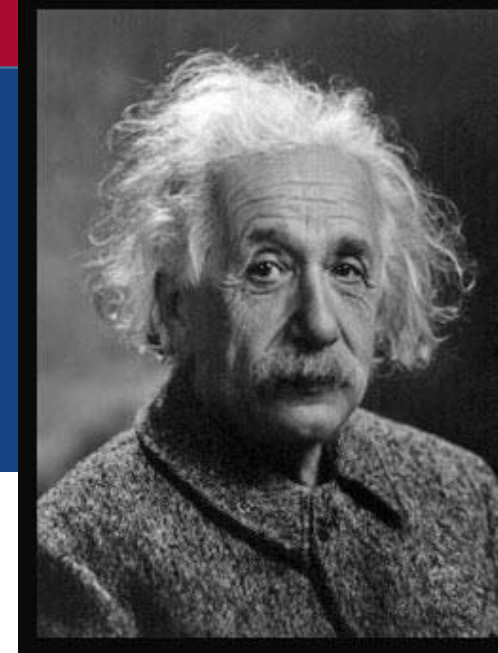# Time Awareness Travel Plan Platform

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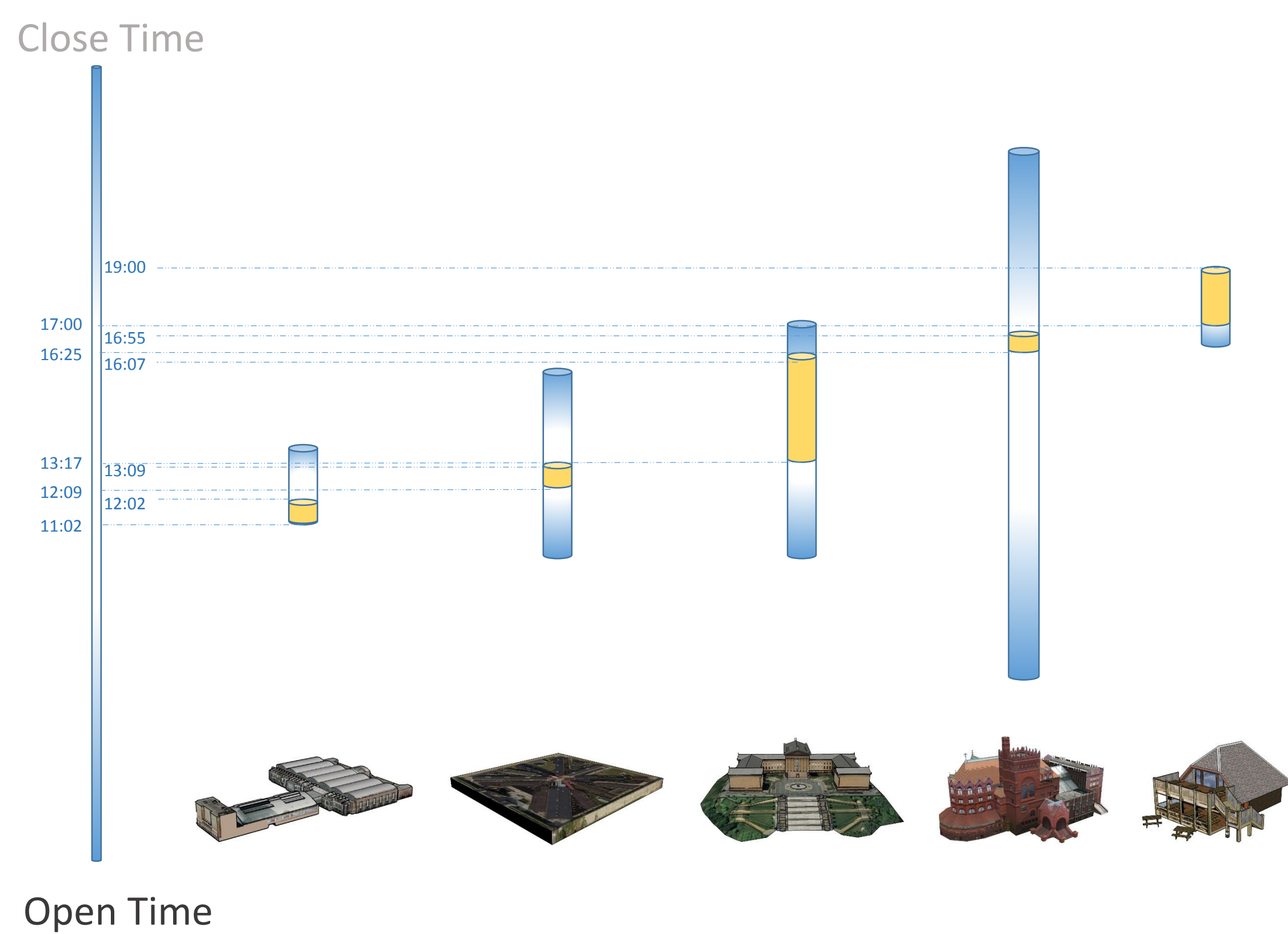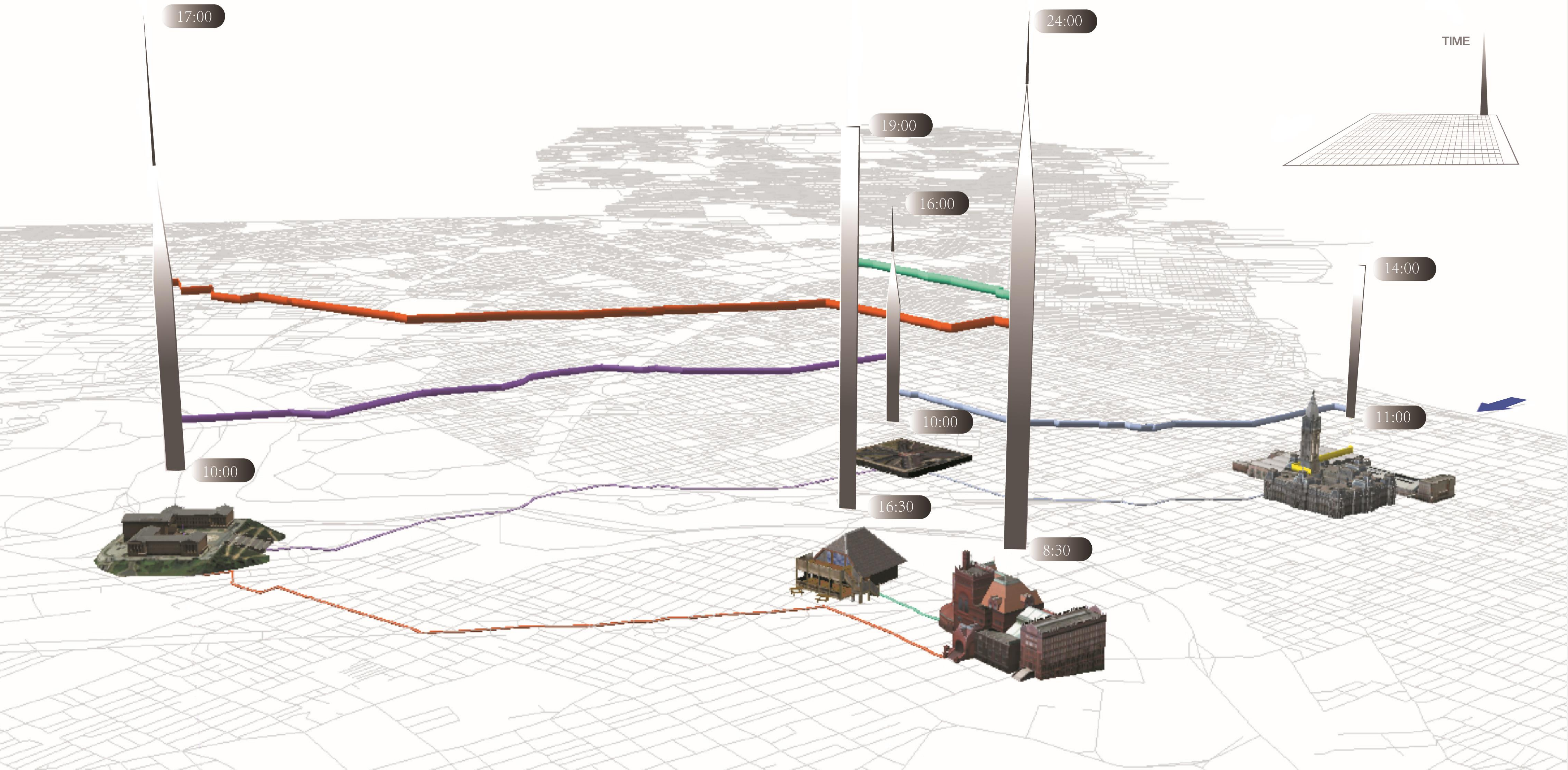
Time and space are modes by which we think and not conditions in which we live.
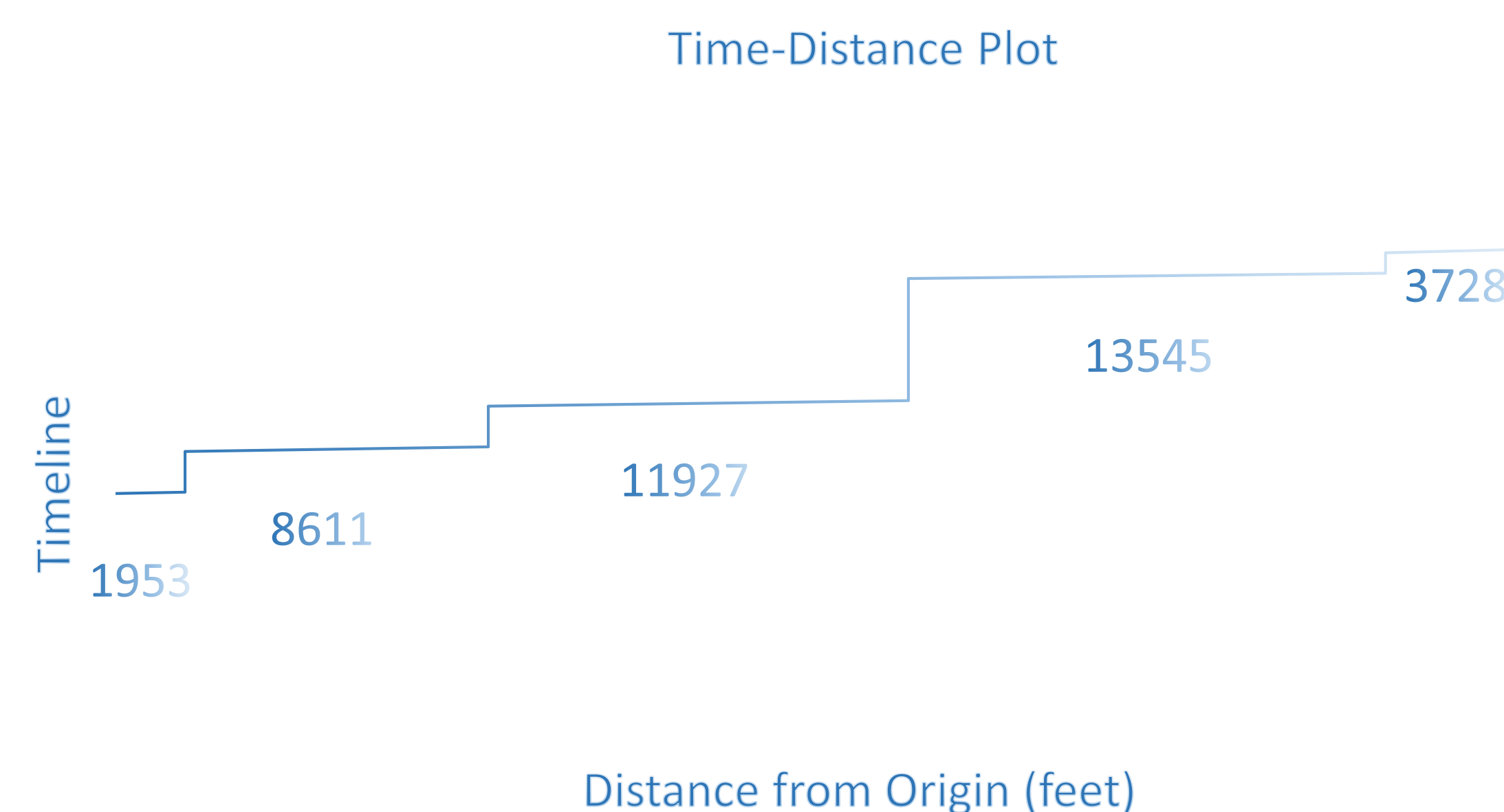
(Albert Einstein)

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space and time of attractions

space and time of travelers

Preview

The intrigue for this study is one simple sentence that inspires me a lot. "Everybody is defined by space and time". Here I do not argue whether this saying is true or not, however, it actually gives us a new perspective of thinking about space, time and everything.

Space and Time

For me, I think this space and time theory is certainly true. As I think deeper, I distinguish active things and inactive things by giving them different measurement of time and space.

For active things such as person, the timeline is consistent with space and both of them are continuous. For inactive things such as buildings, or events, they have a specific location, which is not hard to find. They also have an implicit stable timeline, which generally speaking relates to their start time, end time and time duration. This timeline for inactive things are meaningful only if they interact with active things.

This notion is best explained by the travel behavior, while people continuously travel in space and time, attractions have their stable open time, close time and travel time cost (which is generally how long people spend at each attraction.) And during the trip, people interact with the attractions, and when they interact with each other (can be seen as space crossover), their timeline interacts and merges.

Time Awareness Travel Plan Platform

Most parts of travel are solved by lots of online platforms such as Booking, Tripadvisor, Yelp, etc. However, regarding travel plan itself, no platform actually touches this topic. Based on my love for travel and my awareness of space and time, I design an algorithm, which accounts for user's location and time, attraction's location and time period, and generates a travel plan to optimize the time cost.

Figures ahead are illustrations of the sample output from this algorithms. The map shows a trip starting from City Hall (Philadelphia) at 11:00 AM, and the attractions visited include Art Museum, Eastern State Penitentiary, Fisher Library, and have lunch at Reading Terminal (which is specified by user), and have dinner at Sabrina's Cafe (which is suggested by Yelp API inside the

algorithms). This map uses a space-time axis system to denote the time cost on the road as well as at each attraction. The representation of time cost on road is accomplished by denoting the z value of the start point and end point of the road to be the time at start point and end point. The time cost at each attraction considers the general visiting time at each attraction. This axis system is a rigid system that each point on the float road corresponds to an accurate location and time. So we can basically get the space and time information of the user from this map. And the bar on each attraction denotes the timeline of the attraction, which shows the open time and close time. The width of the bar corresponds to the possibility of visiting the attraction. Taking the Art Museum as an example, it opens at 10 AM and closes at 5PM, and the general visiting time at Art Museum is 3 hours. So as time approaching 2PM, the possibility to visit the Art Museum is decreasing. And after 2PM, there is no possibility to visit the Art Museum in my algorithms.

More information can be found by scanning the QR code on the right. This website is still under development and will constantly update.
Hope to hear about your feedback!