

pendulums

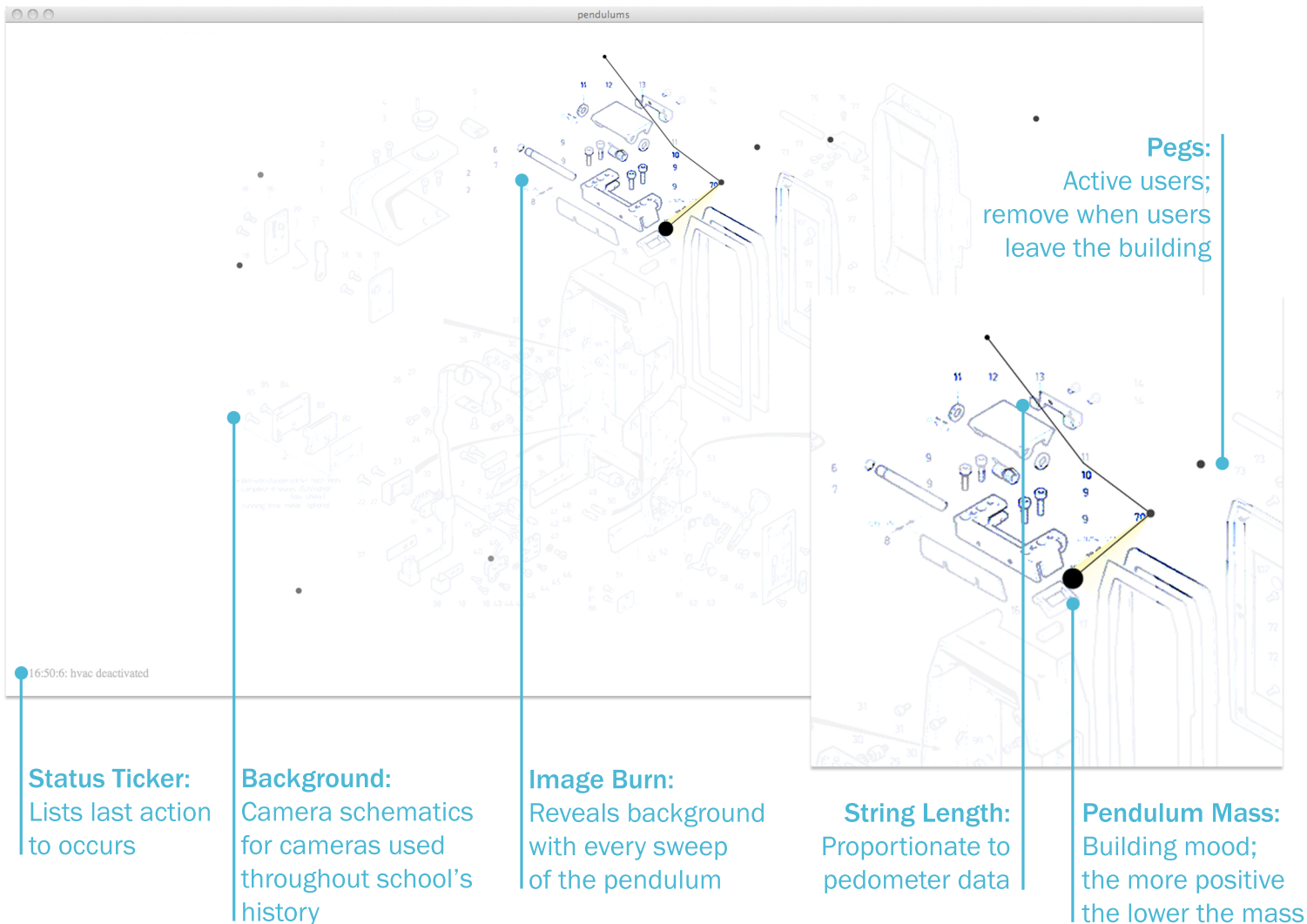
what can your data do?

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Pendulums is a creative approach to data visualization created for the School of Cinematic Arts (SCA) at the University of Southern California.

By combining occupancy data from the SCA building along with mobile phone data, *Pendulums* creates a unique display, which is not only easy to read but subtle and entertaining.



What can your data do?

What if you could display data as a playful work of art? What if a real-time data display were fun to watch and interesting beyond its numbers?

Our data representation records activity from users signed into the building application via a mobile device, and then introduces that data into a lively world of pendulums. There are a variety of ways for a user in the building to affect this system.

Stepping In

At the simplest level, a new person signing into the building application introduces a new peg into the digital display. If the swinging pendulum catches on the new peg, the pendulum ball will loop around the new peg, and continue to swing from there. As more people enter the building, the pendulum will transfer from one peg to another, leaving behind a visual “residue” on the background image to show where it has been over the course of the day.

Users can also affect this system in other ways. For instance, sending emails and text messages causes a person’s peg to blink and increasing the pedometer by walking will cause the pendulum string to slowly extend.

The Background

The background images in this display are all “schematics,” – or mechanical drawings - of different film cameras. Because this display is intended for the new SCA building at the University of Southern California, it was fitting to use line drawings of film cameras that have been used in throughout the history of the school.

It is also worth noting that the background images develop depending on the location of the pendulum. At the beginning of the day, the background image is faint and not easily discernable, but as the pendulum swings, it will gradually define, or “burn in,” the image underneath of it.

Mobile Devices

Mobile devices are an integral part of Pendulums. The Pendulums application is designed to run in tandem with the SCA Million Story Building application that is currently in development. The Million Story Building application provides the ability to track user data and presence within the building, as well as track pedometer and SMS data.

The Pendulums mobile device application not only feeds user data into the display, but it also serves as a key for users to understand how they are affecting the system. While the larger display can be visually stimulating, it can also be difficult to interpret. With the use of the annotated mobile application allows users to view their own personal statistics, as well as those for their home department and the overall building, and explore how these numbers affect Pendulums.

For additional documentation and design insight, visit:
http://interactive.usc.edu/intelstudentdesign/data_visualization/

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