**Written Response 4**

**Methods of Iterating**

**First Draft:**

The work I copied is a 3D work by Livia De Magistris. Livia De Magistris uses 3D software to create organic sculptures composed of blocky bodies and eccentric devices. The irregular shapes and rich colors of these sculptures attract me. Last week, I tried to sculpt the model and draw the model map using software.

In the first step, I focused on constructing the basic shape of the model, using various sculpting brushes to achieve different effects. Because when I sculpted the model in Nomad, I found that the model often broke. Blender was then used to refine the model, making further adjustments to the number of polygons and enhancing the details.Finally, I added color to the model, and created UV maps in Nomad.

In the process of sculpting the model, I captured different angles of the original work, copied the shape characteristics of the model, and drew maps at different angles. Again, I need to observe a model constantly during the process. I have never tried to observe a single model from different angles so carefully.It led me to reflect on whether a design could integrate elements of high and low quality—such as low-poly models with high-resolution textures, or high-poly models with low-resolution textures.  Is there a point of balance between them for visual creation.

**Second Draft:**

In this course, I try to explore the relationship between "spatial complexity" and "visual accuracy". I use apples as the research object to explore the relationship between high-resolution textures and low-quality models. I downloaded a high-quality apple model with a high-quality UV texture map from sketchfab. I got the UV layout After expanding the apple model. I simplify and rebuild the apple model by using the blender.

In this process, I tried to redefine the "faces" of the 3D model as 2D "pixels", challenging the idea that 3D modeling is mainly used to build and simulate the real world. In 3D modeling, polygons determine the complexity of the shape, while pixels in 2D determine the visual details. I tried to rebuild the UV layout of the model and restrict the texture conditions. This is part of a series of visual experiments that I modified the UV layout of the original model. The original UV of the apple had triangular faces. I changed these faces into quads. Then, I further adjusted the order and direction of each face to make the UV layout into a square grid, making it more like pixels.Polygons in 3D models can be used as symbols and become tools to express abstract images and graphics. In visual exploration, the process is more important than the result. This approach not only redefines the function of 3D models, but also creates opportunities for the development of abstract visual language. This reminds me of the "Conditional Design Manifesto", which states that design should follow rules and conditions to allow forms to emerge naturally (Maurer et al.)

3D modeling is not just about replicating reality, the model itself can also be a medium for designers to convey abstract ideas. I hope to continue exploring the relationship between real models and abstract models to create a flexible and open visual language.

**References**

Maurer, L., Paulus, E., Puckey, J., & Wouters, R. (2013). *Conditional Design Manifesto*. In Conditional Design Workbook. Valiz.

**Third Draft:**

*Visualizing Meaning: Transforming 3D Model Faces into Symbolic Elements*

My research explores the interplay between spatial complexity and visual precision. I seek to explore and redefine the relationship between faces and pixels of 3D models. I ask the question: “Can the mesh faces of 3D models replace ‘pixels’ as visual elements in graphic works?” Using an apple as an example, I reduced its polygon count while retaining the high-resolution texture. Through this process, I rethink that UV mapping is not only a means of applying surface texture, but also a visual structure for organizing visual information

To further explore this idea, I added punctuation marks to each face of the model, turning it into a symbol system. I began to think and imagine that these faces are not only components of the model, but also a kind of image meaning. For example, a period (.) indicates an end, an exclamation point (!) indicates urgency, a question mark (?) indicates uncertainty, and an ellipsis (......) creates a sense of anticipation. By reorganizing the UV layout and adjusting the position and number of these symbols, I integrate geometry into the visual model framework and try to present its effect through the form of a poster.

*Redefining 3D Modeling: From Form to Symbolic Representation*

This experiment reconsiders the traditional idea that 3D modeling is mainly used to replicate real-world objects. When punctuation marks are mapped onto model faces, the model faces transcend their structural function and each face of the model becomes an element of 2D visual meaning. This process transforms 3D modeling into a system where UV maps, shapes, and textures are related to each other to create a new visual language for organizing symbols.

In this course, I explore how 3D design can go beyond realism and foster an open-ended, conceptual approach to symbolic representation. Design is not purely driven by results, but follows rules and conditions that determine the evolution of design. I think this is a very interesting experiment and this idea can be applied in different contexts. I will continue to explore this project and find new visual languages ​​that balance models and pixels.

**References**

Maurer, L., Paulus, E., Puckey, J., & Wouters, R. (2013). *Conditional Design Manifesto*. In Conditional Design Workbook. Valiz.