



MEMORY GRAPH

<http://codh.rois.ac.jp/memory-platform/>

MemoryGraph: Digital Critique of Old Photographs Using a Mobile App that Enhances the Interpretation of Landscape

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Memorygraph is a new photographic technique that creates a layer of memories, or time-series photographs taken by the same composition at different times.

Introduction and Method

* Comparison with related methods:

1-a Time lapse animation: high frequency observations using a fixed camera (on the tripod).

1-b Memorygraph: low frequency observations using a mobile camera held by hand.

2-a Augmented reality: a photograph can be seen as an overlay in the real space on a viewfinder.

2-b Memorygraph: a photograph can be seen as an overlay on a viewfinder, not in the real space.

3-a Photo sharing service: an exhibition tool for users to passively browse photographs.

3-b Memorygraph: a participatory tool for users to actively be involved in field work.

* Important concepts of the app:

1. Graphic reference: an old photograph suggests the expected scene of the next photograph to take.

2. Direct comparison: an opaque viewfinder with adjustable transparency allows direct comparison with the landscape without mental rotation.

3. Gamification effect: users are motivated to search for better matching using visual feedback.

Results and Discussion



Above: Comparison of two photographs of the same composition. "A view from Miyakezaka to the ministry of justice" taken around 1911 and the current landscape. Courtesy of National Diet Library.

Left: Participants walked along the moat to find the best match, and their trials are marked by icons. The final solution of the above figure was obtained at the north end of the moat.

* Digital critique and research questions:

1. Variance and invariance: how to identify features not changed over time, and why is it?

2. Integration across sources: how to integrate historical sources to have a unified understanding?

3. Photographer's intention: why the photograph was taken from the place in this composition? Re-experience the emotion of the photographer!

Android App (under active development) is freely available from Google Play.