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Pulsation of City

Interactive Flying Ball Installation

The idea of the work came from an exhibition which was held in Liverpool Biennale in 2009. The theme of the exhibition was related to the local canal in Liverpool. The Organization Committee hopes to select the art work which could be interactive with local people. So we thought about using electronic technology to show visual effects of the canal wave. In China we have a proverb 'The water that bears the boat is the same that swallows it. We tried to use the work to explain the relationship between people and water. After comparing and testing materials repeatedly, we chose the acrylic tube, plastic ball, LED lights and industrial fans to make our work. The reasons we selected these materials were as follows:

1. We used to think about LED lights to simulate the wave. Finally, we believed that controlling the movements of real objects would be more thrilling and powerful than using lights.
2. There have been some works that can control the movements of real objects such as the metal balls controlled by metal strings which was made by ArtCom. Probably, it is the first time for an electronic art work to control ball by wind.
3. The original idea was to create an interactive mode between audience and the balls. When people walk close to the tube, the sensor under the tube would be triggered to send a signal to open the fan which was built in the bottom of the tube. So the ball will be blown to the specified location. After people pass the tubes, the motion of balls would be like waves shape.



Fig. 1: Sketch of the idea



Fig. 2: Finished work



Fig. 3: Sketch of updated idea

The work wasn't ready in time for the exhibition in Liverpool for some reasons. Fortunately, the idea was supported and accepted by Shanghai Shentong Metro Company. The work would be placed in the hall of the metro station. Considering one of the functions of the metro station hall is evacuation, we changed the idea and adjusted the target. Firstly, we canceled the interaction between passengers and balls to avoid congestion. Secondly, we make the motion of balls to follow the rhythm of music which is like a spectrum. The work was more than 13 meters long and 2.2 meters high. It created a flying ball display system which was formed by 68 transparent tubes. Each fan was controlled by computer independently. The whole work was installed on the wall of Houtan station of Metro Line 7, Shanghai. This station located in the main area of 2010 Shanghai Expo and opened in 20th April, 2010. The work attracted lots of passengers to stop and take photos.

We will upgrade the work in the next stage and try to make real balls to move in the 3-dimension space. Audience would feel the powerful visual impact of anti-gravity in real space. The motion of balls forms not only the shape of line but also the plains up and down.

The work was our first public art work with digital and electronic technology. It breaks through the traditional forms of public space art such as mural and sculpture, and builds a totally new visual art environment.