



Favelas 4D - English

Carlo Ratti is an architect, co-founder of the international design and innovation firm Carlo Ratti Associati, and he leads the Senseable City Lab at the Massachusetts Institute of Technology. With his team, he most recently explored how digital technologies affect the built environment.

Using handheld 3D scanning technology, they analyzed the architecture of Rocinha, Brazil's largest favela. The geodata was created using Light Detection and Ranging (Lidar) technology. Here - simply explained - laser pulses measure the distance and merge it into a point cloud. In this way, the researchers want to capture previously invisible data in order to access the current state of a place.

The intention of this project is mainly based on the rapid growth of cities worldwide, which leads to even greater spread of socially deprived settlements with their complex structures. Due to impassable roads, Google Street View cannot perform the street survey, so a hand survey is necessary. According to Ratti, localities without a mapped record would not have access to mainstream services. That's why it would be so important to make such surveys worldwide.