

Breathe Brush

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ABSTRACT

This paper is about the study on an artwork, a black-and white drawing that has been expressed through a digital algorithm. Black-white drawings were popular during the Chosun era (1392–1910) reigned by kings and officials. The Oriental fine art, pursuing harmony with nature, is expressed in a moderate and restrained way, hence anyone would find it very soft and thus readily acceptable. Unlike the western paintings that fill the canvas to the very full, the oriental paintings treat even the blank space as a part making up a balanced painting. This artwork features Daegum, the decent traditional musical instrument which used to be played in loyal palaces or guest rooms of prestigious officials' residences, and a bamboo which was a frequent motive of gentlemen's paintings in the past. Daegum and the bamboo, expressed in a modern style in this work, make people appreciate the life that is full and rich. So, one can say they have been used here to make this "well-being art."

1. Introduction

Based on the concept of this work, the bamboo was painted according to the strength and the length of the breath of a Daegum player. Of the four gracious plants, this work took the bamboo as its motive. Bending little by little but not being broken to-tally, the bamboo was selected as it also keeps its leaves green throughout the four seasons, empty inside and pointing up to the heaven, which resembles the ancient gentlemen's spirit. The bamboo forests, being full of nature's spirit and believed to cleanse body and mind, were considered good places for meditation in leisure by Oriental people like Koreans, Chinese and Japanese. In the era of digitalization, how-ever, bamboos seemed to stay just a traditional symbol. As people seek well-being in the modern culture, black-and-white paintings and calligraphies have been gradually received and now are being established as a culture on their own. The very tool that draws the bamboo is also made of bamboo and is called Daegum. In other words, the painting is not drawn on a paper using a brush but drawn by Daegum play, that is, according to the strength and the length of the breath of a Daegum player. The sound of Daegum is clear and deep, just like the spirit of the upright, in-corruptible gentlemen who cared only about their nation and the king. Daegum is one of the representative musical instruments that were played in palaces during Chosun Dynasty. Literary men learned how to write or paint, and also, how to play Daegum. It was taken as it was believed to cultivate good minds, just like the four gracious plants. In the Oriental culture, if a person plays a musical instrument, another person would paint a picture according to what he feels as he listens to the music and tries to figure out the music player's thoughts and then they would talk



Figure 1. A bamboo painting drawn by Breath.

about it together. In this work, the Daegum player is the audience and the computer paints the picture in accordance with the music played.

2. Design development

Being a traditional musical instrument, Daegum is played out in a sitting posture so that the player can calm himself/herself down. Just like a flute, it is blown from aside. Chwigoo (the position where lips are placed on) should not be covered completely by lips but only by the lower lip so that the breath can be blown into it. A bamboo is hollow inside and therefore the sound resonates from within and comes out of Chwi-goo. So, the ultra tiny microphone is installed inside Chwigoo, so that the computer receives and recognizes the strength and length of the breath of a player, and then classifies them into 15 different sounds. The strength of the breath determines the shading of the ink and the length of the breath determines the length of the bamboo's knot.

3. Conclusions

Having been played by high-ranking gentlemen in Chosun Dynasty, Daegum, these days, has still a limited access only by those who major in Korean traditional music. There were many trials and errors due to the limited experience with Daegum. Without given musical notes, the artist's intention had to be understood. In order to arrive at the image and the shape intended for the work, the concept of the software had to be understood, which is also necessary to comprehend i.e. social policies and cultural attempts that are realized through software.

4. Acknowledgements

This work was supported by Korean Research Foundation under BK21 project, Seoul R&BD Program (TR080601), Seoul Future Contents Convergence (SFCC) Cluster established by Seoul R&BD Program (10570).

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