Project documentation
——Eight Views of Xiaoxiang

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Part 1 : project topic
Part 2 : Inspired artists and their works
Part 3 : Technic and Tools
Part 4 : Execution and achievement

(choose one of them——"river，sky and evening snow" as example)

Part 1 : project topic

My project is a creative programming piece with a theme of " Eight views of Xiaoxiang ". " Eight views of Xiaoxiang " is a collective term for a series of scenic places in Hunan, China. It is also a popular art mother subject of thousands years in China and even the whole East Asia. Many painters and poets are using this theme to create. " Eight views of Xiaoxiang " is first used in the Northern Song Dynasty Song Di painting, he titled each view expressed in a corresponding name respectively. And these eight names have been passed until today. However, "Eight views of Xiaoxiang" has always used traditional painting methods for visual expression in China and they have a very "ancient image" and I want to give them a new possibility in modern way. The expression I use is creative programming. Creative programming is a general term for the artistic creation of computer programs. The artistic creation with computers was initiated in the 1960s. Which I believe can rejuvenate the "Eight views of Xiaoxiang "vitality in the present and create their communication with the contemporary.

I appreciate the beautiful scenery rendered by " Eight views of Xiaoxiang " and even advocate their spiritual connotations. They were carefully observed by the ancient people for the nature and I find they are all momentary views with some natural element and super fitly to use program which is geometric, animated, interactive to express. And My project strengths on those moment, changing them, recreating them and preserve them and let my audience know that they just can join me to creat the right moment view,   it is a short but eternal view.

Part 2 : Inspired artists and their works

1) Vero Molnar's geometry pieces

Vera Molnar is one of the pioneers of computer and algorithmic arts Trained as a traditional artist, Molnar studied for a diploma in art history and aesthetics at the Budapest College of Fine Arts. She iterated combinatorial images from as early as 1959. In 1968 she began working with computers, where she began to create algorithmic paintings based on simple geometric shapes geometrical themes.

I am inspired by her geometrical artworks, which make me think that the different types of geometric and they are simple, beautiful and full of visual power.
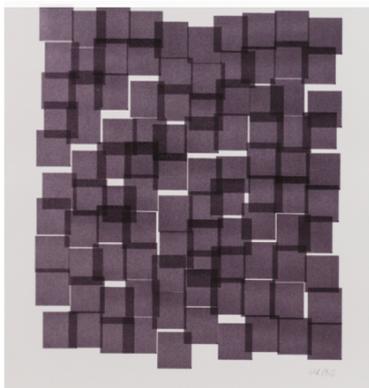
People on the Fly is an artwork made by Christa Sommerer and Laurent Mignonneau. 2016.On a large scale screen there is a developed participatory public artwork where passers–by can see themselves and also be turned into a swarm of flies. A specially developed software detects all moving persons and communicates their data to artificial program insects. When a person moves, within seconds hundreds of flies invade his or her body, but when he or she stands still, the insects fly away. The resulting image scenarios are in constant flux, they construct and deconstruct, and people become visible and disappear again within a swarm of insects. People on the Fly celebrates the ephemeral moment and the hustle and bustle of everyday life, where only standing still for a short moment makes one see one's own image clearly.

This art piece gives me a great impression on the application of particle system in my project. In this project there is a combination of video of real world and the particle system , the virtual one, I think this is a clever way to make some interaction with the audience .this work let me think about that I am going to try use the particle system together with the video or image compose my project' basic way of technic idea.

3) *Ghost Pole Propagator II* by Golan Levin

I really like this work, which was made by Golan Levin in 2016 who is an artist, composer and designer whose work focuses on new modes of interactive audiovisual expression. And it is based on his formal version in 2007 of Ghost Pole Propagator which is an interactive installation originally developed for projection in the 13th century Belsay Hall Castle, in Newcastle, England as part of the Picture House exhibition with a catalogue states: "Levin's new interactive installation presents a phantom transcription of visitors to the Belsay Castle, recording and replaying highly abstracted 'skeletons' of the artwork's own observers. Projected on the walls of the castle's medieval kitchen, the quiet and otherworldly animations suggest the bustle of past ghosts, or ancient petroglyphs." And in this 2016 version II, the project has been reimagined at a significantly larger scale, and rendered with the perceptually remarkable light of laser beams.

First ,there is a big involvement for the passerby. Participants see their own stick–figures, mirroring their movements. At the same time, they also observe the animated stick–figures of previous participants, whose movements had been recorded moments or hours earlier. It make great fun to the people around. Second and more importantly, it produces just the skeleton，and this artwork show a great respect to the audience because there is no problem of privacy and eventually allow participants to join without hesitation or fear. This Piece give me the idea about solving the problem of how to simplify the graphic belies their emotional force and eliminate unnecessary details and reducing visual elements to their absolute essence about my project.

Part 3 : Execution and Technic

I use the Processing as my main programming tool and also P5.JS is used. And the program I use the opencv library

as a reference.   I upload one ancient painting and one same view of modern picture as the main view structure , and   by applying opencv optical flow , I can get the audience optical flow .If the flow strong enough , there will generate particles which fill from the background —ancient painting ,viewed as the "snow" dropping down,   but are controlled by the audience movement, it seems like that there is a wind controlling the "snow" and reproduce the nature view but include both ancient and present . I am also thinking about to change the ellipse "snow " to some kind of abstract shapes or Chinese letters.

Part 4 : Progress and achievement(choose one of them——"river，sky and evening snow" as example)

this is an story about image interaction between modern view

and ancient painting , and particles with consciousness

- Firstly I upload 2 images, one is the ancient painting about Xiaoxiang——river sky evening snow as the background image, and the other is the modern view with snow of it as the foreground image . Create a alpha channel to make a relevance with this two picture and show the fade out effect of them. It seems the conversation from modern back to the past. And the audience is the bridge between them. When the audience move , there is a "wave " optical flow generated on the alpha channel, then the particles generated. Those particles are filled with ancient painting .it looks like they can "erase" the foreground image by any gestures and see the

past painting.

1.the modern view with snow of this landscape, the foreground:

2.the ancient painting of background:

3.particles generate.

- other try: create a eraser effect . audience can erase

the modern picture and see the ancient picture by any gesture.