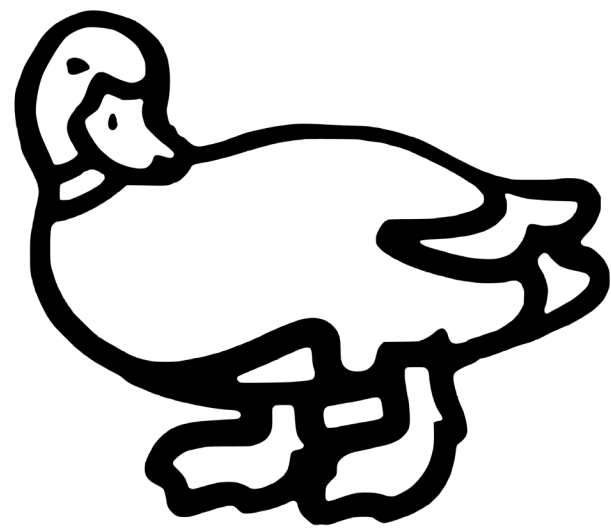


Unit1-4

Methods of iterating

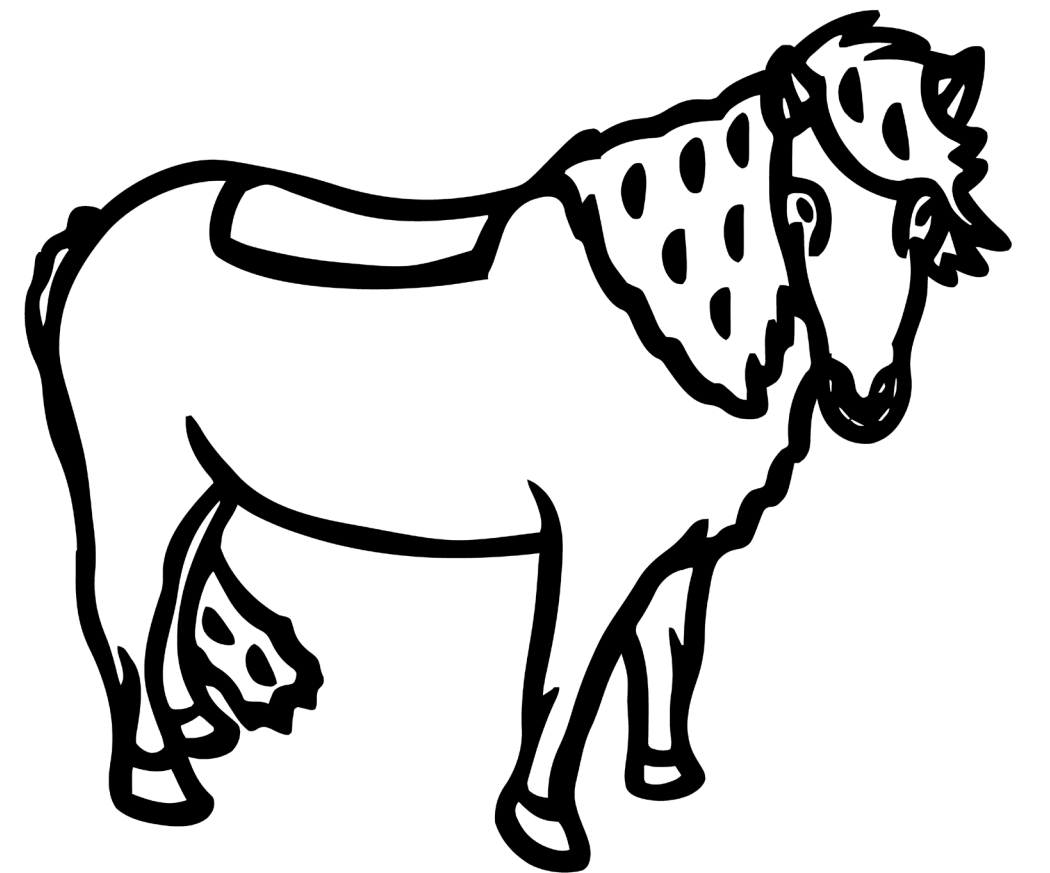
I've spent the last week experimenting and iterating from 3D to 2D. During this time, I learned how to adjust the lighting in Blender and achieve my desired effect.

This week I don't want to do a lot of experimenting, I'm going to make some very, very simple things and then use the same 3D to 2D method to make them.



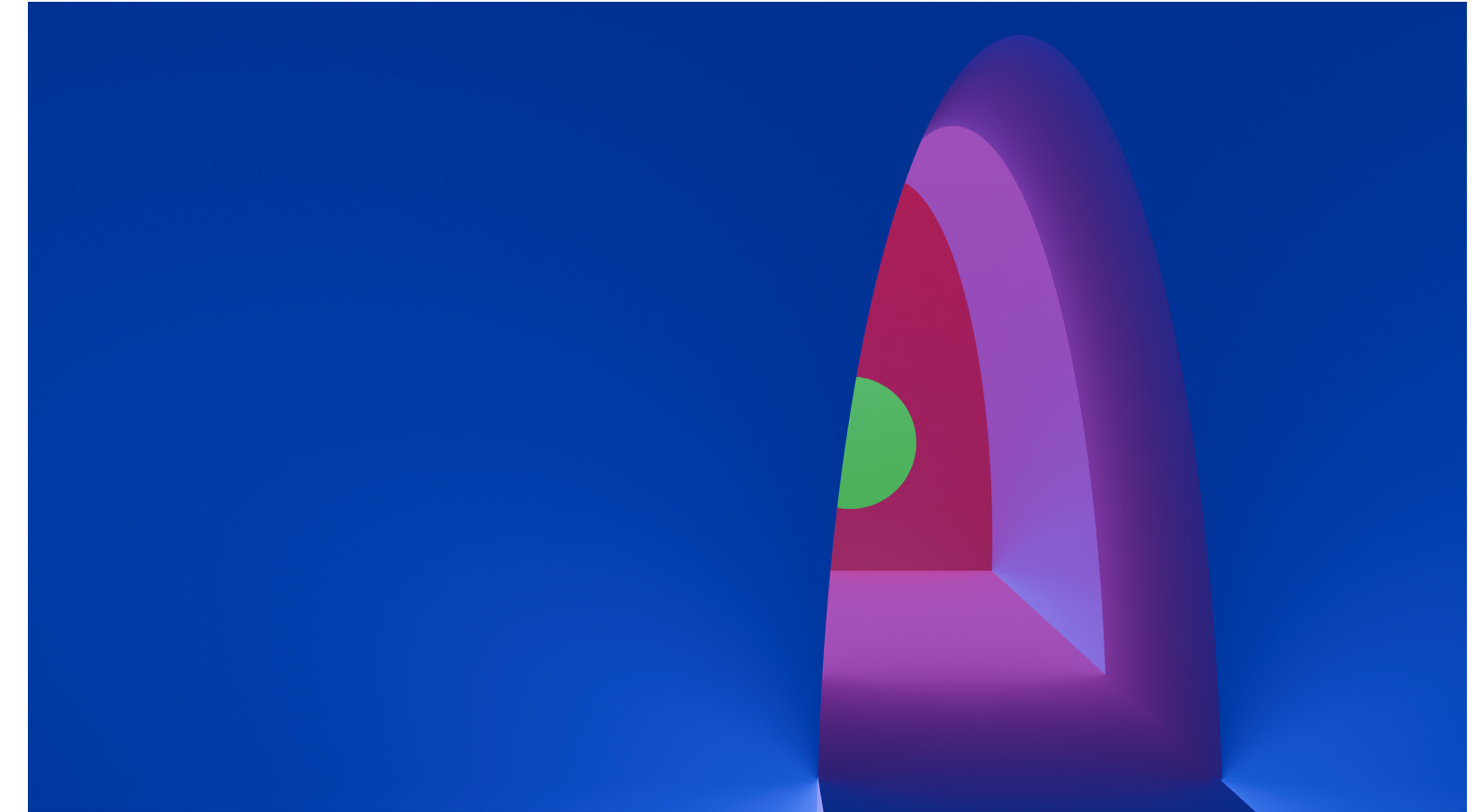
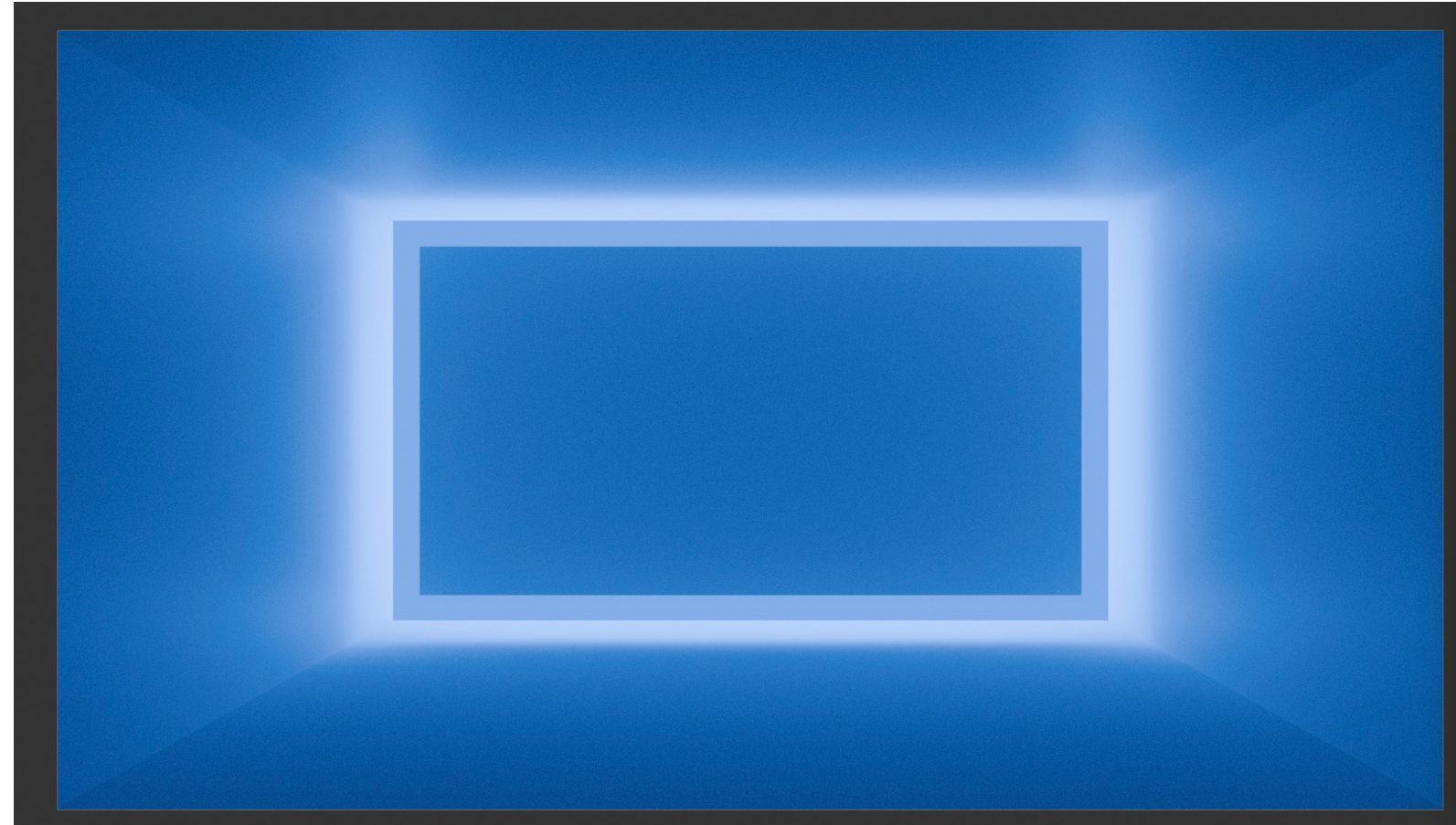
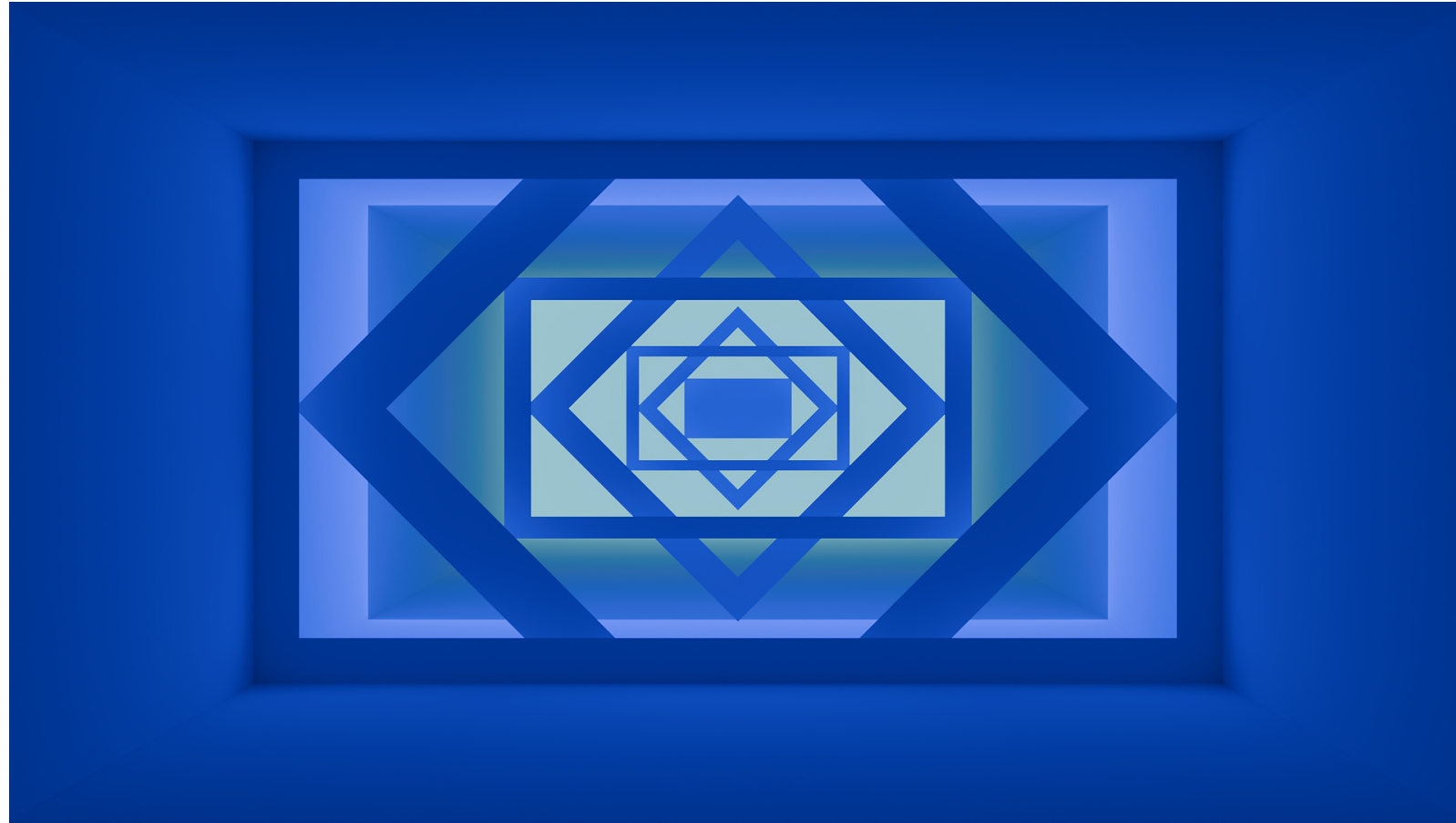
Blender

week-3



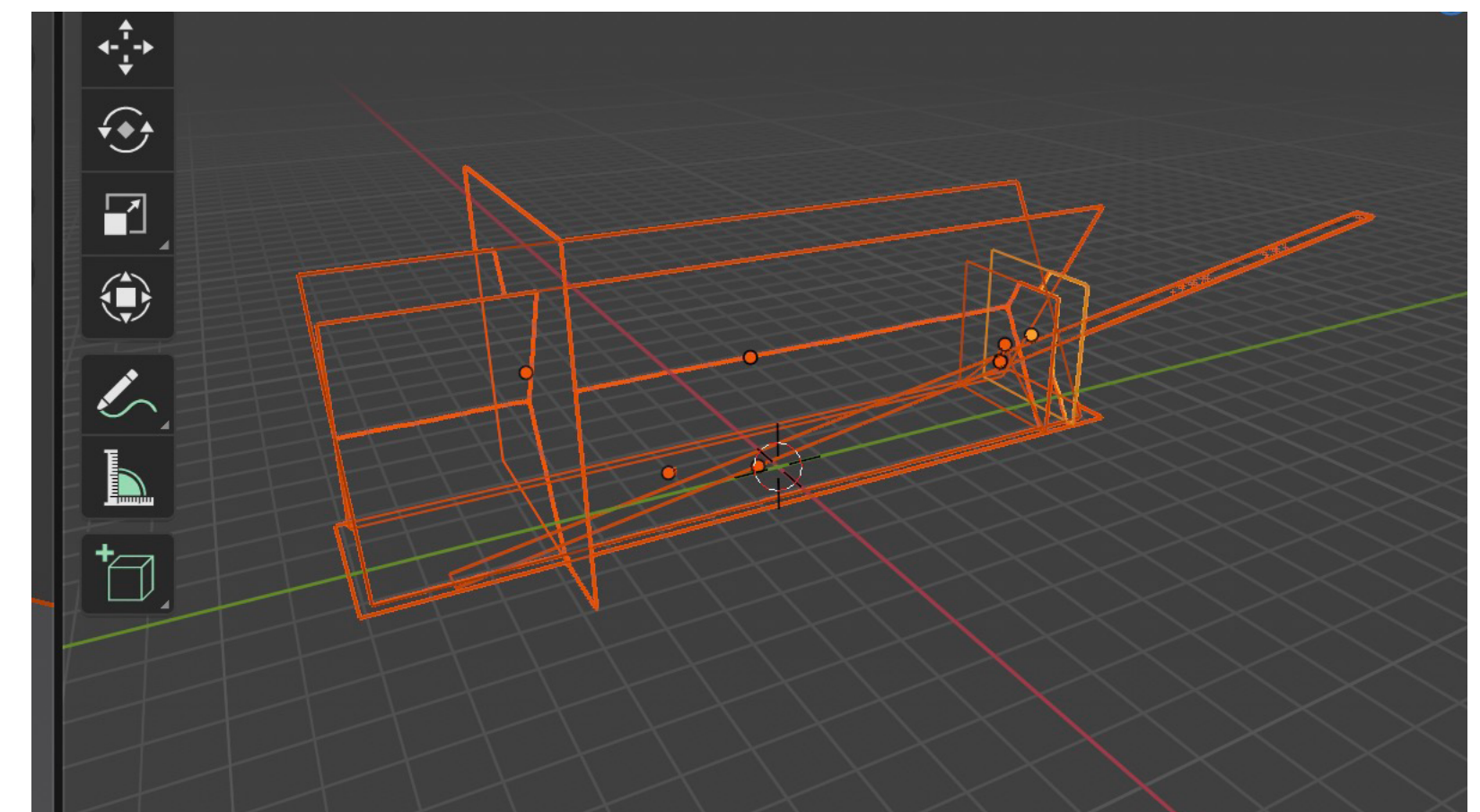
From last week

28/JAN/2025

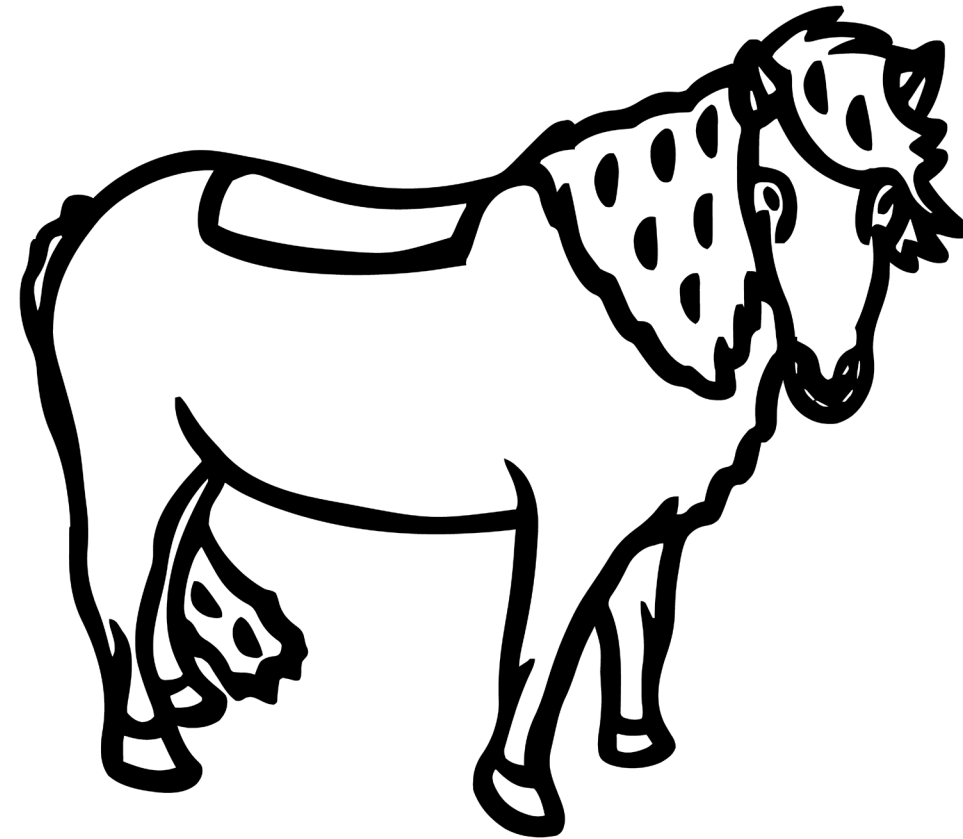
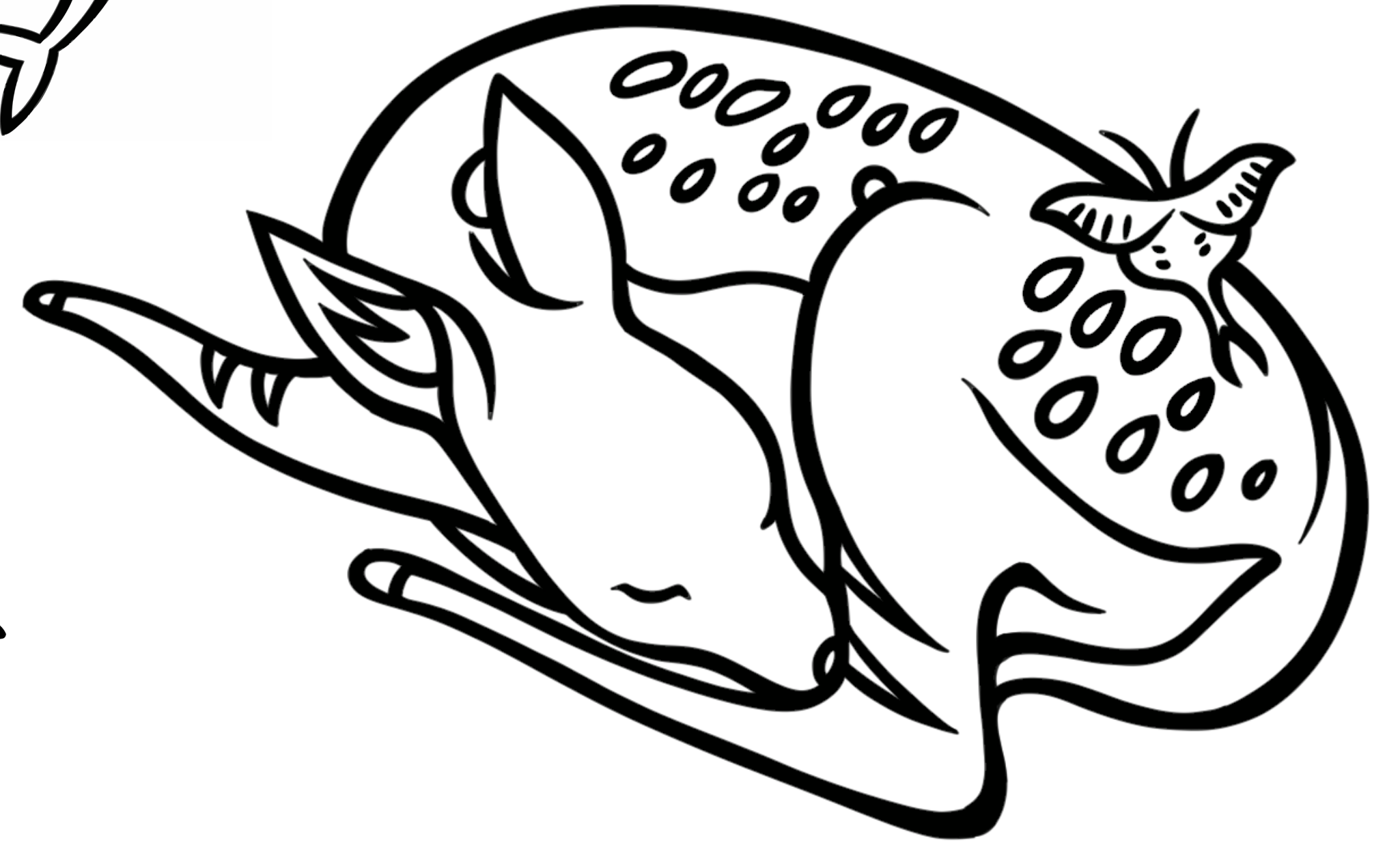
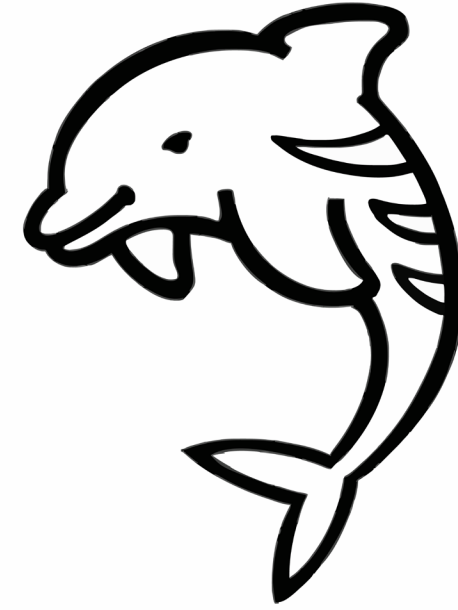
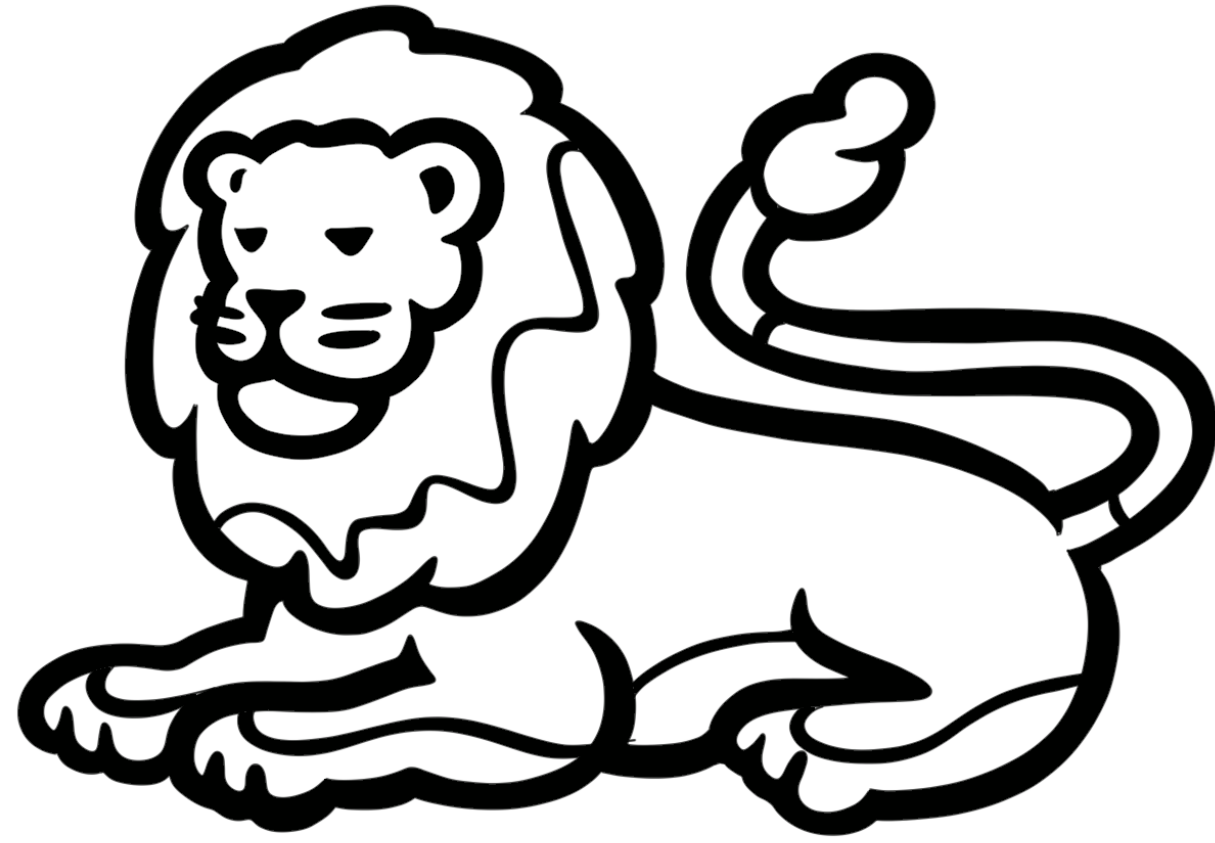
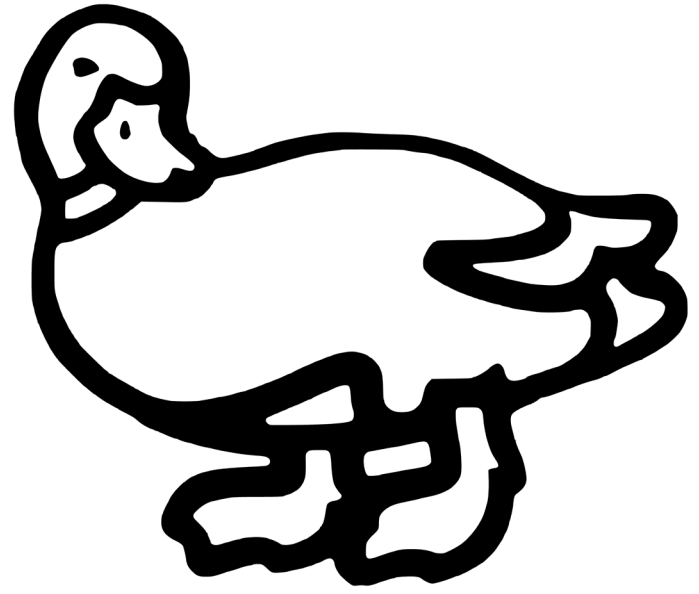


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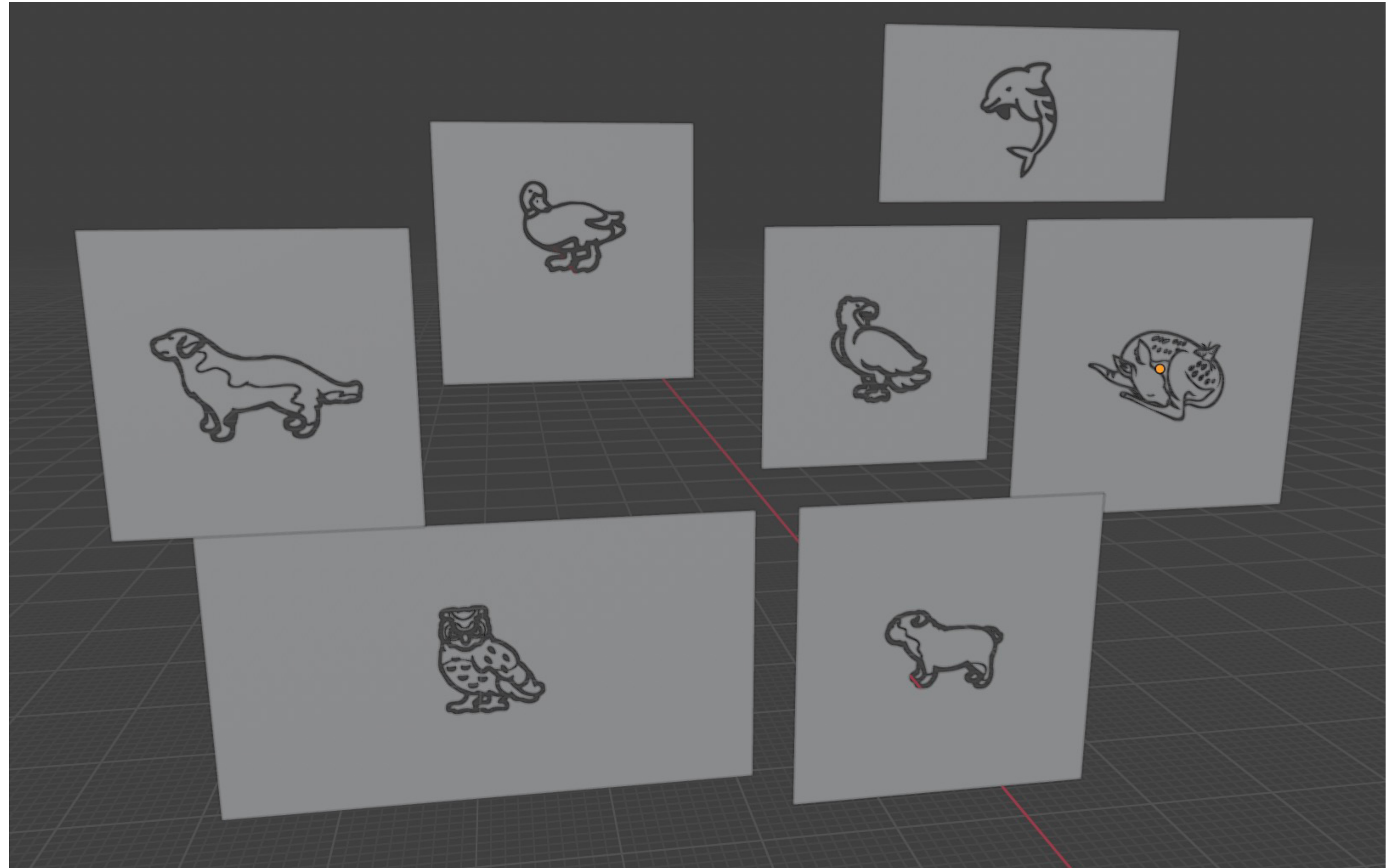
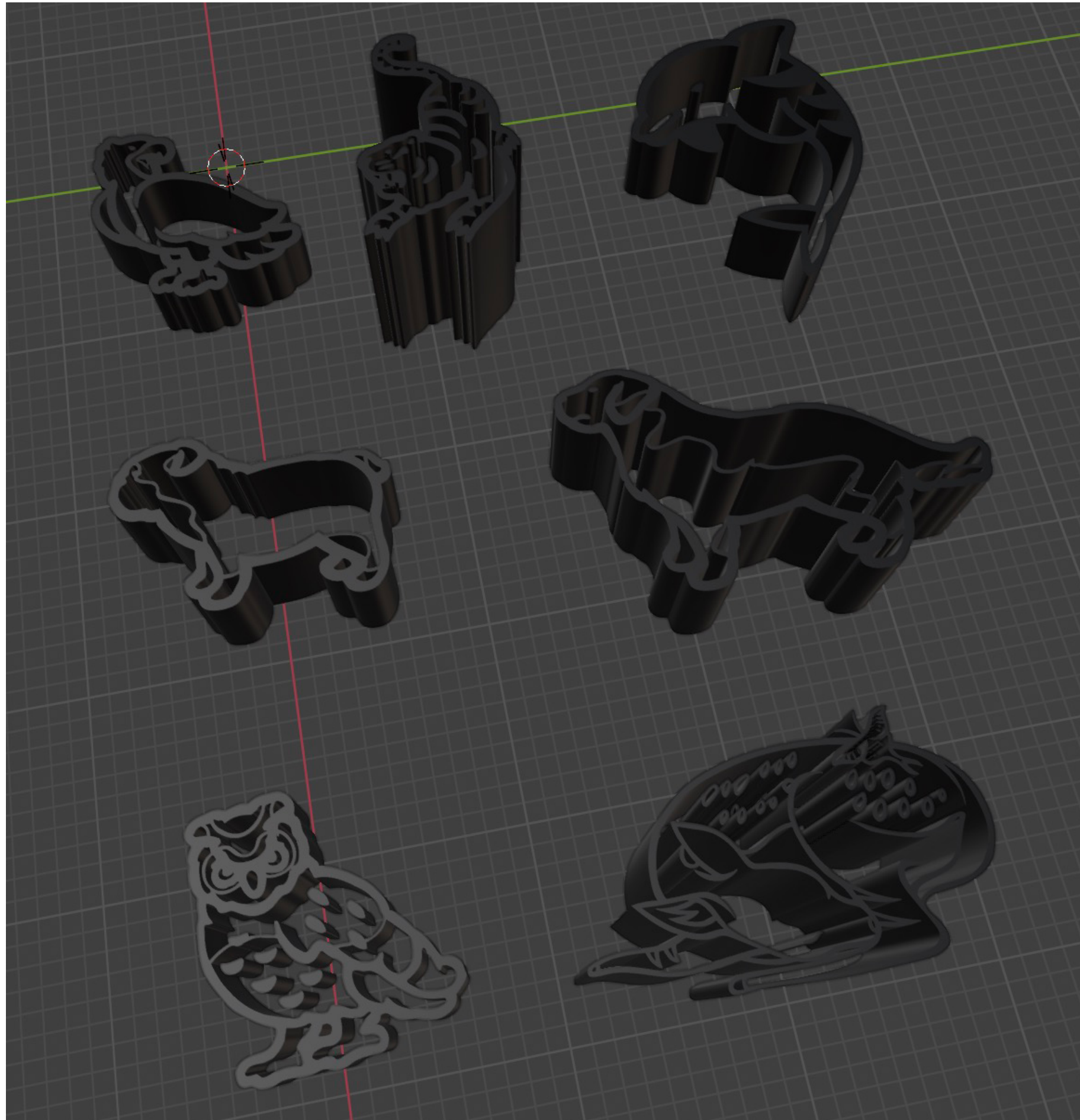
This week



I drew some simple illustrations of animals and then I plan to color them in a blender using the 3D to the 2D method I invented. This step is to verify that the method I invented works, as well as iterating backwards for continuation, rather than waiting for a result to happen.

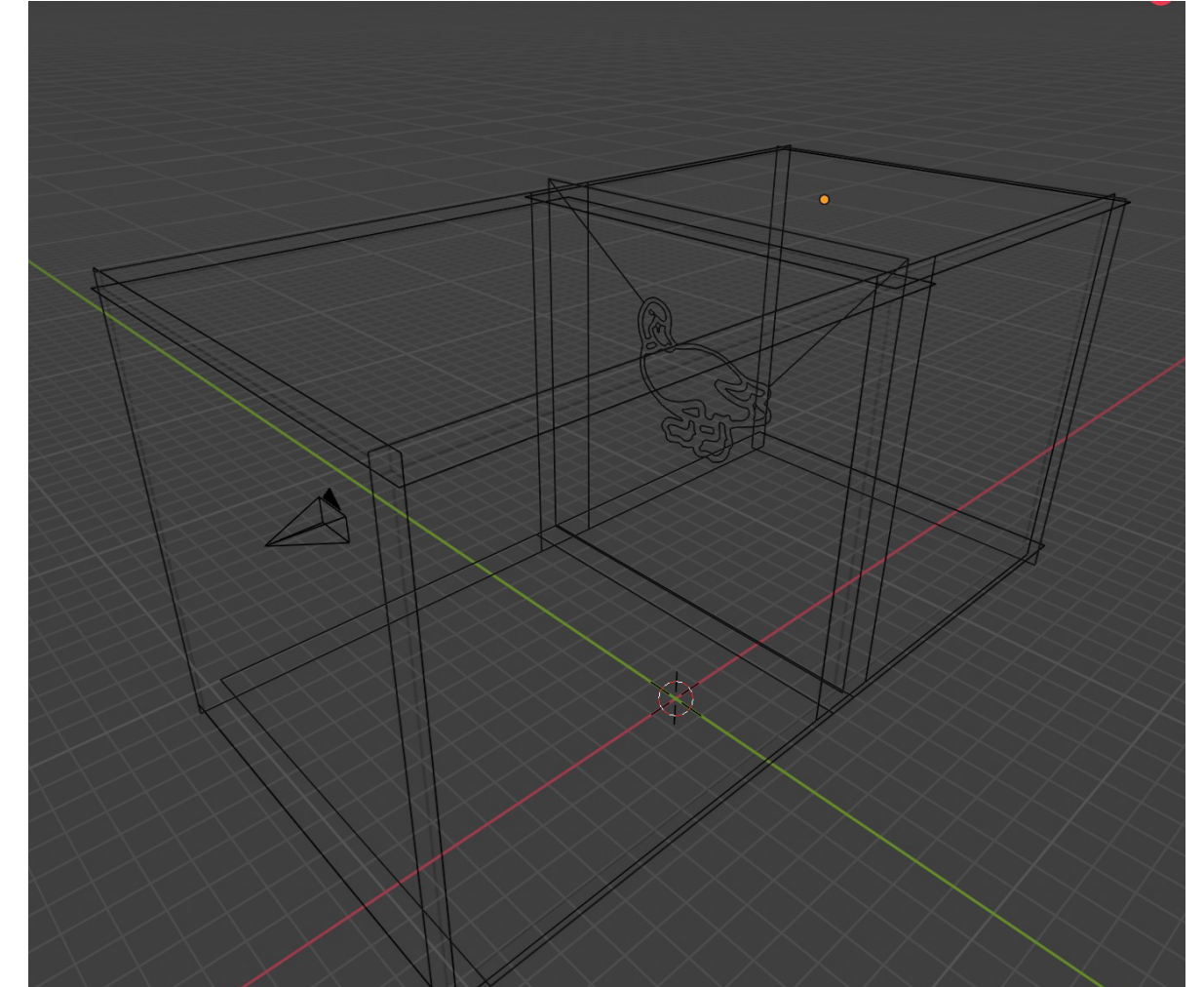
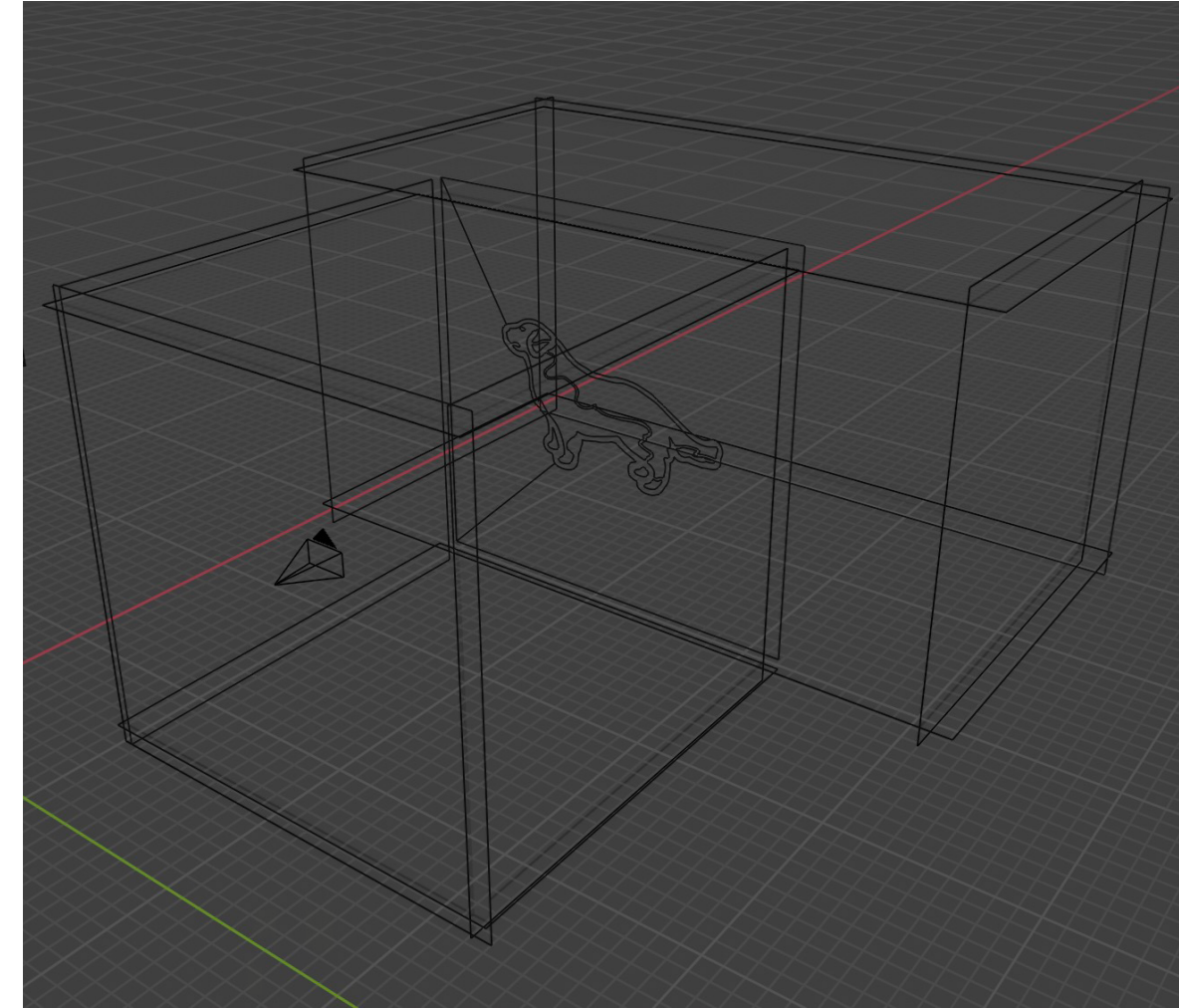
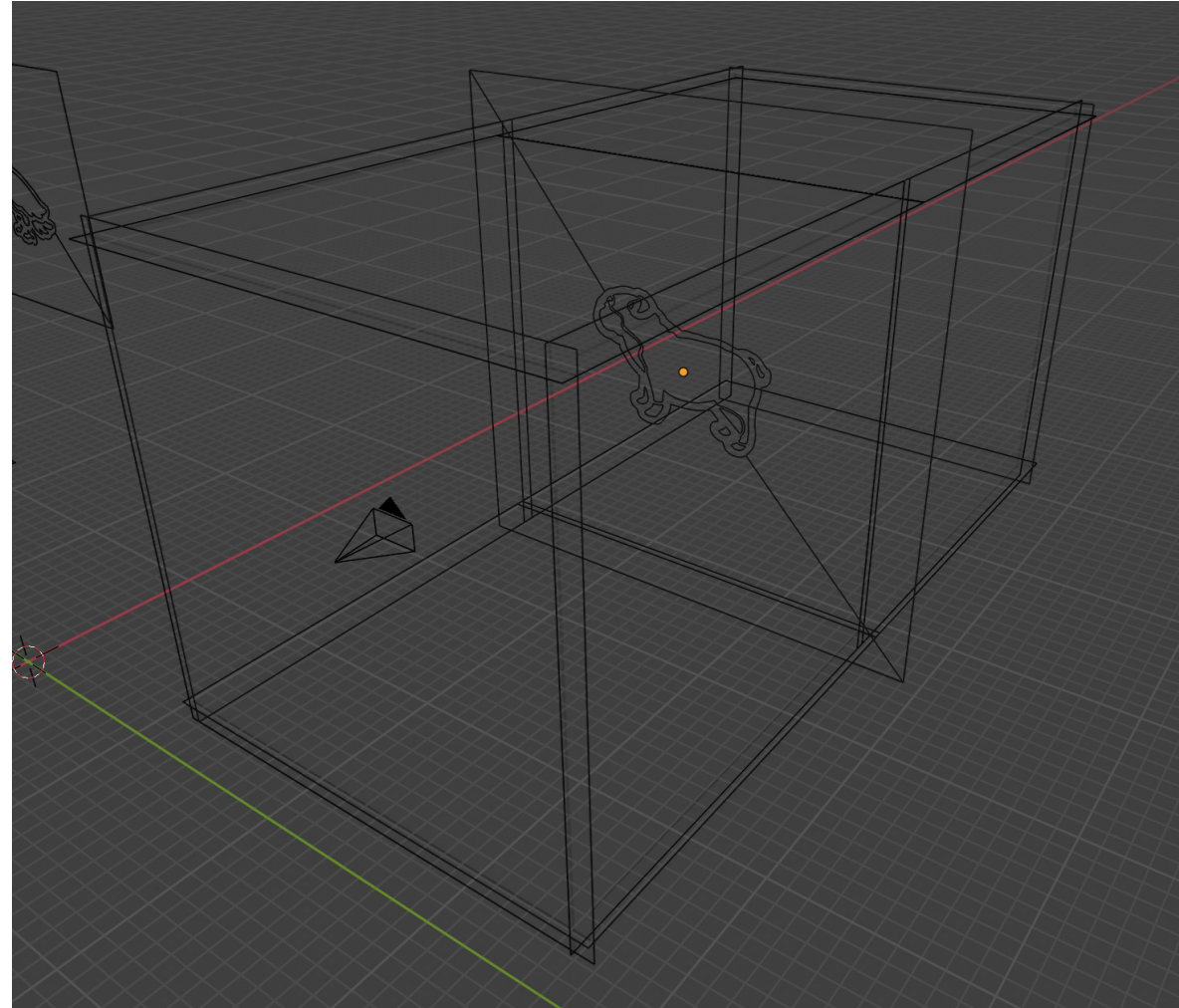
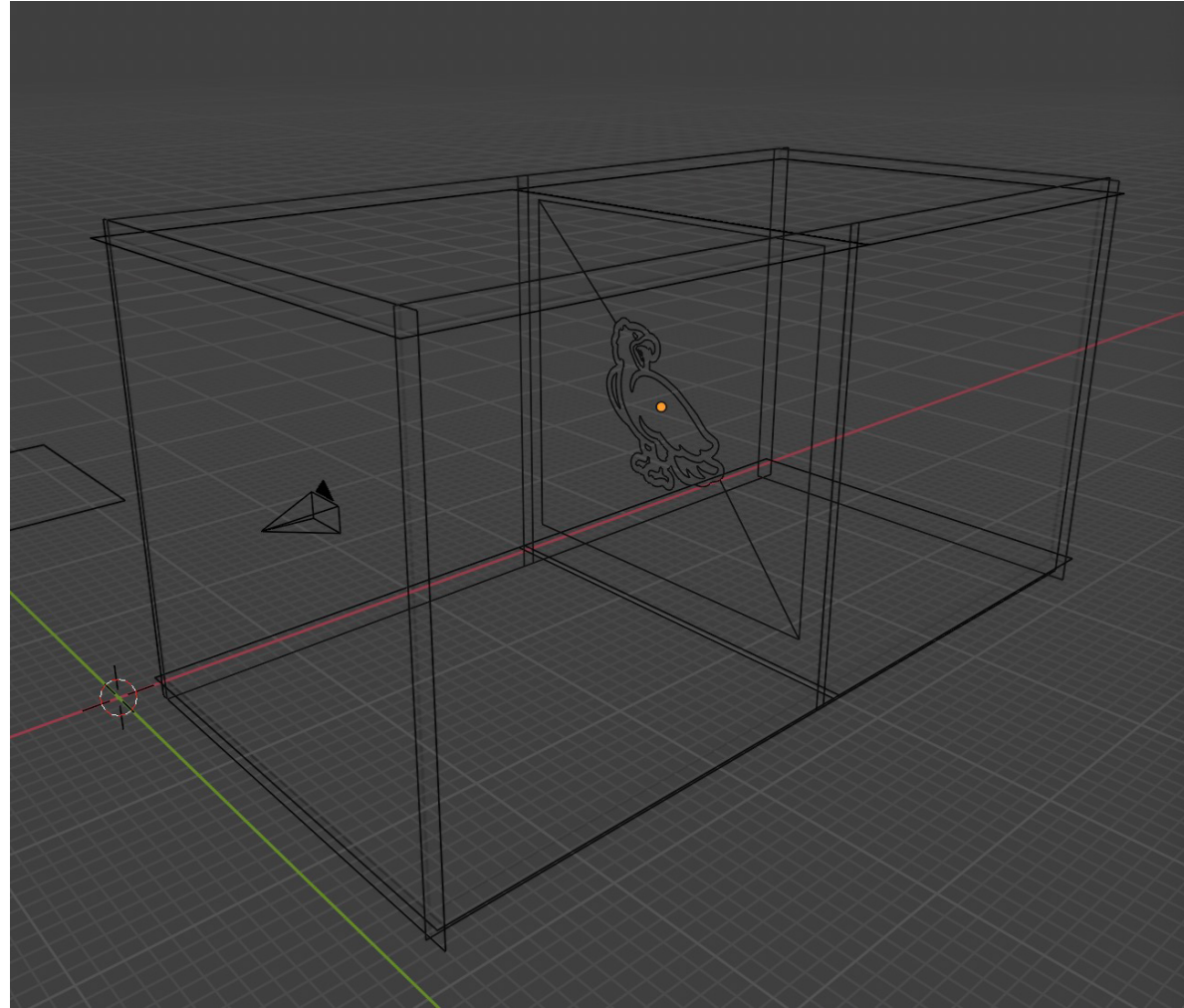
3D

1 2 3 4 5 6 7 8 9 10 11 12



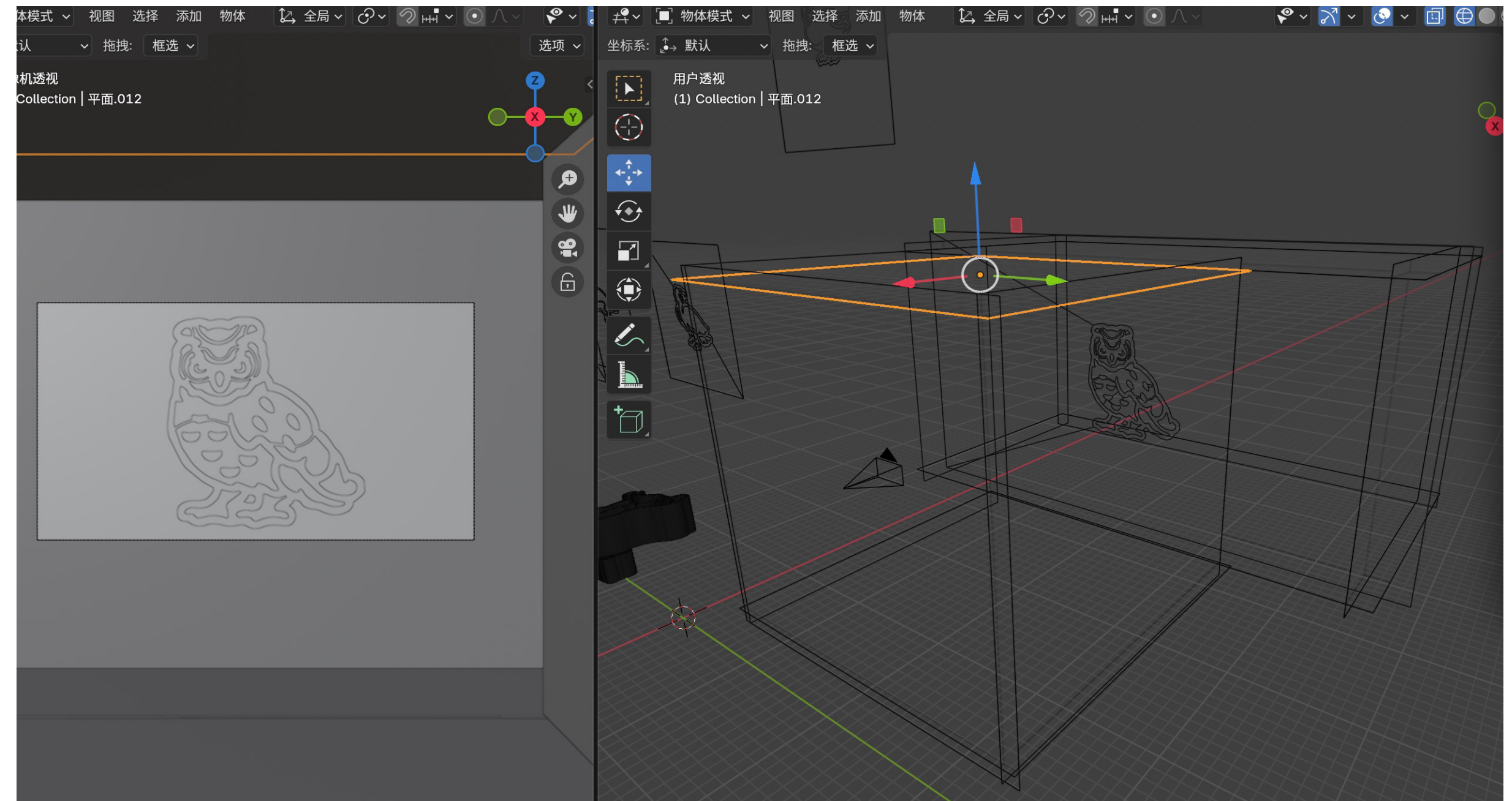
I then took these drawn shapes in a blender, modeled them, and combined them with some graphic cutting techniques to cut out the skeleton parts to look like the picture on the right.

Process

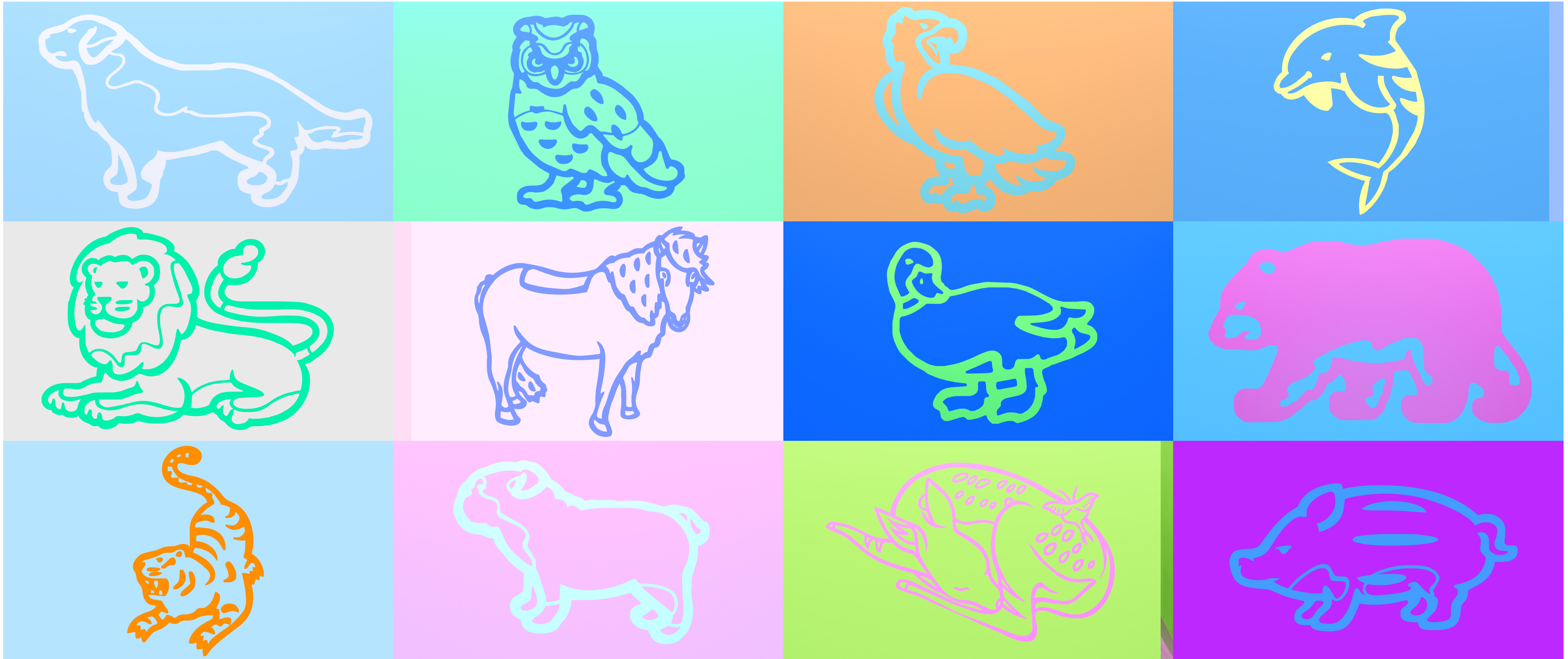


I created two empty box-like objects and placed flat surfaces that could be illuminated on them, then placed the hollowed-out object in the middle so that the front and back of the illustration each had a color.

From the camera's point of view, this is no different from a flat illustration, it's the colors that matter, not the graphics.



Results



The result can then be seen as some very flat 2D shapes, which is like doing a screen print, and could conceivably be iterated infinitely by adding more layers to make it look like a painting. This will never lead to a result, so I'm going to let it end as a process.

Firstly to answer the question.

When I finished the reproduction of this work, what surprised me was that I didn't expect Blender to reproduce the scene analog. Light-related works have to be structurally rigorous, light is a very soft and easily changeable medium and usually requires a clear framework to show the effects of light.

In the case of not having enough venues, I think Blender is the best choice to restore James Turrell's work, it provides a large number of parameters to assist the effect of light, I think if there is a chance to show the conceptual design drawings in a blender, it is a good choice.

The technical challenges that come with it are almost all, I started to learn from cutting the model to adding light effects, and finally modifying the model and parameters, it's a lot of work but a lot of rewarding.

I think a blender is more suited for working with 3D models, but after this experiment, it can also come in handy to aid conceptual design.

Its relation to graphic design is my biggest takeaway this time, this Aten Regin by James Turrell, can be completely restored in AI or PS, and it is the fastest. But it would have lacked a sense of immersion, a spatial narrative effect, and would have thinned the piece out. The final visual presentation looks like a flat work, which inspired me about the possibility of using 3D software to try to make flat works, as well as to broaden the connection between the two and enrich the boundaries of graphic design.

3 Mechanical, Natural and Critical Evolution

Contrary to some theories, both design and nature are radically traditional; they work with subsystems which have existed in the past. All creations are initially *ad hoc* combinations of past subsystems; “nothing can be created out of nothing.”

The first bicycle and automobile were made up from *ad hoc* parts; after their subsystems were refined and highly interrelated, these vehicles reached a relatively stabilized norm and the end of an evolutionary series. They became non-*ad hoc* or totalistic.

Organic evolution proceeds by combining and modifying subsystems through the medium of genetic material. By these combinations the subsystems exert a certain restraining force—a “multivise”—which allows only several evolutionary possibilities.

However, natural evolution and its few possibilities are not necessarily beneficial for men. We must project forward many possible trends, not just mechanical and natural ones, and then dissect apart their positive and negative consequences, recombining *ad hoc* those totalities we desire. Dissectibility is the essence of ad-hocism and critical evolution; contrary to the Romantic poets, we murder *not* to dissect.

(31) *Russian prefab house* being flown to a new site. When cut at the proper joints, the environment, like a chicken, falls into edible pieces

(32) *Roosevelt Field Shopping Center*. Monolithic developments carry positive and negative consequences without distinction. The economic advantage of mass shopping has not been dissected from the disadvantage of ecological overspecialization

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Jencks, C., & Silver, N. (2013). Adhocism : The case for improvisation. MIT Press.
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For reading material, I chose the book Adhocism: The Case for Improvisation, in which the main discussion is about the use of Adhocism in design, and I guess to a certain extent my experimentation with lighting, is also a form of improvisation. Building a model without knowing the result, then rendering it to get the result. But from the beginning, I didn't know what the result would look like.

Iteration is a method of design and a means of rapid renewal, focusing on the process of the designer's behavior rather than the result. In this week's iterative experiment, I tried to first choose different shapes and then discuss them separately, such as triangles, rectangles, squares, and so on. Then try the lights separately and keep adjusting the parameters and iterating. The advantage of this is that one never knows what the result will be, and there seems to be no end to it.

And improvisation emphasizes the concept of ‘collage’ and ‘combination’. Laying out different panels for editing in Blender, and using the shader editor to adjust their parameters, is essentially doing this process of improvisationism.

By modeling in 3D and translating into 2D visuals, I draw on James Turrell's approach to light. This process is not only a simulation of physical space, but also an improvisational experiment - a constant tweaking in modeling, rendering, and post-processing to find the best visual effect. The improvisationist mindset helps me to construct spatial and emotional images with minimal design language, given the limited technical conditions. This approach provides a new way of thinking about the transition from 3D design to 2D visual expression and expands the possibilities of graphic design.

Mechanical, Natural and Critical Evolution

A simple line drawing of a cylinder, representing a 3D object. It consists of two horizontal ellipses connected by two vertical lines, one on the left and one on the right.

-3

From 3D to 2D:

Firstly to answer some questions

When I go to create text with Blender, basically the content doesn't change, but to some extent, its visual experience is changedw.

In this week's iteration, I didn't want to make some very complicated tweaks or attempts because I found that there is no end to iteration, so I wanted to identify a method or process and then go for a lot of replication to prove the reliability of the process and then let it end as a process.

I experimented with Blender for effects such as skeletonization and light shaping to convert 3D structures into a 2D visual language. This process was originally intended to explore the relationship between light, shadow, space, and graphic design, but in the course of iterating, I came to realize a central problem: it has no clear endpoint.

In the early stages of the design, I wanted to generate complex visual effects through 3D modeling and maintain a sense of space and depth in the 2D form. However, as I experimented further, I realized that the process itself was endless - the parameters could be tweaked indefinitely, the light and shadows could be optimized, and how the skeletons were hollowed out could be varied endlessly. Each modification brings new possibilities rather than a definitive state of completion. This 'endless exploration' made me realize that instead of striving for a final 'perfect image', I should treat it as an endpoint of a phase, acknowledging the openness of the design process and deciding to stop at some point.

Therefore, I chose to 'simplify' the design in the third draft. I have reduced redundant adjustments, made the relationship between light and shadow more direct and the openwork more orderly, no longer trying to find the most 'precise' expression, but allowing the work to retain traces of exploration and become a slice of the process. Simplification is not a compromise, but an acknowledgement of the process - it is no longer directed towards an ultimate goal but becomes a part of itself.

As the text and visuals combine, I also wonder: does the meaning of design change when it becomes a process rather than an outcome? If the initial search was for a definitive answer, I now embrace the uncertainty itself, and the transition from 3D to 2D is not just a shift in form, but a shift in mindset - from construction to refinement, from experimentation to acceptance, from pursuing an endpoint to allowing for openness.

This final draft is both a result and a stopping point in the process. Stopping doesn't mean the end, it makes the next exploration possible.

