About 2 Cubes

3D recreation of El Lissitzky's book 'About 2 Squares'

by Onur Oral

Project Definition

Adapting El Lissitzky's "About 2 Squares" book into a 3d environment.

Objectives & Goals

The project should increase the sense of wonder about Constructivism and the artist of the book, El Lissitzky. Users must get excited about the concept, wonder about the style of art, the story and how El Lissitzky told the story with basic visual shapes.

Like the original book, the project should present a radical thinking of what a book is, demonstrating a new way of organizing typography and relating it to visual images, and show the integration of typographical effects with visuals.

The illusion of transition between 2d and 3d should be welldone, and the project must make people to play with an artwork.

Background Information

This short book, for children of all ages, is perhaps the best-known work of El Lissitzky (1890-1941). The book is Lissitzky's "scientific romance," an allegory of the fourth dimension and its effect on the three-dimensional world. El Lissitzky was one of the Russian artist, architect, designer, typographer, and photographer who was active in the avante garde movement that flourished in Soviet Russia and in Germany, until the dominance of Soviet Realism by 1930 put a stop to its revolutionary activity. He directly influenced the typographical and display advertising innovations of the Bauhaus and "de Stijl". This book entirely integrates modern typographical effects, as Lissitzky intended, with his illustrations in the Suprematist style.

The original book 'About Two Squares' was printed by letterpress, even the slanted text and illustrations. It was first produced ("constructed") in 1920 at the Soviet art institute UNOVIS in Vitebsk, and around April 1922 printed by Sycthian Press, Berlin, by Haberland Printers, Leipzig, in paperback, with 50 hardbound copies autographed and numbered, as the copyright page states.

The main reason why I come up with this idea for this project is my interest in Constructivism and enthusiasm at El Lissitzky's style of art. In addition to that I wanted to make this project interactive in order to increase the sense of wonder of people about Constructivism and El Lissitzky. Also, for my web site, which is about Russian Constructivists, this project leads me to learn more about Constructivism. For me, it is exciting to study on art movements, especially on Constructivism. The web site gets thousands of hits everyday, so this information proves that people are interested in and looking for more information about Constructivism.

The most challenging thing in this project is to integrate 2d into 3d environment, and also to create 3d models. I have no idea how to create a 3d model and to write a code for real-time floating and fps mouse look. I have to learn these skills from zero.

With this project I will be achieve to learn to create an interactive application and learn to integrate both 2d and 3d objects, but most importantly I will learn creating 3d models, coding for real-time rotation and fps commands as a designer. Also, I will be able to use my coding knowladge in this project.

Another challenge will be creating a good looking interface that leads users to understand what to do without any warning.

Target Audience / User
The main target audience is the people who are both interested in symbolic narrative and Constructivism.

Also the project has no age limitations, both children and adults can enjoy the project. While children enjoy the project's playability, adults can enjoy the style of art.

Detailed Project Description

People just stands in front of an artwork and just look at it. This project will let people to involve in the process of making an artwork that had done by a well-known artist, El Lissitzky. To create this I prefer to adapt a 2d printed artwork *(actually a book; About 2 Squares)* into a 3d environment. The idea is that from a computer, users can choose one of the 12 pages of "About 2 Squares", that leads them to see a 3d room which represent the chosen page. In the screen, in the bottom of 3d room, there will be 2d visuals that were used in one of the original page of "About 2 Squares" book. Whenever an user chooses one of the 2d visuals that underneath the screen, the visual slowly slides to top, into the 3d room. While sliding a movie clip starts, in which the 2d visual transforms into 3d and advances to the book's original position but locates as a 2d visual (for example, if the selected object is a square, it transform into a cube in the movie clip but locates as a square in the 3d room). Whenever the visual located to its original position, the movie clip stops and again user can choose one of the 2d visuals from below. This process will be repeated for every single visuals that can be selected. After every visuals located in the 3d room, users will be available to float in the artwork by using keyboard and mouse in real-time. This feature will be repeated for all 3d rooms.

Scope of the Project

Even if the project tells the story by symbolic narrative, it does not intend to make people understand the original book's story. If the user does not know about the original book's story, after seeing project will not make the user to understand the story.

This project will increase the sense of wonder about Constructivism and El Lissitzky, but it will not give any information about the movement or El Lissitzky. The sense of wonder will be increased by the work itself.

Also, users will be able to involve in the process of making the artwork, but they will not be able to change the content.

Required Know-how and Resources

First of all I have to know and understand how to work with Adobe Flash and Unity3d as tools. I have to learn how to make movie clips with Adobe Flash, how to make 3d modelling by using Unity3d and how to write necessary codes, like 'mouse look', in Javascript. As resources, I need a decent computer in order to present the project.

Difficulties & Risks

Because of not having any working experience with Unity3d, the most significant risk is creating real-time environment. Considering that risk, the solution is to create 'rotation buttons' instead of writing 'real-time code'. By creating 2 rotation buttons, one to rotate up and down and the other one to rotate left and right, the users will be available to rotate the 3d environment.

Phases of the Project

• Creating the interface.
• Creating a movie clip for transitions.
• Designing the 3d room / environment and 2d visuals.
• Writing a code for 'mouse click to play a movie clip'.
• Designing the 3d models.
• Writing the code in Javascript for mouse look and keyboard movement. (Or, a code for the button rotation.

Criteria of Success

Writing the code in Javascript for mouse look and keyboard movement and experiencing Unity3d as a new tool should be done by this term.

The success, in my opinion, as a designer is to have a really good looking interface and to create a working illusion of the transition between 2d and 3d.

Project Gantt Chart

Task	Month range	Weeks
creating idea and the research	October – December	41–52 (orange)
storyboard	December – January	51–1 (green)
coding for mouse look and keyboard movement	January	1–2 (light purple)
creating 3d environment	January	3 (light green)
creating buttons and codes	January – February	4–7 (dark navy)
creating 3d models	February – March	7–11 (lime green)
creating movie clips	March – April	12–15 (blue)
coding ml and km for all environments	May	16–18 (light blue)
documentation	May – June	19–22 (red)

	October				November				December				January				February				March				April				May				June			
Week	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24