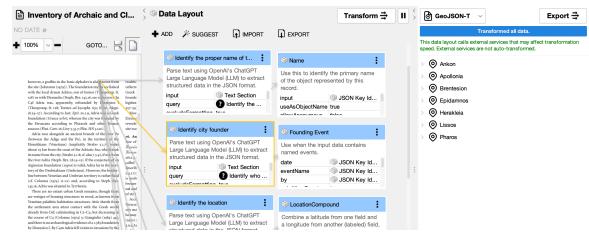


## Data Transformation

Running Reality has a data transformer built with feedback from researchers. It is enhanced to work within digital history tool workflows, with structured and unstructured data, and with geospatial, geo-temporal and narrative data.

It is used by Running Reality itself to build its world history model.



## AI Large Language Models

The data transformer can take narrative text (TXT, PDF, HTML) as an input to create structured data outputs. Transformers can call out to external services:

- **OpenAI GPT-4** to identify and parse names, dates, events, and extract numerical data.
- **GeoNames** and **Pleiades** to identify named locations.
- **Apache OpenNLP** to identify proper names.
- **PeriodO** to identify named eras, epochs, and date ranges.

## Generative AI (EXPERIMENTAL)

- **Segment Anything 2** to identify polygonal features from historical maps.
- **Meshy.ai** and **OpenAI DALL-E** to develop 3D models from historical photos of people, buildings, vehicles, and objects.

# Running Reality

## Vision

A global, digital, immersive time machine is around the corner. It needs to be built with integrity and transparency. It needs to be based on real data, inherently model uncertainty, and visualize it accordingly. Running Reality is methodically building its global integrated world history model to achieve this.

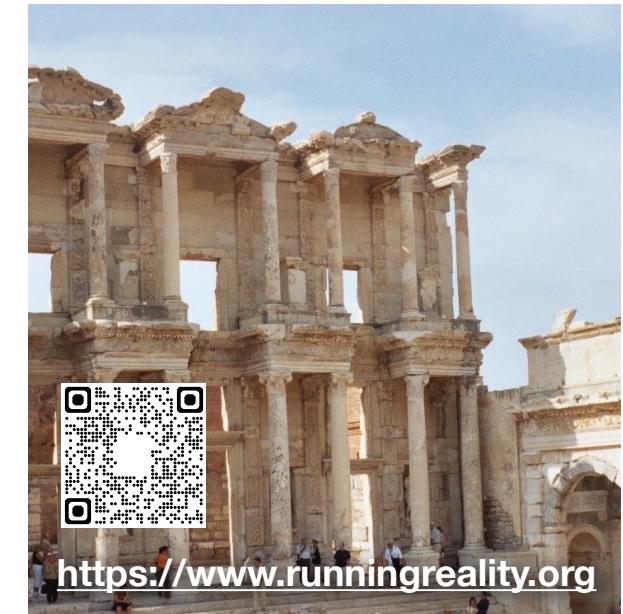
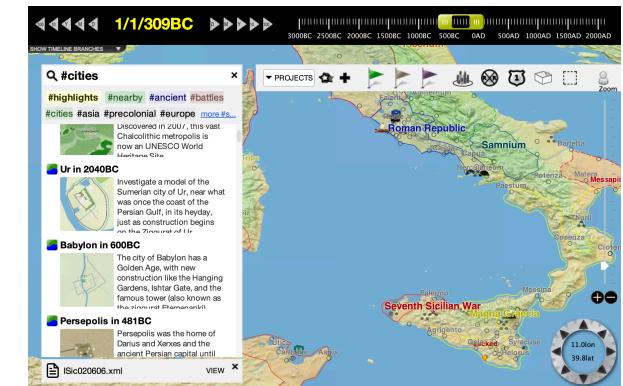
## The Future

A global integrated world history model is a platform, a time machine, and an opportunity. Technology is racing ahead, with historical “big data” and Linked Open Data sets coming online, 3D visualization and augmented reality coming to our devices, and machine learning helping us bridge structured and narrative data in new ways.



# Running Reality

A digital history tool and world history model to analyze, transform, and visualize historical data in geospatial, temporal, and narrative form. It integrates with your tool chain using interchange formats like GeoJSON, CSV, SQL, RDF, EpiDOC, and LPF.



# Visualization



Running Reality has a range of visualization options for print publication, web publication, video, export to other tools, and broader audiences.

Running Reality is building from nation-scale down to meter-scale and from 2D to 3D to enable a more immersive experience for research and education.

**01/01/1850**

**Alexandria, Virginia**

The railroad comes to Alexandria, with a freight line down Union St along the wharves. This track no longer exists, but was crucial to freight operations at the port for a century. Try LIVE view to see a virtual train and virtual ships along the former shoreline.

**VR**

**Return to Map**

## THE DATA

1.5 million factoids (data with a discrete citation), 350 thousand historical objects, and 3700 separate citations as of the end of 2024.

## Web Version



A read-only way to explore and share history on any desktop or mobile device in 2D and experimental 3D augmented reality.



**HIGHLIGHTS** help users quickly navigate to interesting history topics.



**PROJECTS** help interested users choose ways to contribute, sorted by skill level.



**LESSON PLANS** are a new way for teachers to guide a class on a journey exploring history



**HOSTED RESEARCH** is a new story-map and file hosting service

It uses the OpenLayers JavaScript library and can be embedded in other web sites or as a kiosk.

## THE PROJECT

Based in Northern Virginia, USA, since 1997, online since 2007. Multi-region cloud servers for global high reliability and low latency.

## AVAILABILITY

MacOS, Windows, Linux, iOS, Android. Ad-supported free version with no-cost registration for ad-free educational experience.

## Desktop Version

An advanced tool tailored specifically for analyzing digital historical data on any desktop or laptop.

- Handles both geospatial and non-geospatial data sets in one system, with the ability to transform data across formats.
- Performs advanced data visualization including interactive online maps, video, and augmented reality.
- Analyzes temporal data and imprecise data, especially data not handled well by GIS systems.
- Enhanced citation system to track data fidelity and uncertainty, in addition to tracking version control and copyright attribution.
- Extracts structured data from narrative data using Artificial Intelligence / Machine Learning large language models.

## INTERCHANGE

- GeoJSON, GPX, GeoJSON-T, M-F-JSON, JSON-LD
- RDF, LPF, EpiDOC
- PDF, HTML, TXT
- CSV, XLS, SQL