

How AI Platforms are Informing Design for Performance Practice

How AI and image generation is being used to develop concept and character design across the Performance programme at LCF.

Introductions:

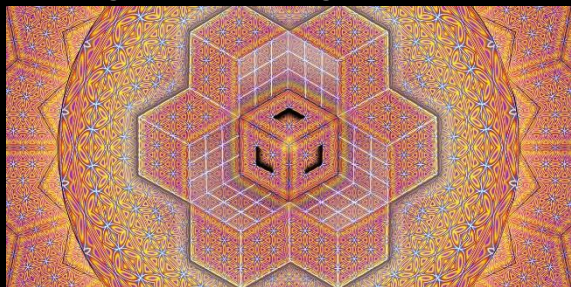
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- Senior Lecturer in Costume for Performance
- L.Jensen@arts.ac.uk



How and why did we begin using generative AI for design development in LCF's Performance programme?

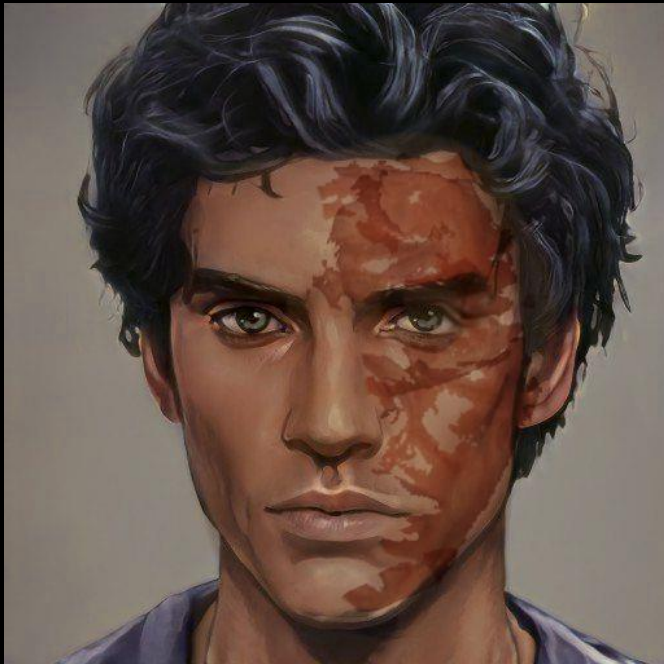
Students are encouraged to develop images as a means to communicate their concept, chosen art direction and lighting and to reflect upon what implications this has on their character design and realisation.

In this example this student narrowed down their ideas by combining their text prompts with images prompts, created separately using Midjourney AI. The Images, seen below, were used to reference their thinking on sacred geometry.



Embedding Drawing Skills Across the Programme: 2021-22

- [Artbreeder](#): GAN Machine Learning based art creation website. Image examples below
- [Dall-E 2 Mini](#): Now known as *Craiyon*, this is a free AI model that can generate images from any prompt



- Artbreeder image examples

Late 2022 = The Launch of Dall-E 2, Midjourney etc



Neptunian Glitter Ball

This Play Does not Exist: Speculative scenography from Jost von Harleßem



In the style of Wong Kar Wai



A Midsummer Night's Dream, Louis Vuitton



Jurassic Park, La Fura dels Baus



Further integration into design practice 2022 – present day: Year 1 Experimentation

Ben Turnbull + 5 • 2mo

AI Midjourney Images

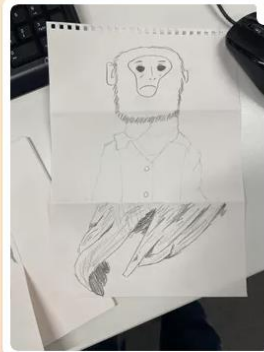


A skeletal Anubis running for the Bus in front of Big Ben in London. Full body shot in the style of Tim Burton

A warrior adorned in tiger stripes wielding a battle axe



A Harpy wearing the pink dress Marilyn Monroe wore in 'Diamonds are a Girl's Best Friend', lying on a chaise longue in Paris, in a horror style, wide angle



PDF
ayse snail (1)



goofy monkey wearing a buttoned down shirt with birds legs



+ Imagine... (coming soon)



Upscale 16 Oct, 3:25 pm

a two headed creature, the left head inspired by Turaco bird, the right head inspired by Natalie Portman in Black Swan



Copy Prompt

Search Image





No Reference image, just text prompt



With reference image and text prompt

Using --tile for pattern generation



No Reference image, just “houndstooth tweed”



With a reference image, just one not made for tiling

Concept Development

Our Synopsis

Three African gods have been reawakened to find themselves in a futuristic era where plants line the walls, buildings are overrun by beautiful greenery. They must find a way to adapt to their surroundings, learning how their abilities can be used to help and protect this new world. What secrets lay hidden in this growing society, and is it as 'green' as people truly believe? Another god has reawakened. This one seeks revenge on what the climate of his home has become. Will the heroes fight him or join him in stopping this terrible disaster.

For our scenery I wanted to see what Adobe Firefly would generate for me when I asked for an 'Eco futuristic New York City' to start. I definitely had to play around with the visual presets that were available until I got a result I liked with this prompt (top right). I started thinking about what sort of locations could be used to substitute this imagery during the actual shoot. After looking at the London Green Space book I thought the Barbican Conservatory and St Duncan in the East were the two best locations due to their contrast of stone/concrete architecture and the nature around them.



• Critical Use of GenAI

Precision

Individualism

Consistency

Bias

Appropriation

Environmental costs

Don't know what to write

Designing with AI

I used Bing Image Creator when generating these images. I typed in the keywords: costume, Iris Van Hepurn, bioluminescence, blue, underwater...relating to my research. Here is a few images selected from a range of trials and experiments with different key words.



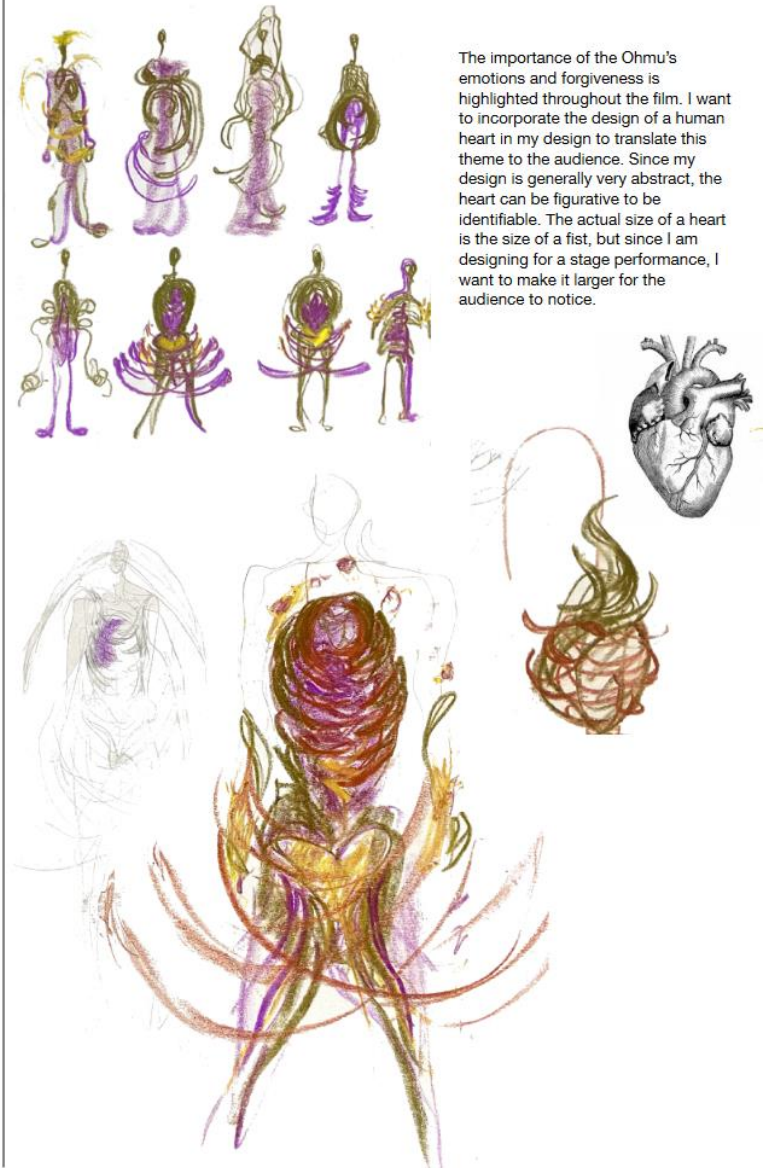
At this stage, I used the keywords, costume and Iris Van Hepern, I feel like the outcomes are too predictable, they also feel very stiff.



I no longer wanted outcomes that already contain a character and garment. I used the keywords, creature, crustacean... instead. I am happier with these outcomes, especially the last two on the right. They create the flowing motion I want, and are very abstract. The feeling of the lightning and bioluminescent quality that is glowing from inside the creature is also very soft and beautiful.



I typed in the keywords, inspired by Gaudi, for these images. It becomes very obvious straightaway in terms of the pattern and shapes. I do not like these results because they are too straightforward. In conclusion, using AI is helpful when I want to design something really fast, or I want to spark some inspiration for myself. I find that there are many limitations when I already know what I want to create. Especially since I like to use my own artistic style when drawing, AI is not able to achieve what I imagine. It took me many trials to generate these images. I don't know how much more time I will need to create a design I can use. In my opinion, an artist's individual style is very important, this is developed through the artist's own experience and relationships. AI lacks this quality and cannot replace this factor.



The importance of the Ohmu's emotions and forgiveness is highlighted throughout the film. I want to incorporate the design of a human heart in my design to translate this theme to the audience. Since my design is generally very abstract, the heart can be figurative to be identifiable. The actual size of a heart is the size of a fist, but since I am designing for a stage performance, I want to make it larger for the audience to notice.

Storyboarding

Storyboard

Our designs represent this section of the story



1. Select your character (storm or BP)



you either view OR BP's backstory depending on selection



2. Storm is being dressed in traditional robes.



3. Separately, BP is also being dressed



4. They stand in the middle of a circle in a dry field. people dance and sing around them



5. They drink the iboga root mixture out of a ceremonial cup



6. cuts to visions of how the world used to be



7. How their ancestors used to live



9. They face their past selves who tell them they must fix this problem before it's too late



10. When they come back to reality - they are overwhelmed by the knowledge they have regained. They tattoo 'Iyare' onto each other to close the ceremony.



11. Player mode : Save the community of Iyare - Level one : weaving cloth.



12. Player mode : Save the community of Iyare - Level two : Harvest the Iboga root to access long lost memories



13. Level 3 : Building the community Reteach oral traditions, history music and dance



14. Level 4 : you have earned your skin Now you must use your powers to defeat Leon Husk - before he finishes his 20 year plan and damages Iyare beyond repair.



15. The only way to beat him is to go face to face at his headquarters...

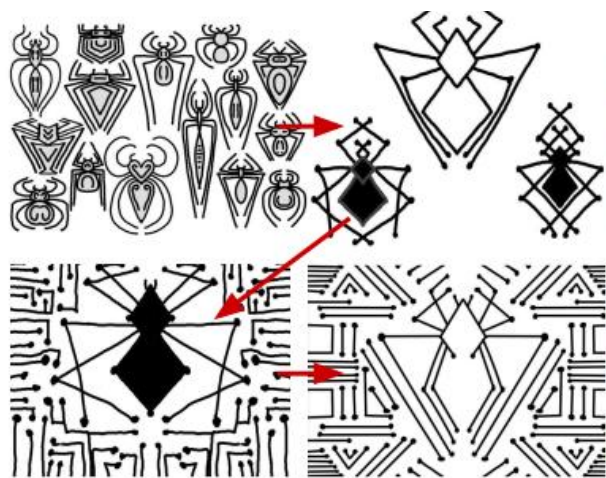


Figure 10. Group 9 (2025) [Storyboard]



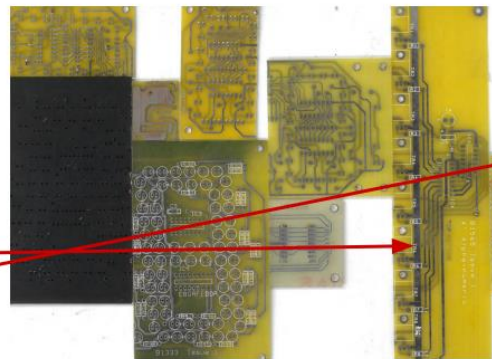
I like those two spider designs the most from what Bo showed me because of the legs of the spider crossing on one and other which make me think crossing universe in Spider-Man into the spider verse movie. I thought it would a good reference to Miles Morales since we are changing the setting of the universe where our character is in already.

Designing Process for Miles Morales



Those are some of Bo's spider designs taking inspirations from the circuit boards that we bought. Key idea development design idea is taking the organic spider design and make the lines more straight with dots at the beginning and the end of the lines. Our plan for this is to might be use for the spider 3D piece on the chest of Miles Morales.

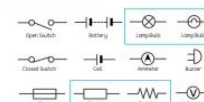
I have bought some old circuit board to take inspiration from for the pattern of the electricity Spider-Man. The key of the pattern that I really like and want to use for the design is the straight line with the dot at the end and the sort of parallel lines coming out one place.



DESIGN IDEAS INSPIRATIONS

My group and I decided to take inspirations from the inside of the computer, using circuit board and motherboard as main references to base the costume and hair and makeup on. As the theme is futuristic, we wanted to explore a little more about the transhumanism side of society and the implication of AI in people lifestyle.

I have the idea of incorporating circuit board pattern into the costume by using decorative methods like perhaps puff binder, foil, 3D texture paint or anything with volume to create those line onto lycra. I also looked at acrobat in circus for their agile movements which reminds me of when Spider-Man swing around the city.

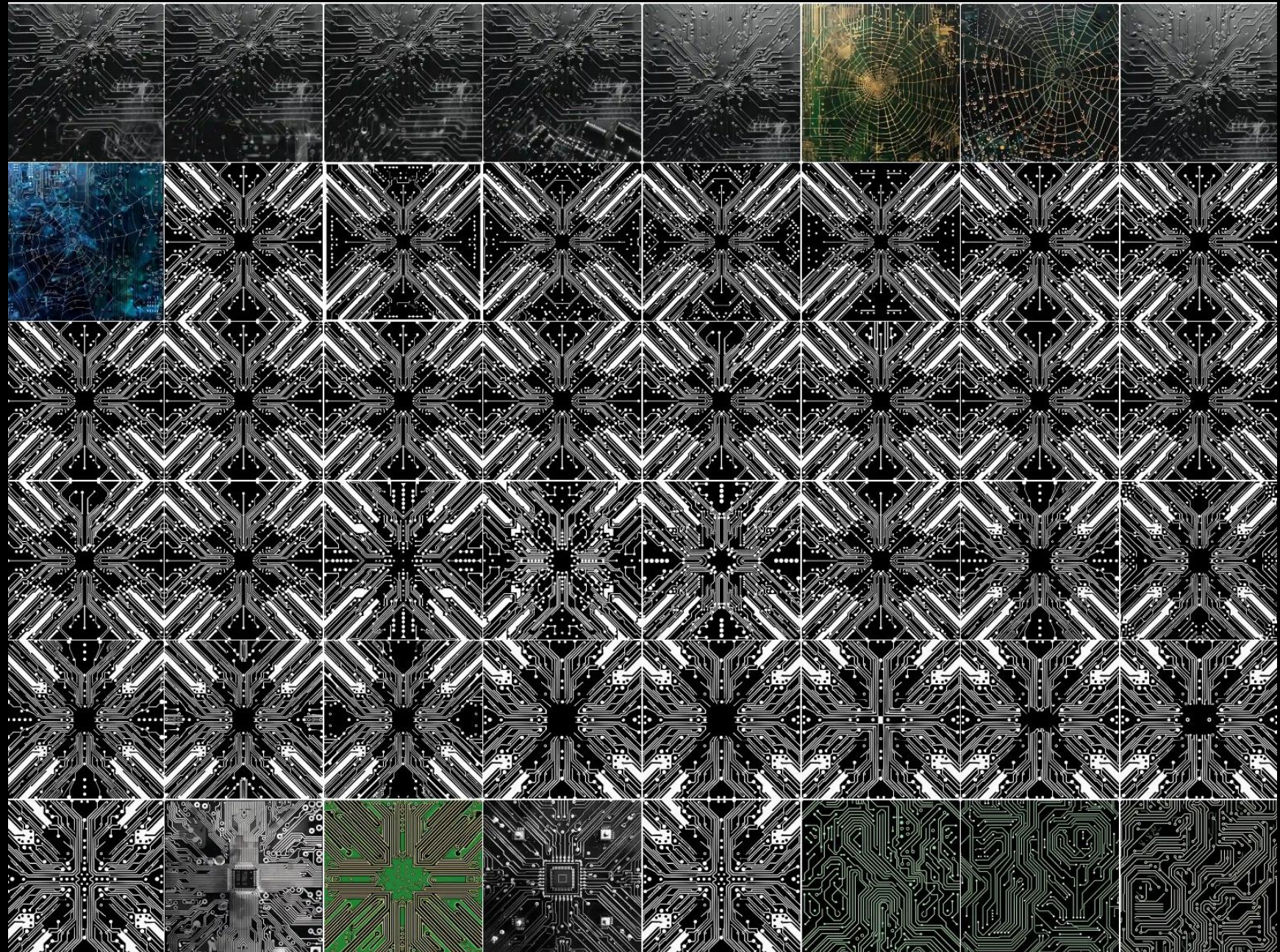


The student's aim in using Midjourney AI was to explore the idea of a spider's web and spider motif based on electronic components that already formed the basis of his research and his team's initial sketches, shown on this page.

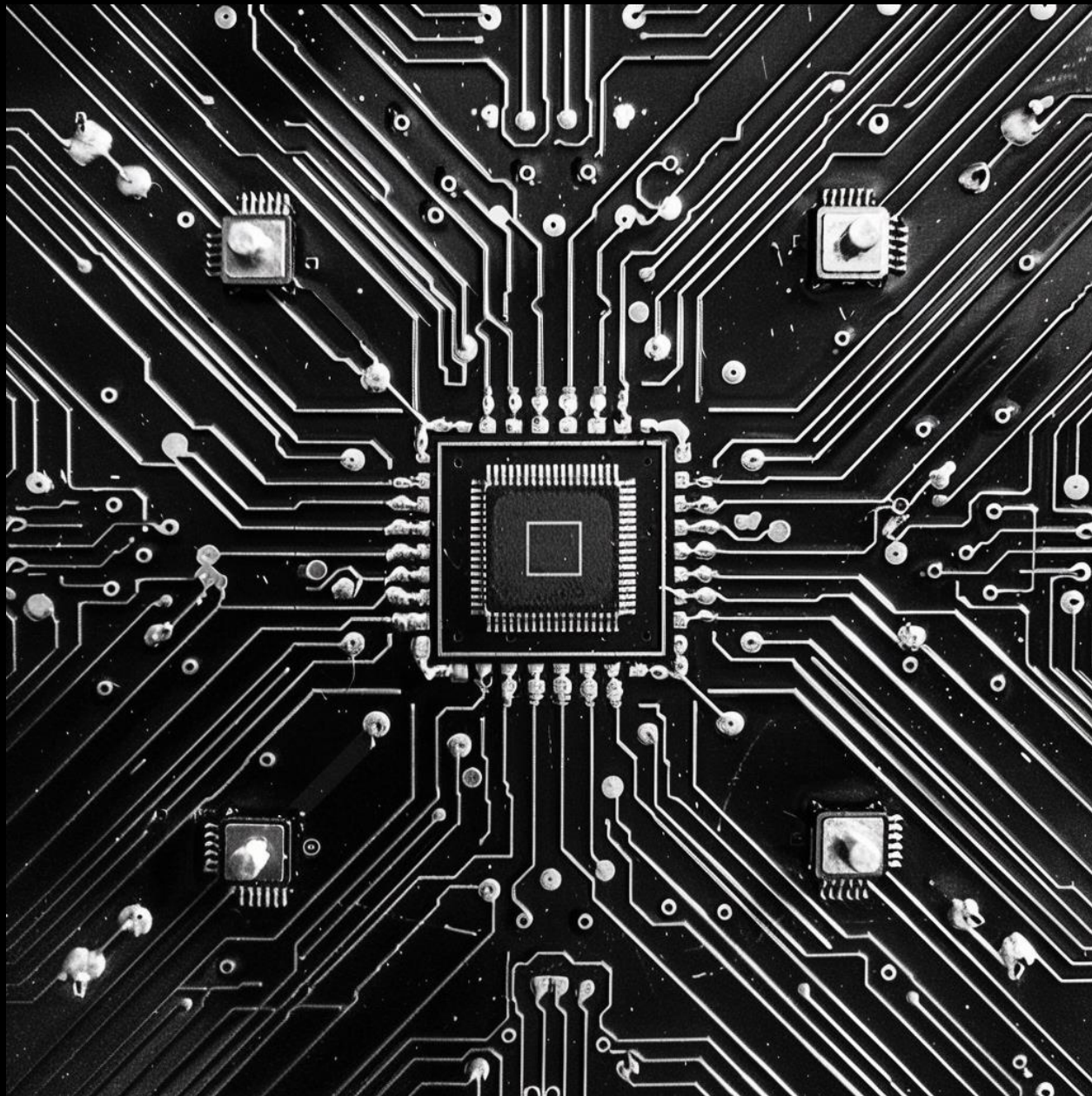
The following example shows the progression of his ideas and text prompts used to generate images for his embellishment design.

Example text prompt for first generation of images right:

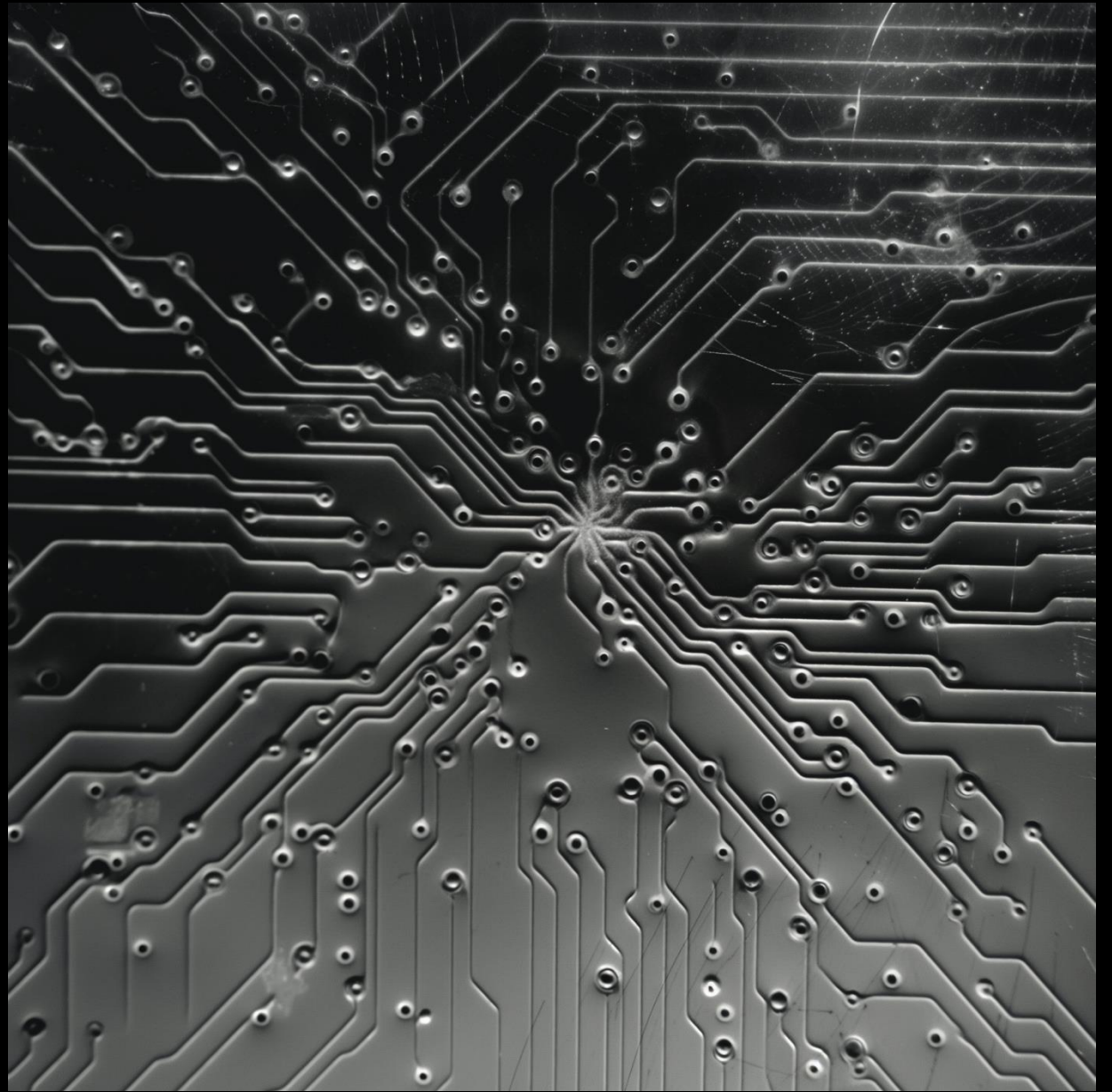
“a simple electric circuit board pattern coming out of the centre motherboard”



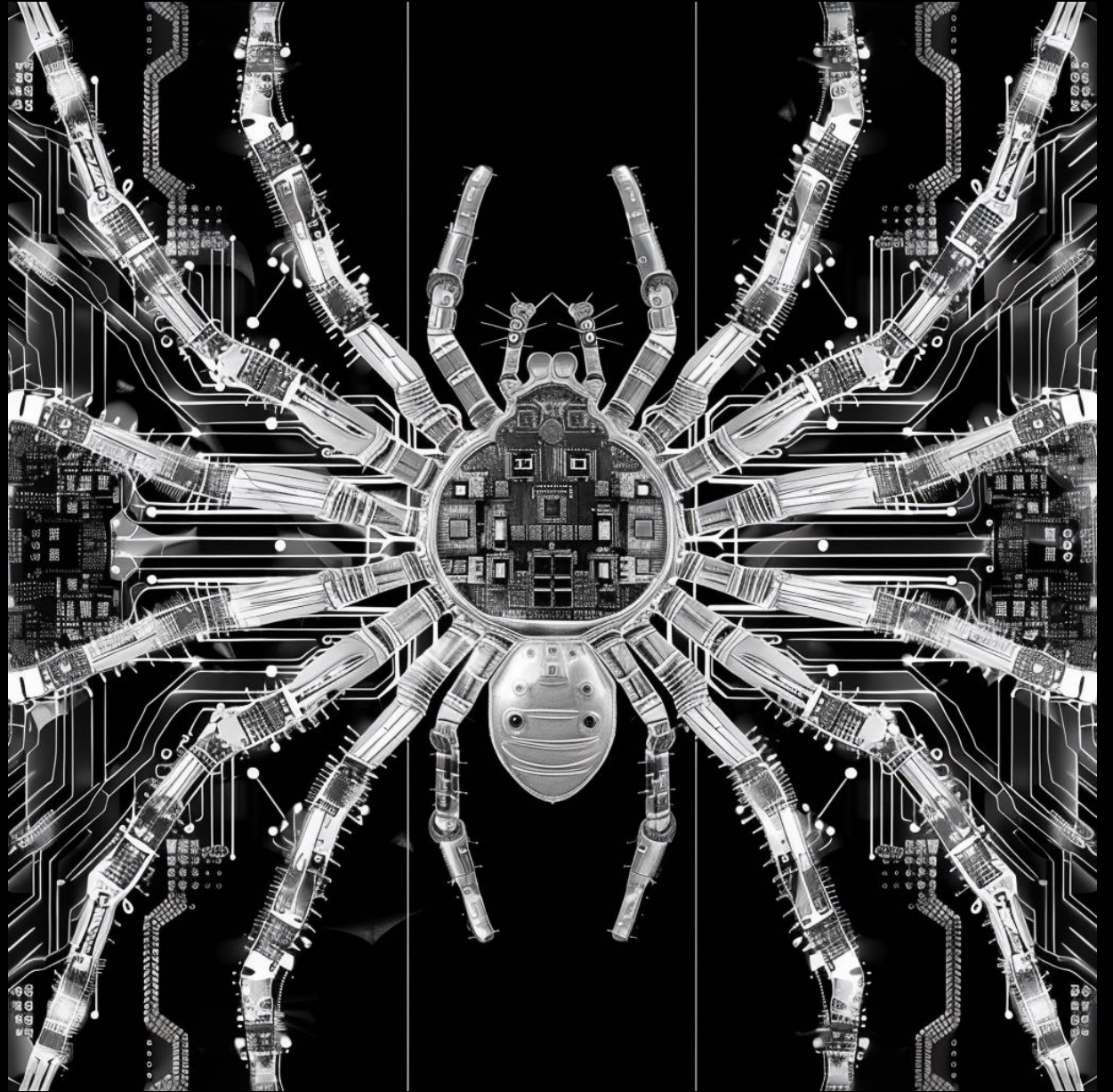
Text prompt: "a simple electric circuit board pattern coming out of the centre motherboard"



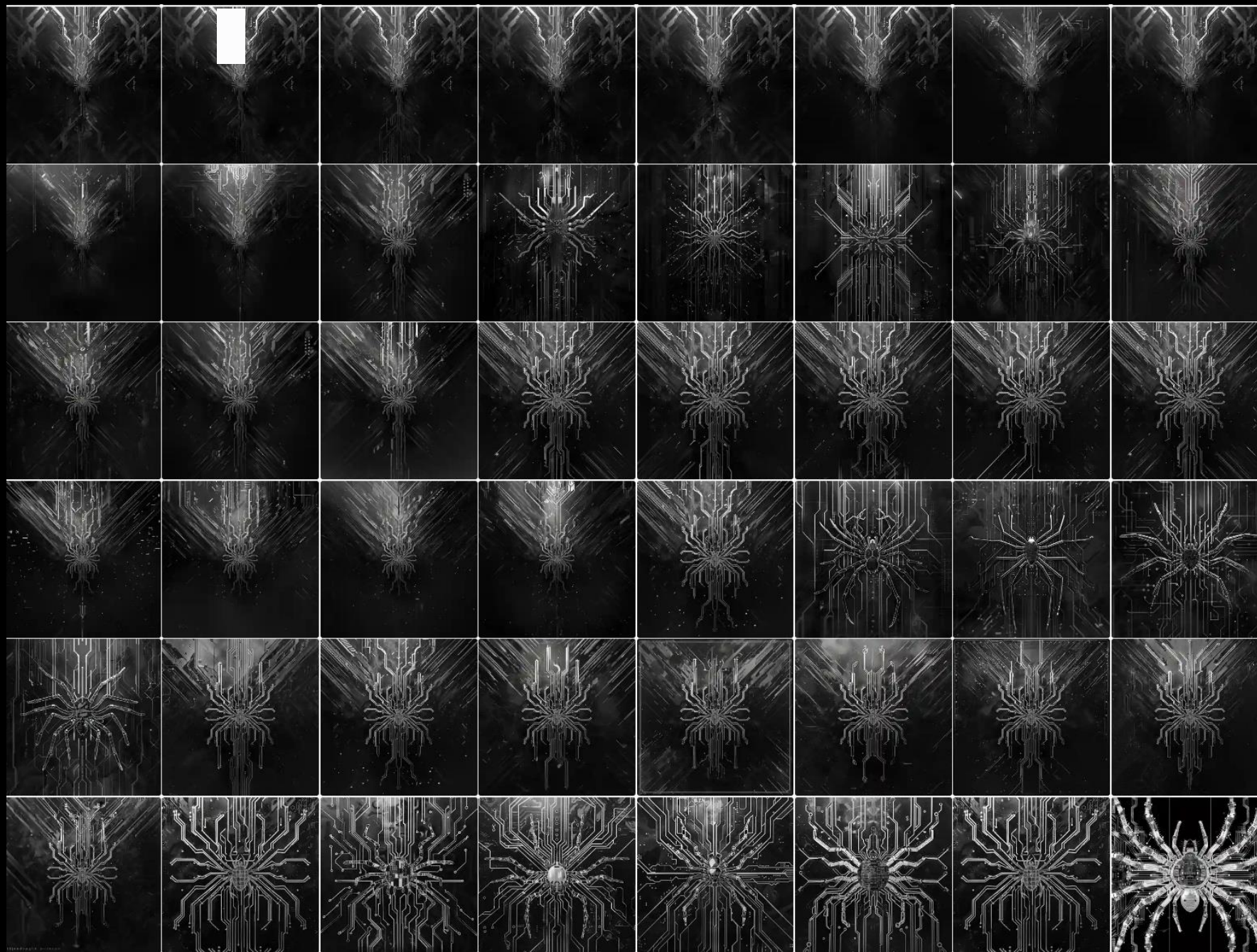
Text prompt: "spiderweb like electric
circuit board pattern coming down
from the mother board"



Text prompt "a symmetrical circuit board design leading to a central spider shaped cpu for garment print design in black, white and silver"

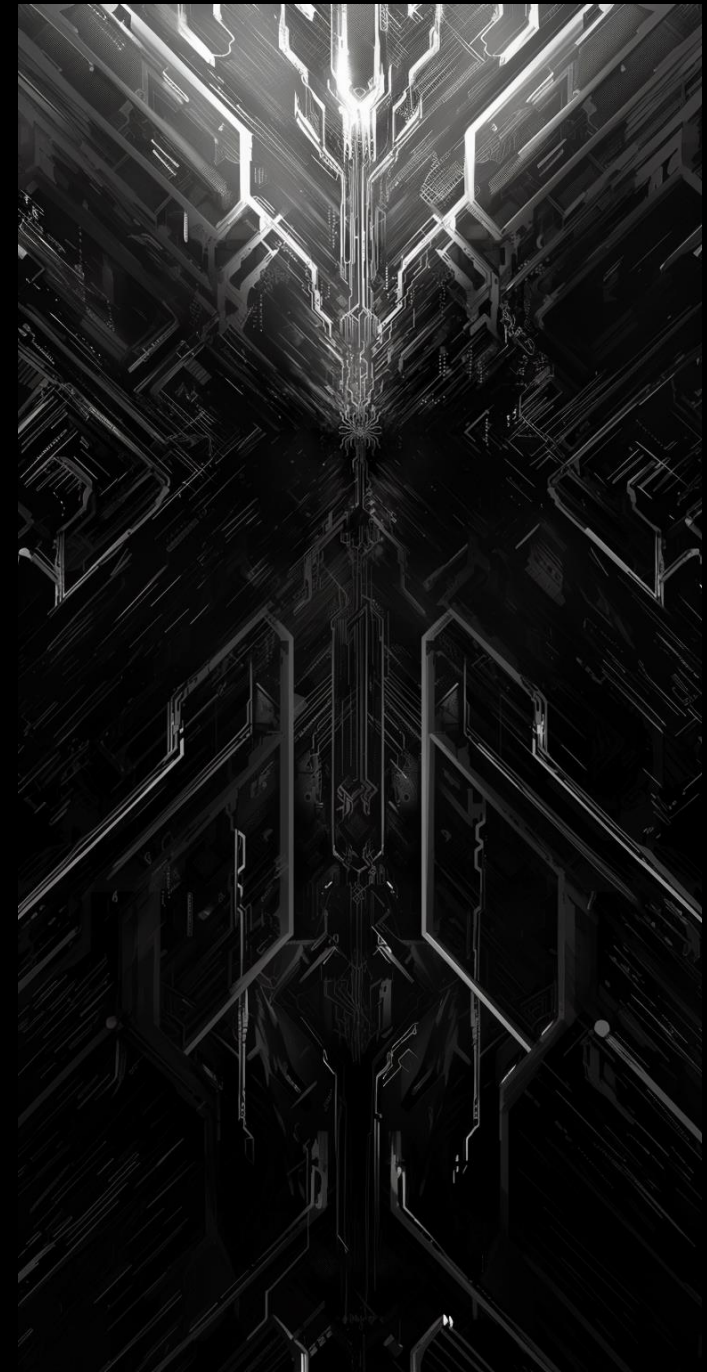
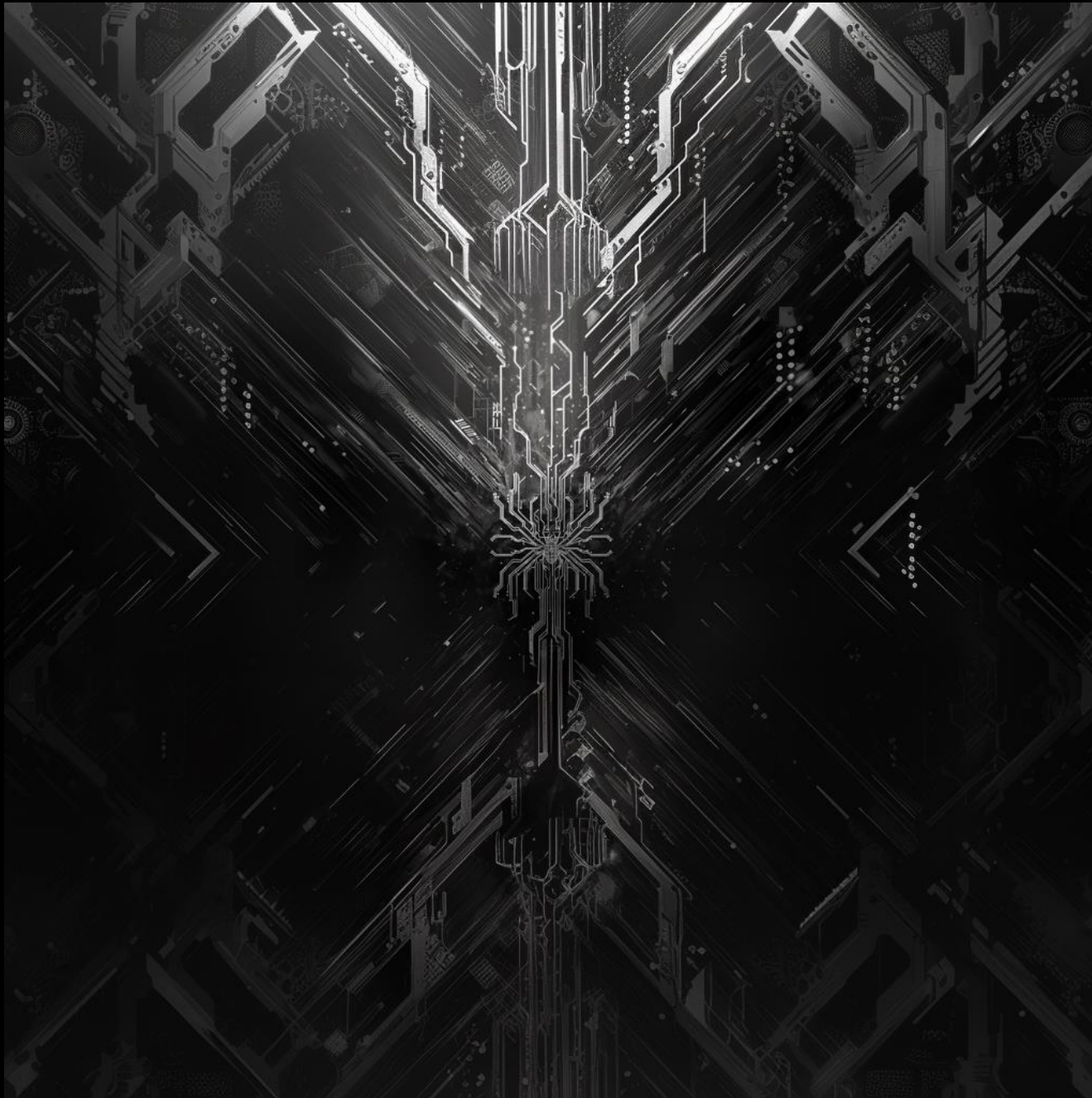


Text prompt: "a symmetrical circuit board design leading to a central spider shaped cpu for garment print design in black, white and silver"

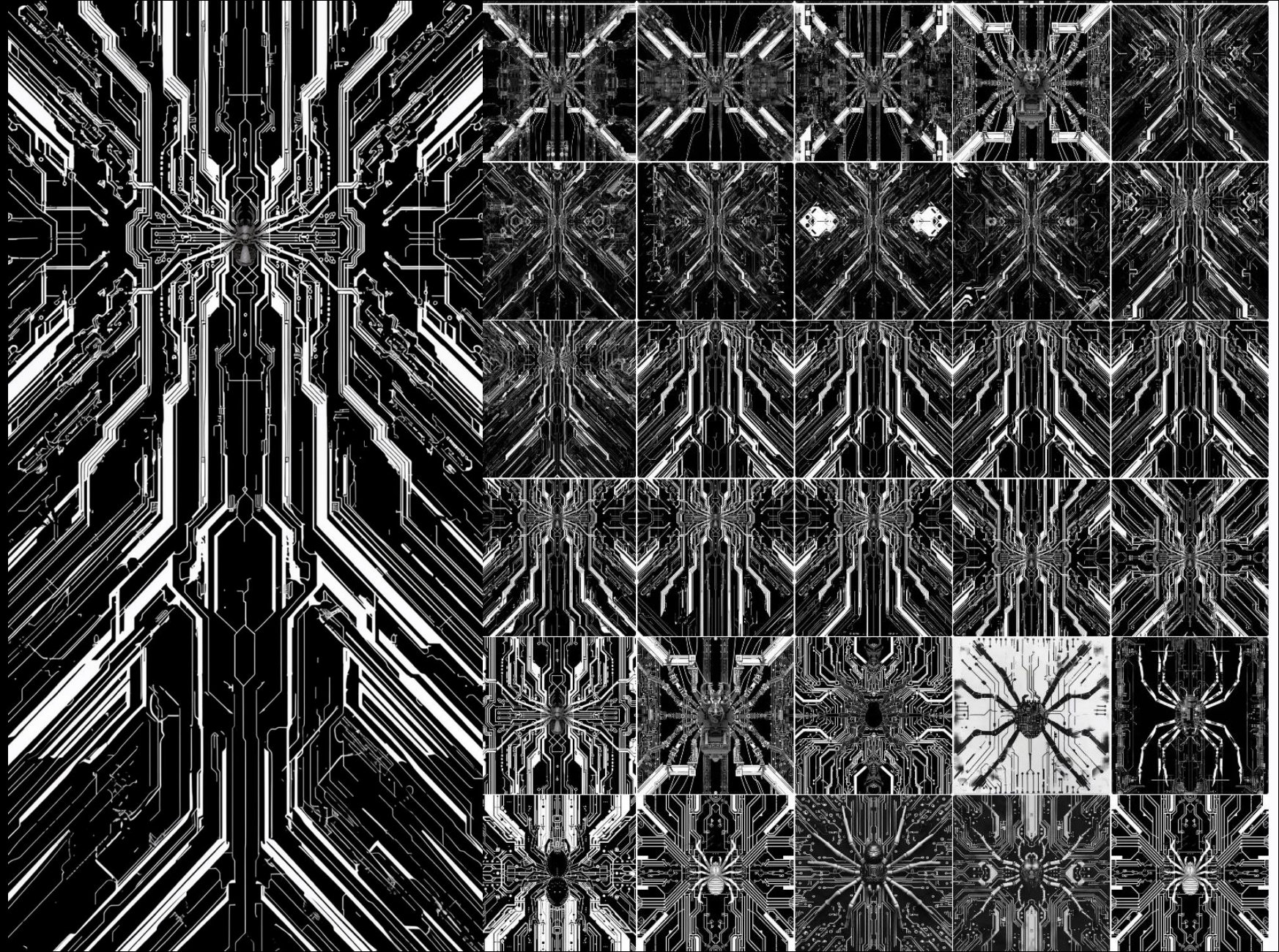


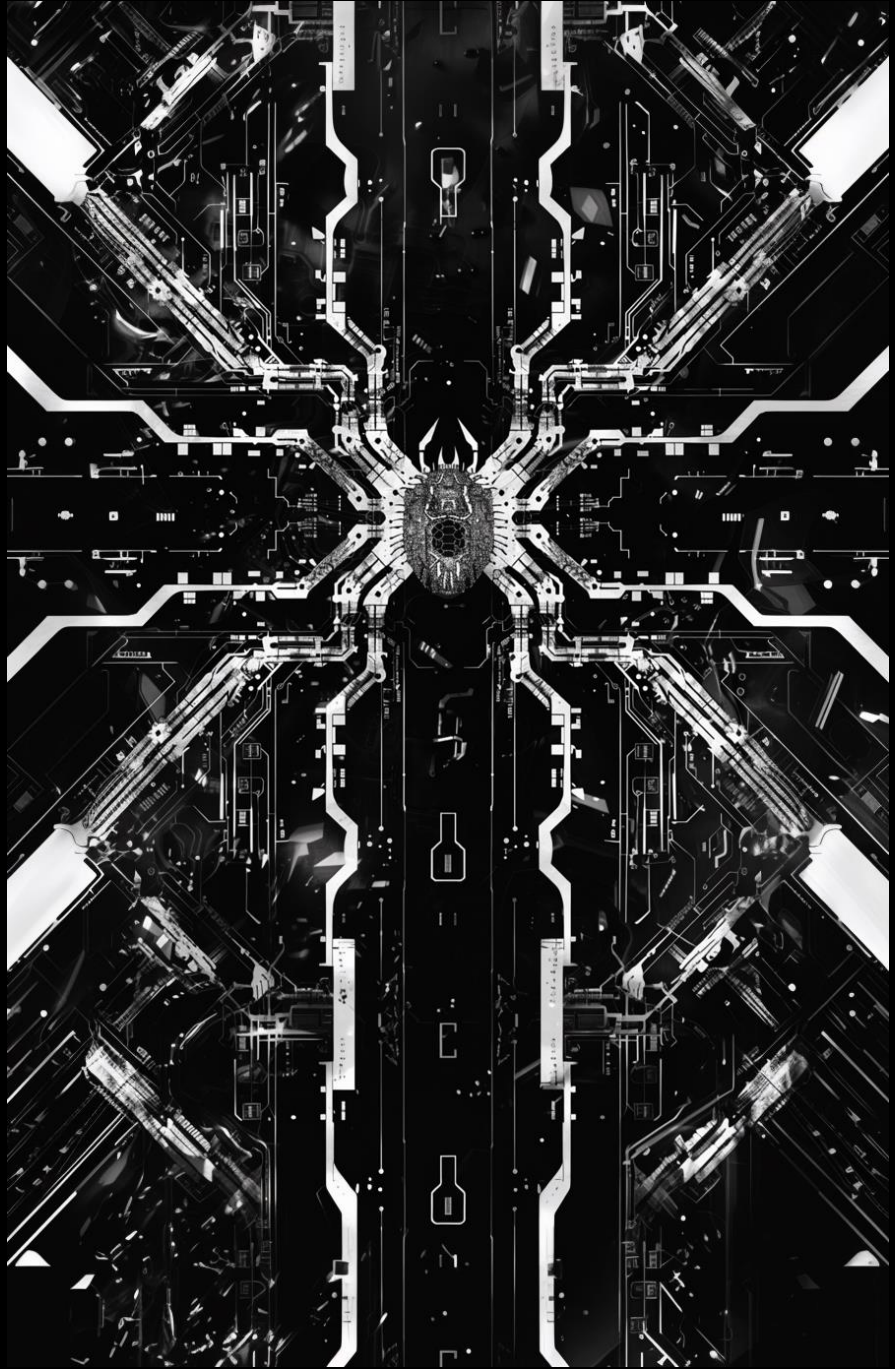
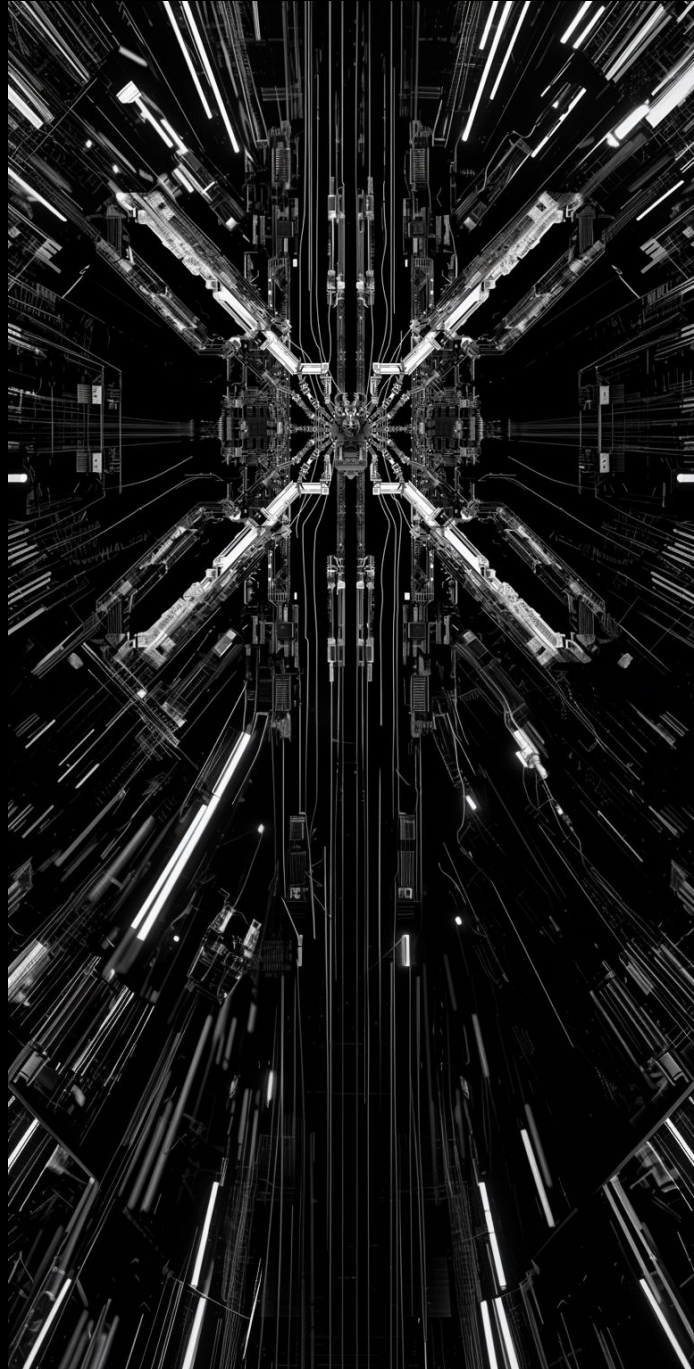
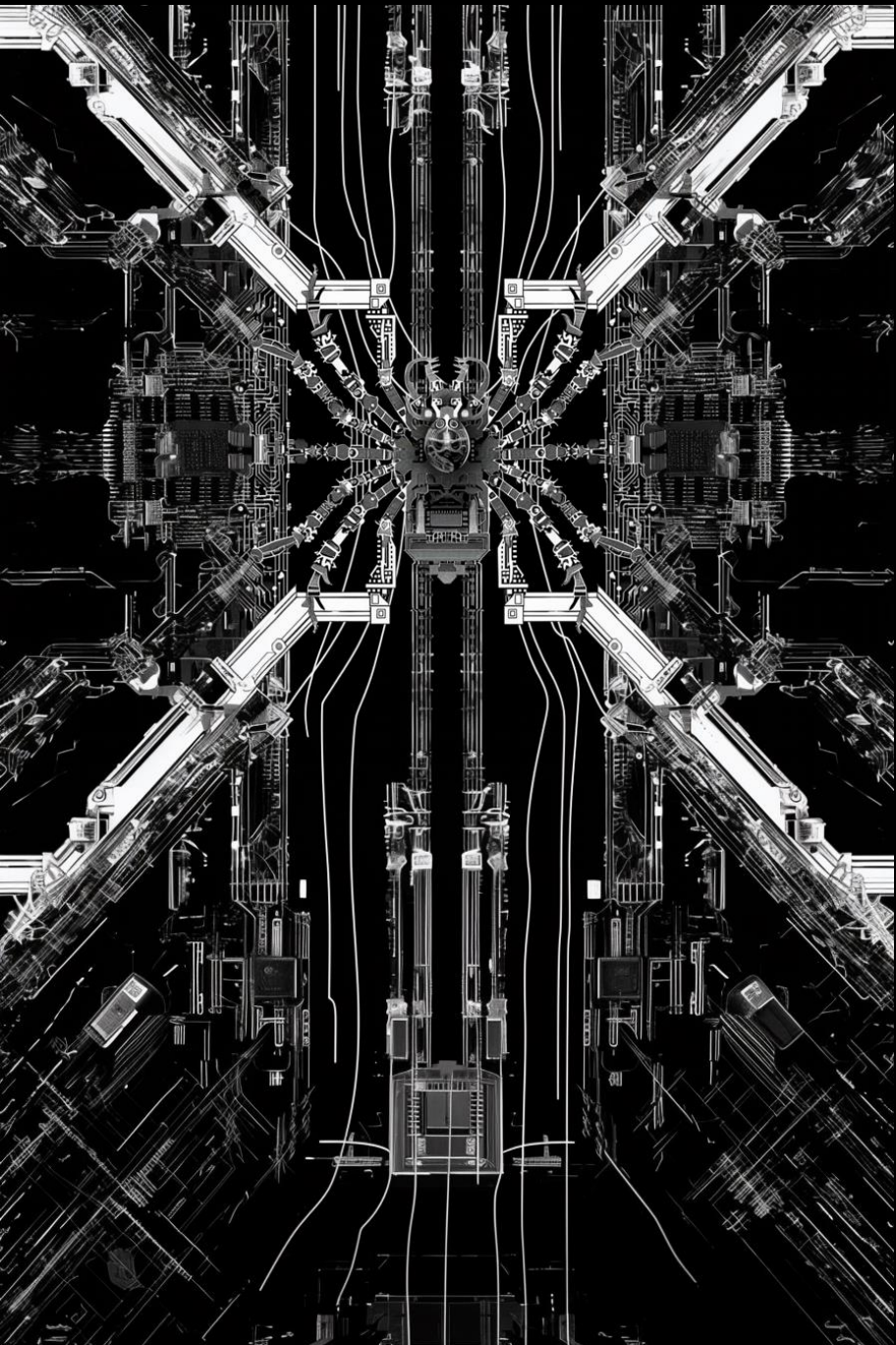
The student then went on to play with the scale of the image considering possible layout for a catsuit.

Text prompt: "Vary Region 25w a symmetrical circuit board design leading to a central spider shaped cpu for garment print design in black, white"



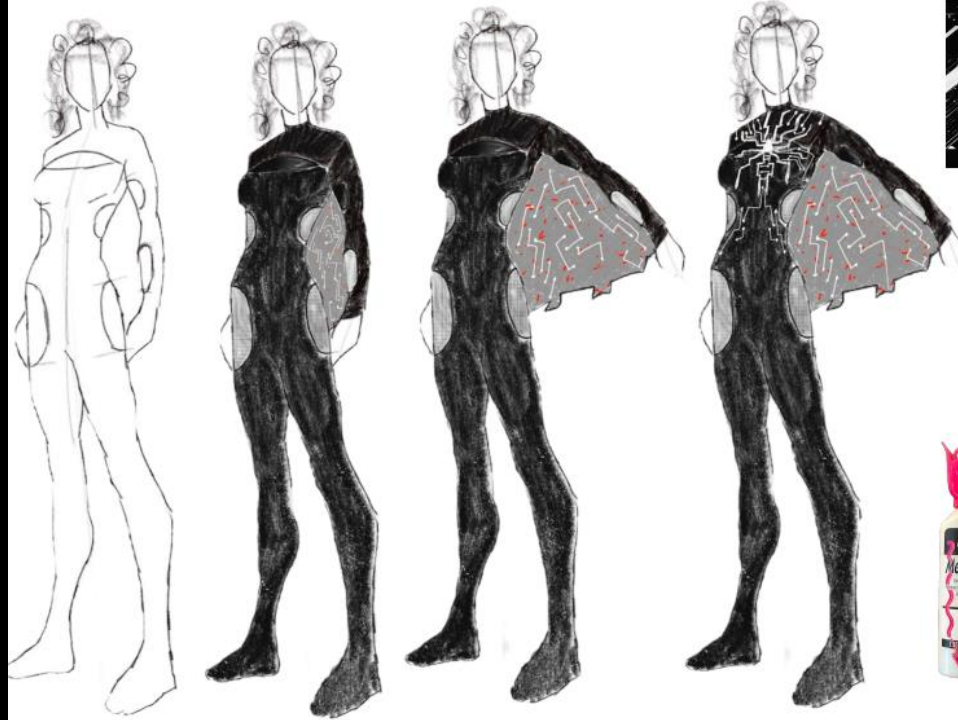
Text prompt: "a symmetrical circuit board design leading to a central spider shaped cpu for garment print design in black, white laid down for catsuits garment"





The student then went on to use the embellishment design, collaging it into their character development drawings.

We decided to add the sort of spider wings to our costume to reference the original Spiderman costume in the comic by Stan Lee and Steve Ditko because we think that we needed to add more texture into the costumes since the base lycra is really smooth and body fitting. We also used foil on mesh for some of the panels because this project is about black skin, we wanted to highlight the skin through the mesh underneath it so the audience would know that it is a black person in the costume.



We used A.I to come up with this mechanical spider pattern that we would foil on top of the chest

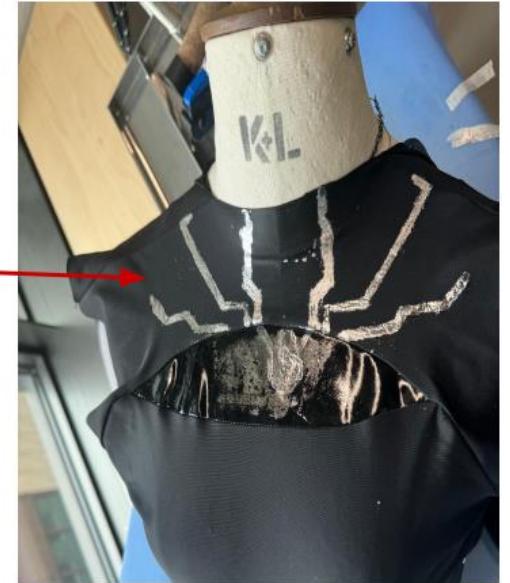
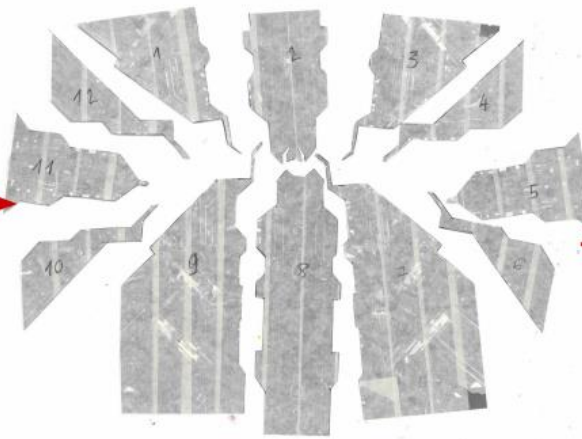
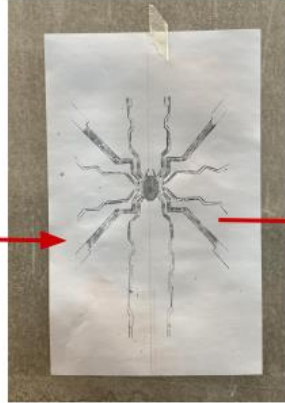


Tulips dimension fabric paint. We would use it to draw the circuit designs



We want to keep the creative side of the costume hence why we apply on the costume hands-free without any pre design pattern.

They also experimented with using the design as a stencil combining it with painting techniques and foiling from other unit teaching



In order to foil the spider design generated by A.I, I printed it out of the an A3 paper so I can cut out the negative space in order to be use as guide line for when I apply the glue in order to foil. This is a very time consuming step as I have to hold on the the negative pieces then apple the glue with a small brush in between the line then foil it one by one so it doesn't get messy all at once. As expected, when I did the body of the spider in the middle of the PVC panel, the surrounding start foil on it own without glue when I press with the iron. This make it look very messy and camouflage the spider in the middle, making it hard to distinguish the spider. Luckily, I was able to remove it with acetone where it dissolve the foil directly.

I also need to lower the collar as in the last meeting my performers found it hard to breath. Because I was running out of time, I did a tube collar where you overlock a tube directly on to the collar to have a nice and quick finishing .





Removing the foil out of the PVC was easy with the acetone however on lycra is a little bit more complicated as I have to gently rub out with a cotton buds the area that got foil by accident. We have this little piece of circuit board from the pack that I bought in white that I trim the top edges to put on the foiled spider to create that dimension that we wanted. and the circuit line works perfectly with the lines that I have drawn in 3D paint coming down to the stomach



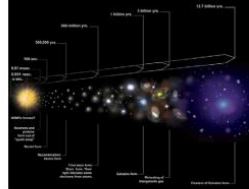
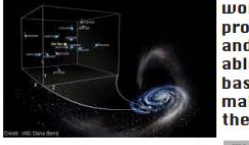
The final result is very to what we had in mind which why we really like it. Looking there are areas that we could have improve such as putting the collar before the zip or doing the foiling before sewing the panels together; but overall everything works out fine and we think that the costume fit our chosen character and world concept.

3rd Year Student Ziggy Gunning used Adobe Firefly AI experiments to develop visuals informed by her study of the nature of particles and black holes. This experimentation went on to influence the aesthetic of her final design for the PPP unit.

This student had already completed an extensive amount of visual and theoretical research prior to using AI as a tool to develop their design work.

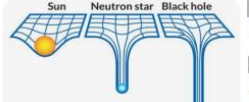
THE UNIVERSE: Physical Matter

BIG BANG THEORY: Development of the solar system

1. Through research conducted on the physical body and human form, Scientific links were made through our connection physically with the universe. We are all made of the same matter, research into how, when and where these links have been made has helped in development of a world or 'possible' world created within the project. Through the use of AI and digital artists I will be able to elaborate on facts based around particles that make us and our universe, in theory, one of the same.

THE MULTIVERSE:

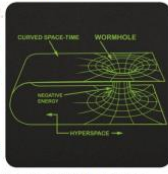


PARALLELS: occurring or existing at the same time or in a similar way; corresponding.

MULTIVERSE: a system composed of an infinite number of universes that coexist parallel outside our space-time

BLACK HOLES: General relativity predicts that the compact mass can warp space time (fact) Gravity is so strong that nothing (including electromagnetic waves) have enough energy to escape it

WORMHOLES: (theory) a short cut through space time. In many ways it backs up Einsteins theory of relativity but gravity is so strong in the black hole that there would need to be proof of negative energy to keep the 'gateway' stable.




FIREFLY AI EXPERIMENTS:

PROMPT: painting by dali of a spirit made from particles, breaking off to far away stars


4. I did not like any of these experiment outcomes, It was really useful in terms choosing key words that reflect the visual representation I am trying to achieve but I think the colours are to bright and the particles are either over exaggerated or not intense enough. I will later use these images in combination with other finding.

PROMPT: surrealist painting made from high vibrational particles in a black hole




CREATING WORLDS: Parallels

JAMES.ROHR: DIGITAL GARDENER

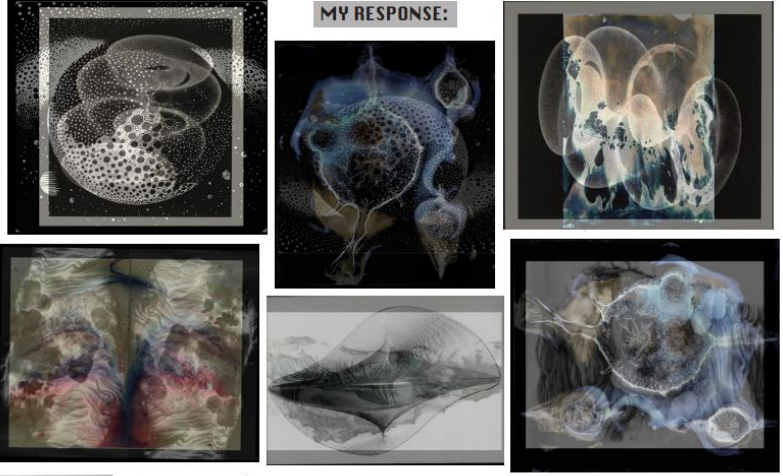


PARALLEL BOTANY: LEO LIONNI



5. Digital environments are based off of anatomical studies conducted on plants, animals and humans. Used as a basis in which to develop potential sustainable life on other planets. These environments have also been looked into in the 'Alien Worlds' doc on Netflix (2020). Where potential life on other planets is visually examined, based off of scientific evidence of other planets and what life could potentially exist within these conditions. Not only is this fascinating but leads way for ideas within sci-fi films, tv series and art work within the performance industry. I will now use this idea to amalgamate factual evidence of the solar system and created parallels, creating potential character worlds for my project.

MY RESPONSE:

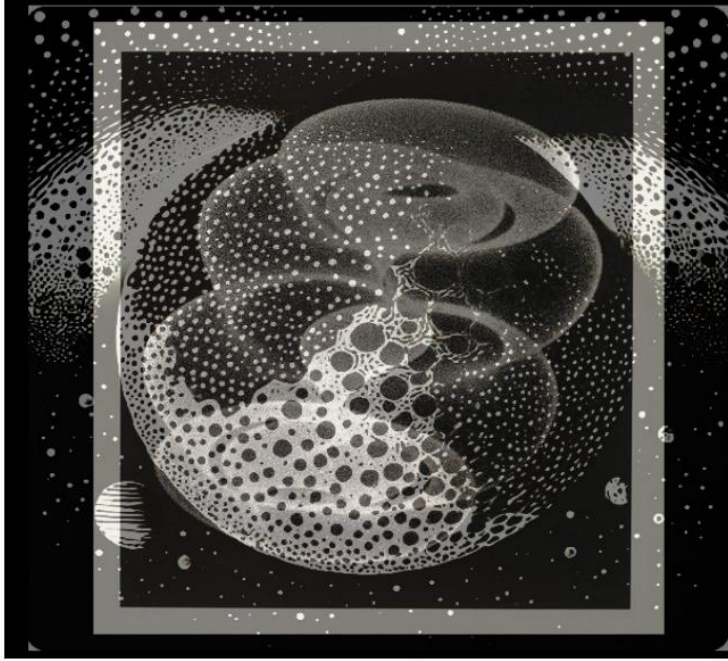


REFLECTION:

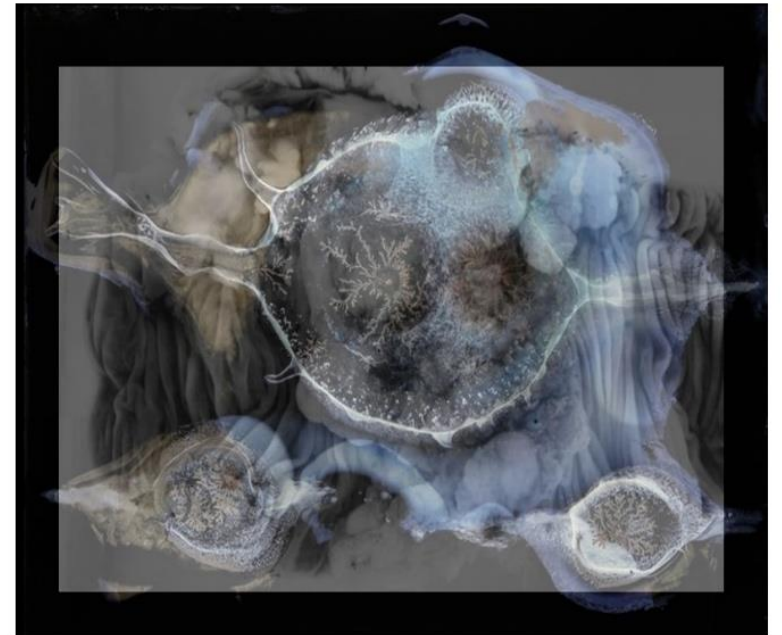
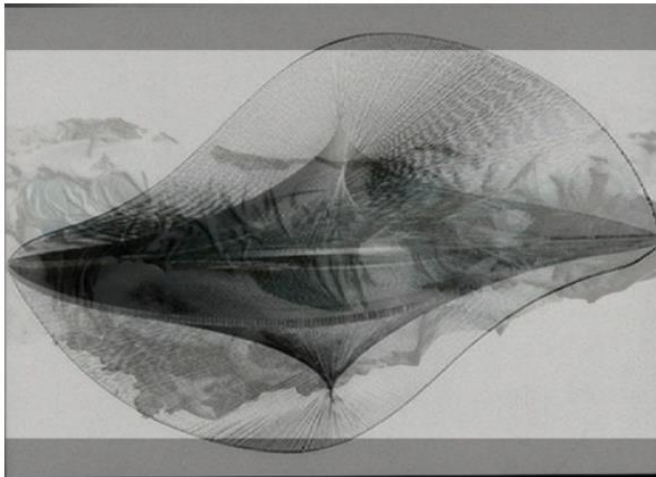
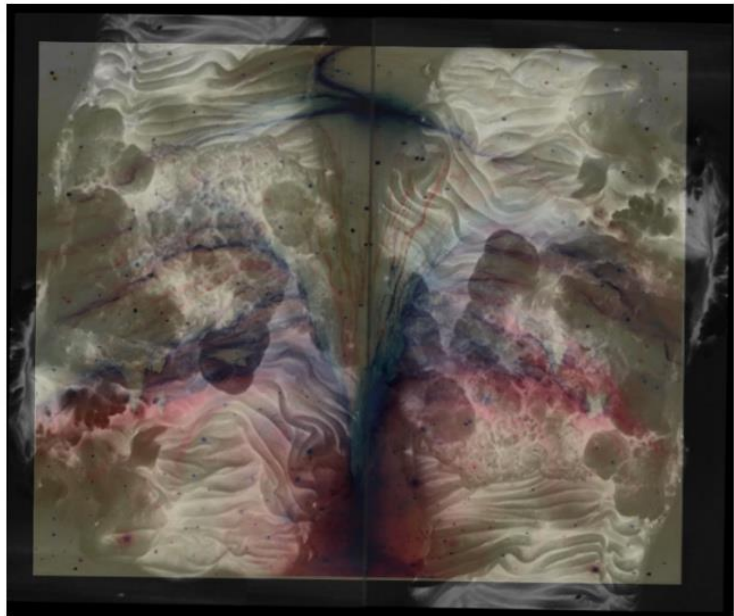
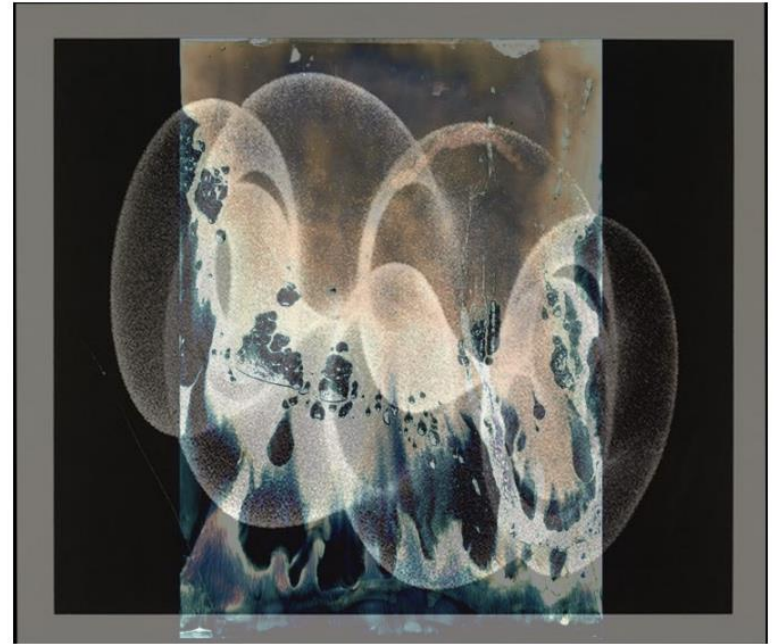
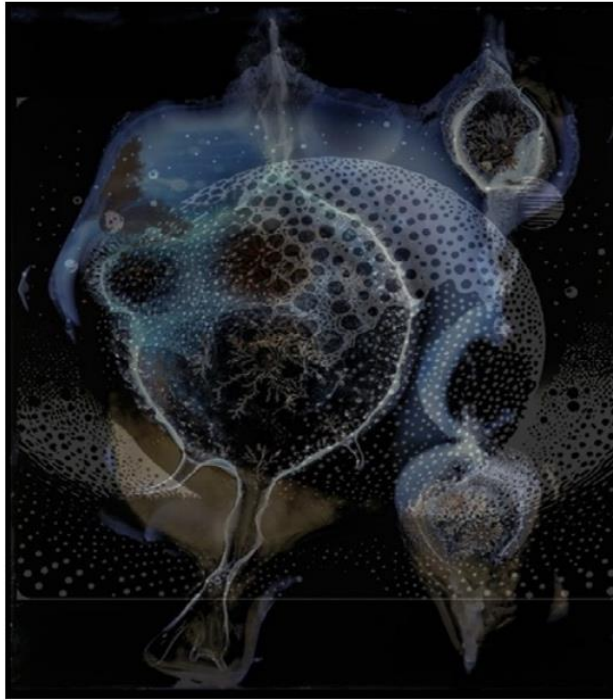
Combining evidence and truth through visual representation to create a possible space or character has been really useful. Using the AI generated images created on Firefly to overlay them with pictures of nature; flowers, water and images from space (found throughout the research) I have created an outcome of the response that add to the aesthetic of the overall project, while also linking to the oneness responses conducted on page 6. I am really interested in the linear quality the finished pictures have, this is something I would like to play into within the costume design which also relates to the transcendence moodboard (pg6). I now plan to explore structure (costume) that compliments the worlds, key iconography of the soul/spirit and analyse my performance ideas through the movement experiments conducted prior.

PROMPT: surrealist painting made from high vibrational particles in a black hole





MY RESPONSE:

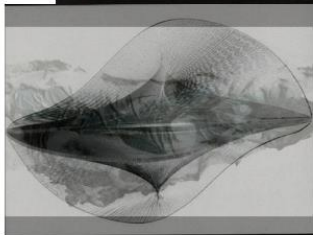


The student went on to experiment and develop physical samples as a progression from her AI image creation work.

The student went on to create their final outcome using Blender.



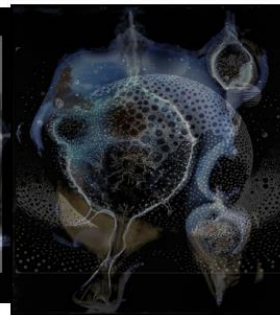
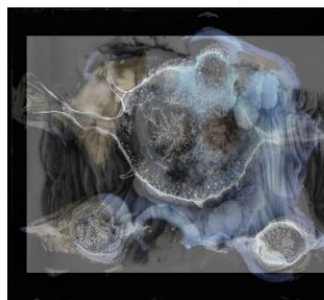
1ST DESIGN:



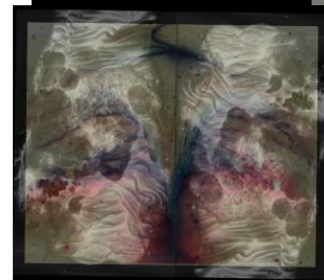
REFLECTION & ANALYSIS:

DESIGN LINE-UP: Analysis and Reflection

3RD DESIGN:



2ND DESIGN:



Fragments of The Tempest

A Prototype development of hair, make-up and prosthetics artistry for gaming and digital experiences



Funded by

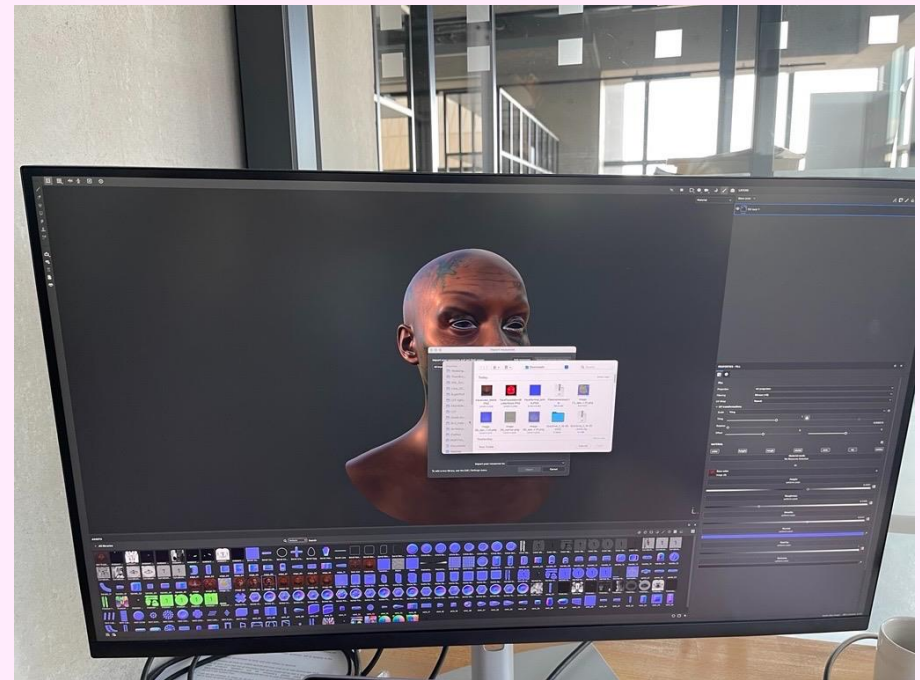
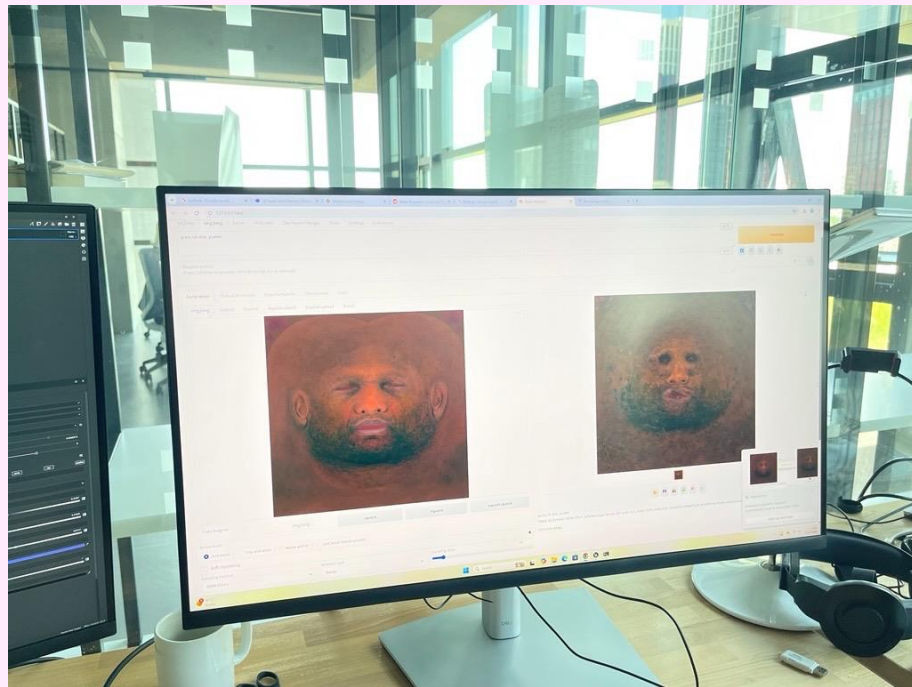
xR NetwOrk+

Ben Turnbull 16/04/2025

ual: london college
of fashion

7. AI and Iterative Design Practice

Platform: Stable Diffusion and Substance Painter



Potential Future Platforms for Teaching and Learning

- Runway.ai
- Vizcom
- ComfyUI



AI tools to express your creativity

A solid set of features that will help you create your best designs.

