

# Time Lens

Michael Kuetemeyer  
Temple University  
[mku@temple.edu](mailto:mku@temple.edu)

Anula Shetty  
Fire Work Media  
[anula@termite.org](mailto:anula@termite.org)

## 1. Introduction and Motivation

Time Lens is an interactive documentary mobile app built on a growing set of immersive panoramas documenting the rapid gentrification of an urban neighborhood in Philadelphia. Incorporated into these digital panoramas are voices, stories, dreams and memories of members of the largely invisible homeless community. Users can download the app on their mobile devices and then follow along in the actual location and experience the past and the present, the virtual and physical worlds all at the same time. The goal is to bring people to a specific location to participate in a transformative experience of that space, to infuse media art into the geographical landscape.

The story of Pearl Street in the Chinatown North neighborhood in Philadelphia is representative of the stories of change that are affecting many urban neighborhoods in the United States. The gentrification of this neighborhood will lead to the displacement of many long time residents including the homeless who live in its alleys and who are served by the homeless shelter, Sunday Breakfast which occupies a prime location in the neighborhood. Time Lens experiments with the concept of experiencing the multiple dimensions of a place and makes audiences question their own role in the gentrification of a neighborhood. The project was developed as part of the Asian Arts Initiative's Social Practice Lab and funded by ArtPlace. The Time Lens mobile app is retrieved from <https://itunes.apple.com/us/app/time-lens-pearl-street/id706525884?mt=8>

## 2. Technical Approach

Time Lens expands and builds upon our previous locative media work (Explore Hawaii Volcanoes [Fire Work Media 2014]). By adding the dimension of time and community engagement, we maximize the participatory potential of augmented reality and location aware mobile media technologies. The project uses the dimension of time as way to experience a place. When panoramas of a specific location from different times are blended, it creates a lensing effect, a temporal interferometer, allowing insights into a location's multiple temporal incarnations. On each location of Pearl Street, viewers can look at and reflect on the past, present and future. Using a combination of GPS and physical landmarks, timelapse spherical panoramic sequences (32 images) are captured sequentially in each location by a robotic tripod over a period of 3 years. Tagged onto the panoramas are community generated historical and social markers in the form of videos, interviews and photographs. The Autoplay scripting function of the app creates an ability to travel both from location to location along the street but also to the past or future of that location.



Figure 1. Time Lens App – Panorama 1230 Pearl St view to west.

Through the Autoplay function, a narrative path can be woven into the space-time matrix of panoramas.

## 3. Implementation and Future Work

A collaborative participation model is used to engage the community. We partner with men from a homeless shelter, Sunday Breakfast Rescue Mission, to create photographs, videos and interviews of the neighborhood's past, present and future. The men receive training in photography, video production and creative non-fiction. The project also features community created pop up cards by local artist Colette Fu.

To bridge the gap between the virtual and the physical worlds and to present the project to the community so more people will tell their stories, we drew inspiration from a travelling cinema device used in India – the Bioscope. It is a wooden box, the interior of which has pictures that can be viewed through four circular holes. Excited by the symbolism of the bioscope as a dream making machine of the past as well as the community viewing interaction and experience it fosters, we created a solar powered Bioscope installation with four interactive iPad screens as viewing portals. In our future work we will continue the longitudinal study of the neighborhood, broaden community involvement, and build more interactive components into the mobile app.

## References

FIRE WORK MEDIA 2014. Explore Hawai'i Volcanoes (Version 5.0) [Mobile application software] Retrieved from <https://itunes.apple.com/us/app/explore-hawai-i-volcanoes/id467177513?mt=8>