
Visualization to Assist Sandplay Therapy based on 3D Scanned Data

Hiroki Ito and Satoshi Tanaka (Ritsumeikan University)
E-mail: is0294xs@ed.ritsumei.ac.jp, stanaka@is.ritsumei.ac.jp

abstract

In sandplay therapy that is one of the psychotherapies, it is important to diagnose the client's psychological state by time lapse. On the other hand, the miniature garden in sandplay therapy represents the mind of a person, and it can only be saved as a picture in terms of number and spatial distribution of the miniature objects (see Figure 1). When a therapist grasps a client's mental state, the mental state is judged by the miniature objects in sandplay and the undulation of sand. However, for diagnosing the transition of the client's mental state, it is difficult to judge sand undulations using only photographic data. Therefore, we proposed a three-dimensional digital archiving and visualization method for the miniature garden to support the diagnosis of sandplay therapy. The subjects in this research are students of the rugby club of Toyo University. The relief of sand is visualized using colored contour lines. A contour line can be generated by projecting neighboring points to the position of the contour line. Also, different colors are implemented by applying a color map to the contour lines drawn by the above method. The experimental result shows that the proposed method successfully visualized the relief of the sand.



Figure 1. Transparent visualization of a miniature garden for the sandplay therapy. The 3D scanned data were supplied from Prof. Chieko Kato, Toyo University, Japan.