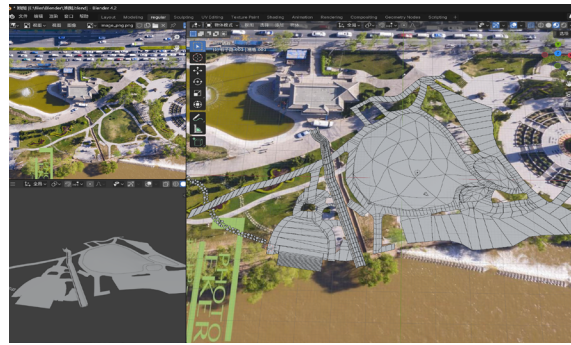
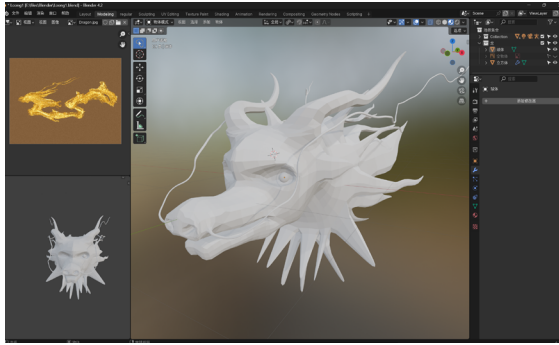
A: Sketches and Hand Drawings

Postures of Dragon, Site map of the YRSF, Installation sketch

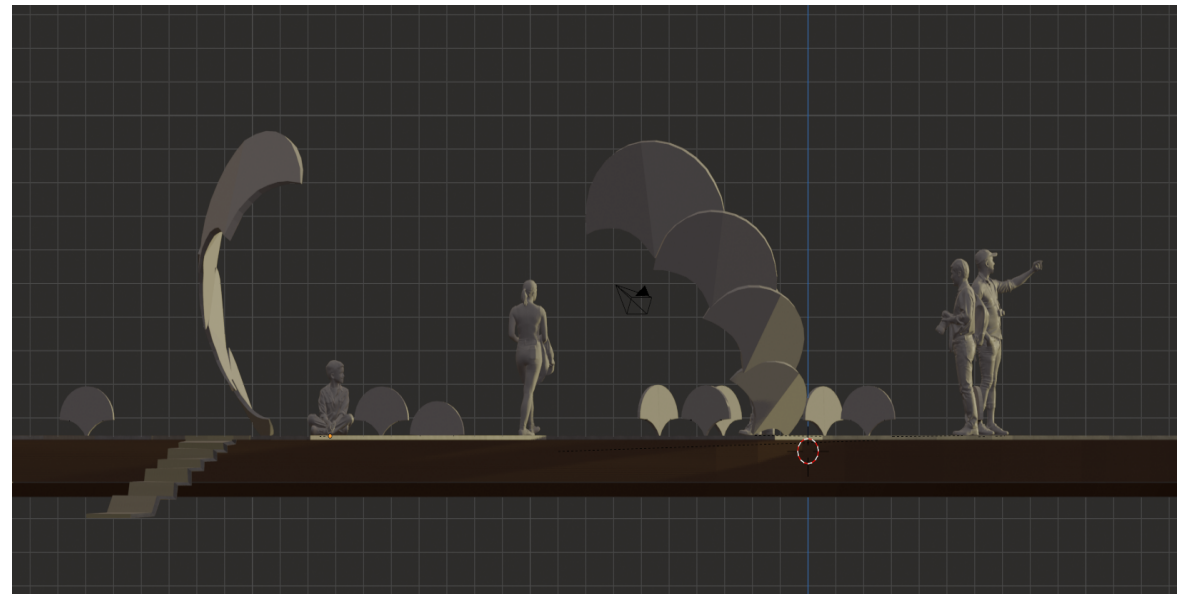
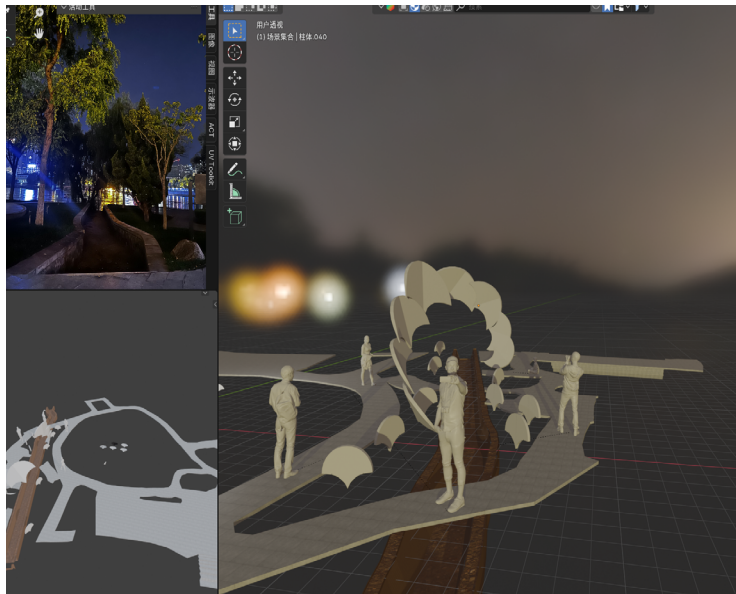


B: 3D Modeling for Visual

Modeling of Tai, Longyuan Park and Animation testing

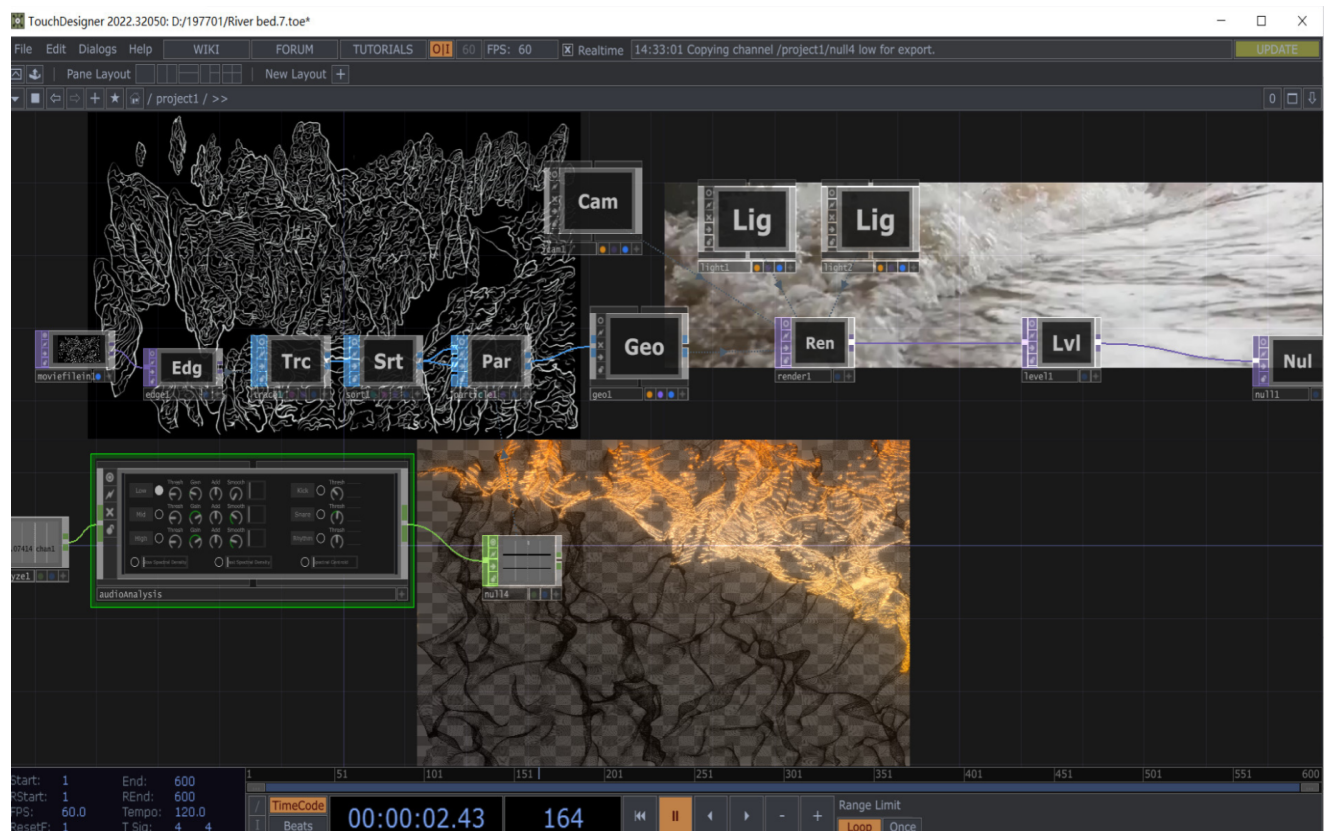
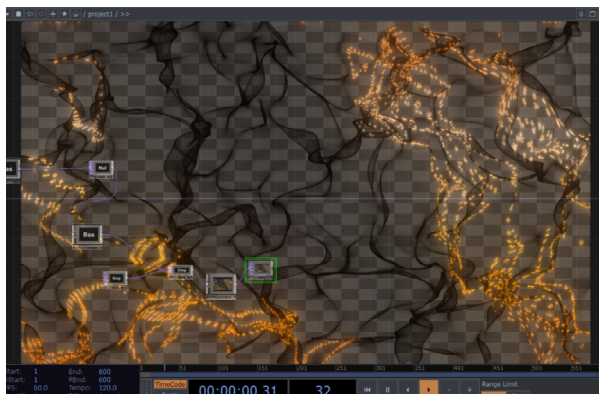
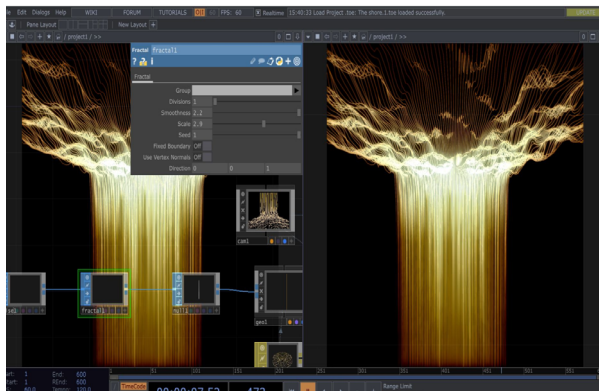


Modeling of Initial installation ideas about Scales

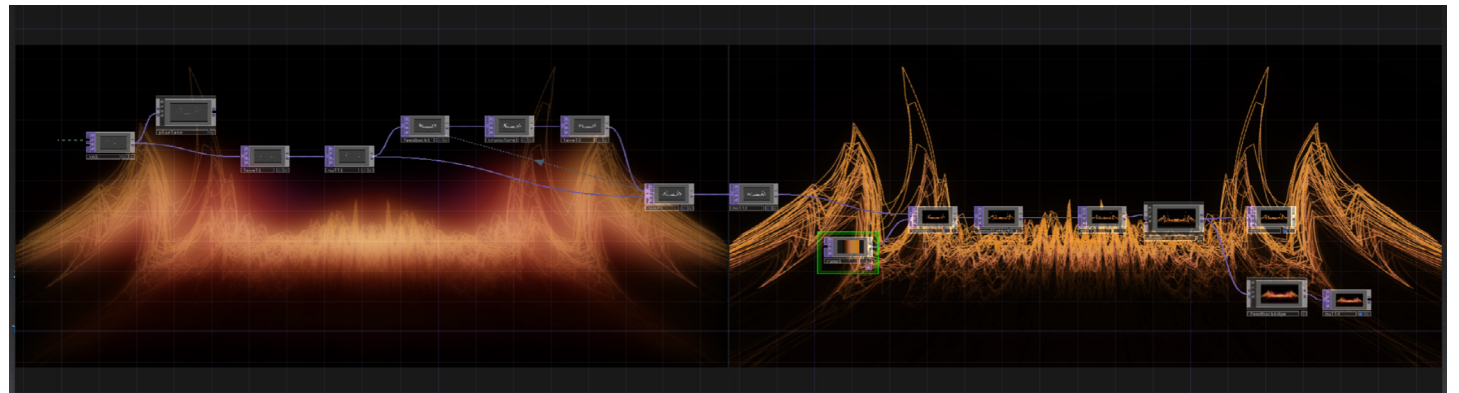
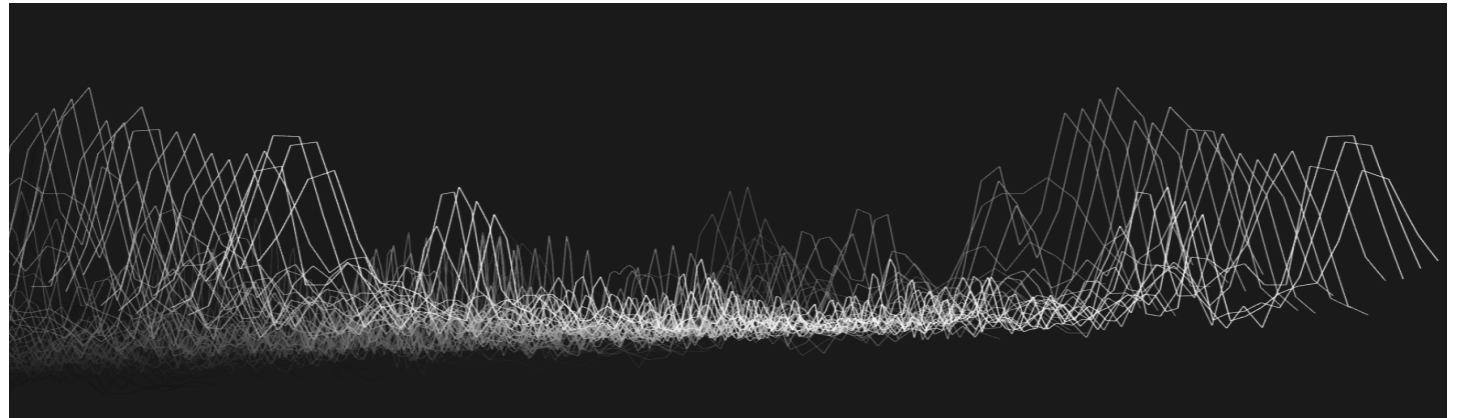


D: TouchDesigner Patch Development

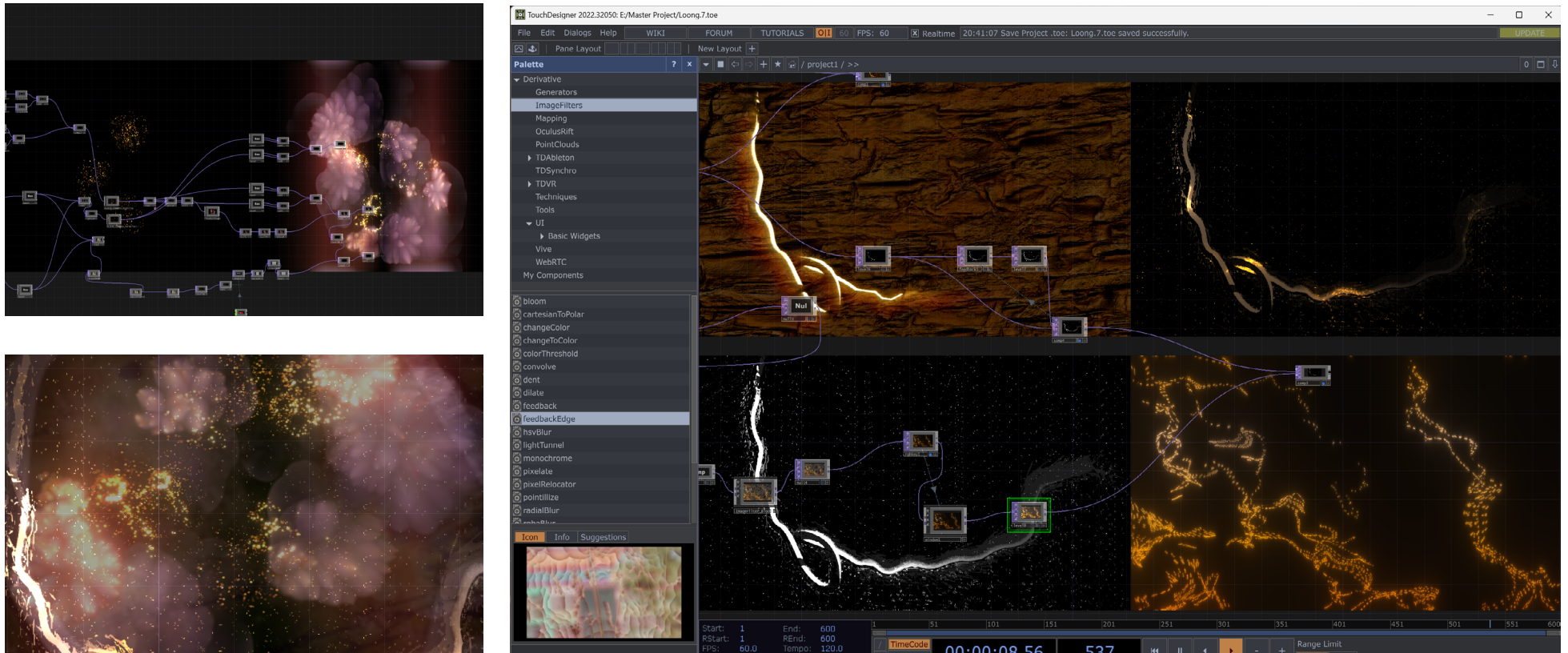
ToucuDesigner visual simulation about Yellow River's Sound and YRSF's Drawings



TouchDesigner visual simulation about Sound driven visuals into mountains shape

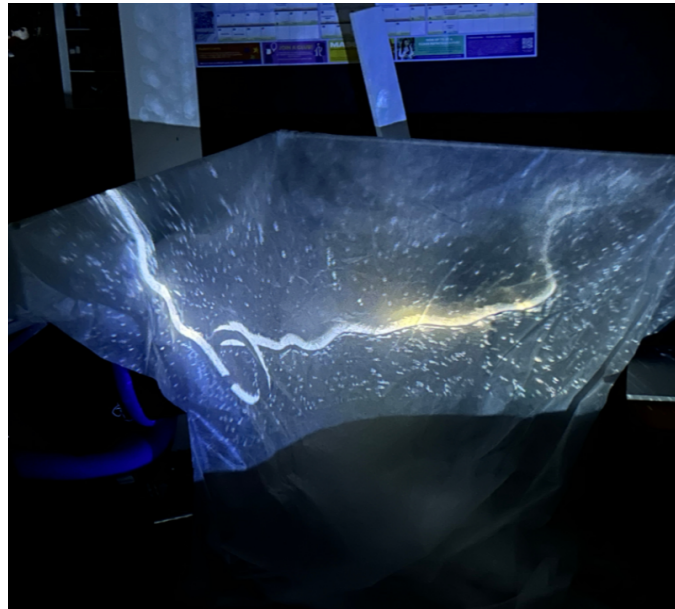
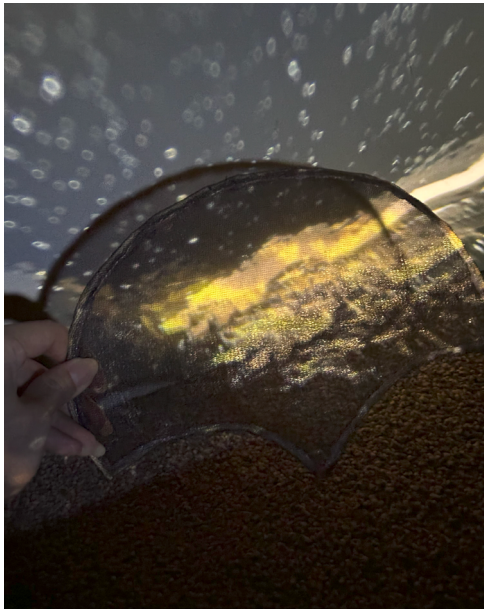


TouchDesigner visual simulation about the initial Iron Flower and Tai's texture



E: Installation Tesing

Testing about the Scale shape installation, The light weight transparent fabric and the Plastic bottle flower represent Prosper brought by Tai



F: Other Testing

Testing the visual in the spacelab.

