

Japanese mapping project tracks the last moments of the victims of 2011 tsunami

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The laboratory of Hidenori Watanave in the Faculty of System Design at Tokyo Metropolitan University and Iwate Nippo Co., Ltd have put together a digital archive tracking the evacuation patterns of Great East Japan Earthquake victims between the time the earthquake struck and the time the tsunami made landfall.

It is exploring new possibilities in integrating digital technology with print media.

The archive is titled We Shall Never Forget: Behavior Patterns of Victims of The 2011 Great East Japan Earthquakeand is being released five years after the disaster struck in March 2011.

Various positional information was collected from surviving family members detailing the location of victims at 2:46PM on March 11, 2011 when the Great East Japan Earthquake struck as well as their location when the tsunami made landfall. The research team then constructed a 3D aerial photograph of the affected area and used it visually track the evacuation behaviors of the 1326 victims whose detailed locations are identified immediately following the <u>earthquake</u>. Permission was granted from the families of 687 victims to record their names and specific movements; these can be seen on the map as well.

This movie shows the positions of earthquake victims as points on a map and then tracks their evacuation movements between the earthquake and the approach of the tsunami by showing those points in motion.



Blue points and trajectories are used to indicate males and red points and trajectories are used for females. The long lines show movement in a car or other vehicle.

Points showing no movement indicate victims who died without evacuating after the earthquake. Also tells us that some people died when they traveled back to their homes or other locations after the earthquake and those ended up being submerged in the tsunami.

With the permission of the surviving families, detailed information was added for some of the victims, which can be seen by clicking on the points. By integrating with the Google Street View function, viewers can also check the recovery status of each area. Google is a registered trademark of Google Inc. (USA)

This movie tells us that many of the victims headed for the civic gymnasium in Rikuzentakata when the earthquake struck, and there lost their lives.

We will make use of this archive to analyze evacuation behaviors—encouraging people, for instance, to avoid overestimating evacuation sites and head to higher ground.

Watanave assumed the post of visiting scholar at Harvard University in April 2016, plans to utilize the behavior record map in disaster archives of the university.

By creating a visual record of these <u>victims</u>' silenced voices, our team hopes to leave a record that can educate future generations on how to prepare themselves for earthquake disasters.

Provided by Tokyo Metropolitan University



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