Self Assessment

- **Time Spent:** Since I have no previous experience and even knowledge about coding, I think I have spent more time reading the textbook and watching Daniel's videos over and over again, rather than actual coding. Although for each assignment, I spent about one week to brainstorm in my head, while I am working other classwork, and eventually spare 1-2 full day sitting in front of the computer and code. As for the quality, I think I have a good grade overall, despite of two or three B level works, and I am satisfied with my self for these three months' of "love-and-hate" experience with coding,
- **Success:** I used to feel lost and did not know how to start coding, even though I feel like I have an idea in my head. However, I realize that it is not because of my beginner coding skill, it is because my idea is not as detailed as it should be to be able to be coded. Coding change the way I ideate, and also push me to visualize an idea step by step. In other words, I need to do lots of quick try and hard code as well as basis for further refine and development.
- **Frustration**: Structural design is difficult, and I think it is not so hard to achieve a function if I hard code it out, but it is uneasy to plan the coding structure — a.k.a what should go into the bigger loop, and what should be in the smaller loop and how should parameters being passed around. The second frustration is that I have trouble understanding lots of concepts. I always feel like I am waling on the ice surface when I code in Processing or P5.js, because I don't know what it laid underneath the surface. I find it difficult to digest the code like a computer does, because I have no idea how computer translate our code into binary languages. Therefore, I have asked lots of my friends who are in CS major, and get some fundamental understanding of the computational mechanism. (I really have a hard time understanding what a "return" mean, and now I finally get a sense of it though not fully comprehend yet)
- **OOP & Procedural Programming:** OOP is convenient if we are creating lots of prototype, or project that might involved reputations. It is easy to copy a block of code simply by creating another instance, but Procedural Programming is more linear and more friendly to beginner.
- **Final Project:** I have played around with array and array list in my final project, because I want to control different layer of animation and graphics, while Processing has only one layers called "draw function". Therefore, I have to create lots of array to store previous data, where I solidified my understanding of Processing itself and also the usage of array and parameter. I only use a couple Chinese characters as my imported media, and a geometric tool as my imported API. I worked on different combination of functions and math a lot. The second takeaway is that I have learned to passing parameter in a more flexible way, where I can associate almost all the parameter in my code in the way I want. I consider that comfort of handling and controlling all the data in my code is a breakthrough.
- **Debug:** I fixed all my bugs during the final project. I think it is important to spend enough amount of time and tackle down one function at once, rather than do it in several days. Fixing the bugs is like fixing your own logic flaw. Therefore, I have to spent time and really get into the "flow" and run the code in my head, so that I can kind of expect where the bugs might happen. If I do it in several days, I will need to learn and pick up my code every single time, which is not so efficient.
- **Further:** I think I will definitely working on programing in the future due to my interest in creating, logical reasoning and math, I really enjoy the process of finding solution and appreciate the moment that I finally did. I wish there can be more sessions for advanced creative coding class, and I would like to explore other medium other than software.

Document of Final Project

Concept Paragraph

This is a piece demonstrating the evolution of Chinese hieroglyphic characters, where they are becoming more standardized and easy to write as time passes on. It is also an interactive piece that users can view the evolution from a 3D dimension and observe the change from different angles. The tangent lines are created between each changeable knots on the characters and users' mouse control, which present the complexity of connections between characters and human interactions. Also, users can click to see its' meaning in English in alphabet letters, where I adopted an contrasting color in order to show the interruption of different cultures and alphabet system, as Chinese are leaning on its alphabet pronunciation these days. Therefore, I want to question and explore the interruption of phonographic alphabet to traditional hieroglyphics.

ps: I think this final project has not fully expressed that idea. I also think this is a fun and also meaningful art project to keep working on, so I really hope to push it further by adding sound and historical materials during the vacations.