



Time Machine Europe
**Towards Scalable
Humanities Research**

Helsinki, 13 March 2020

Julia Noordegraaf
University of Amsterdam





Time Machine - A Common History for the Continent

5.109 weergaven • 27 mrt. 2019

73 0 DELEN OPSLAAN



Content

1. The Time Machine Project
2. The Amsterdam Time Machine
3. Innovating Scholarship
4. Time Machine for Society

1. Time Machine Project
**An infrastructure to extract
Big Data of the Past**





Since 2016, more than 600 partners from science, industry, cultural heritage and civil society have joined an unprecedented alliance under the umbrella of the **Time Machine**.



A giant graph of data linking people, places and events is created.

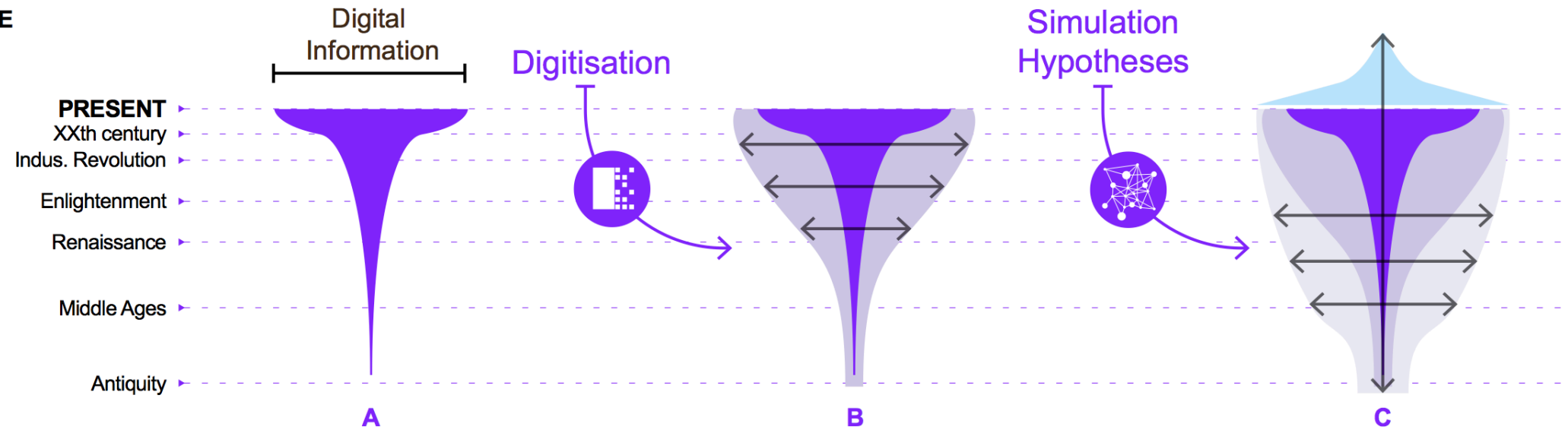
Venice Time Machine : General Introduction

16.202 weergaven • 19 jun. 2014

27 0 DELEN OPSLAAN



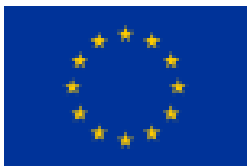
FUTURE
↑
PAST



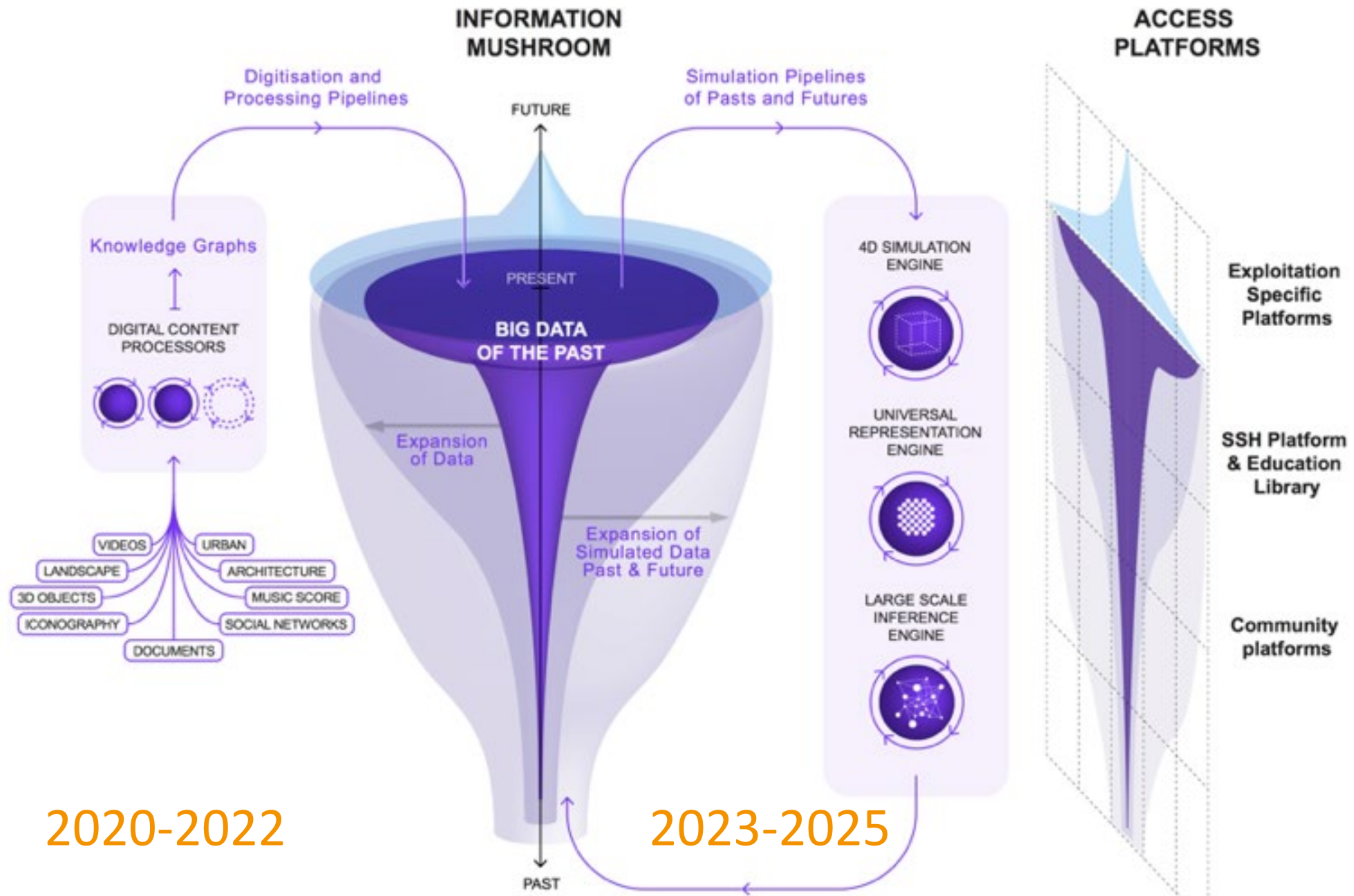


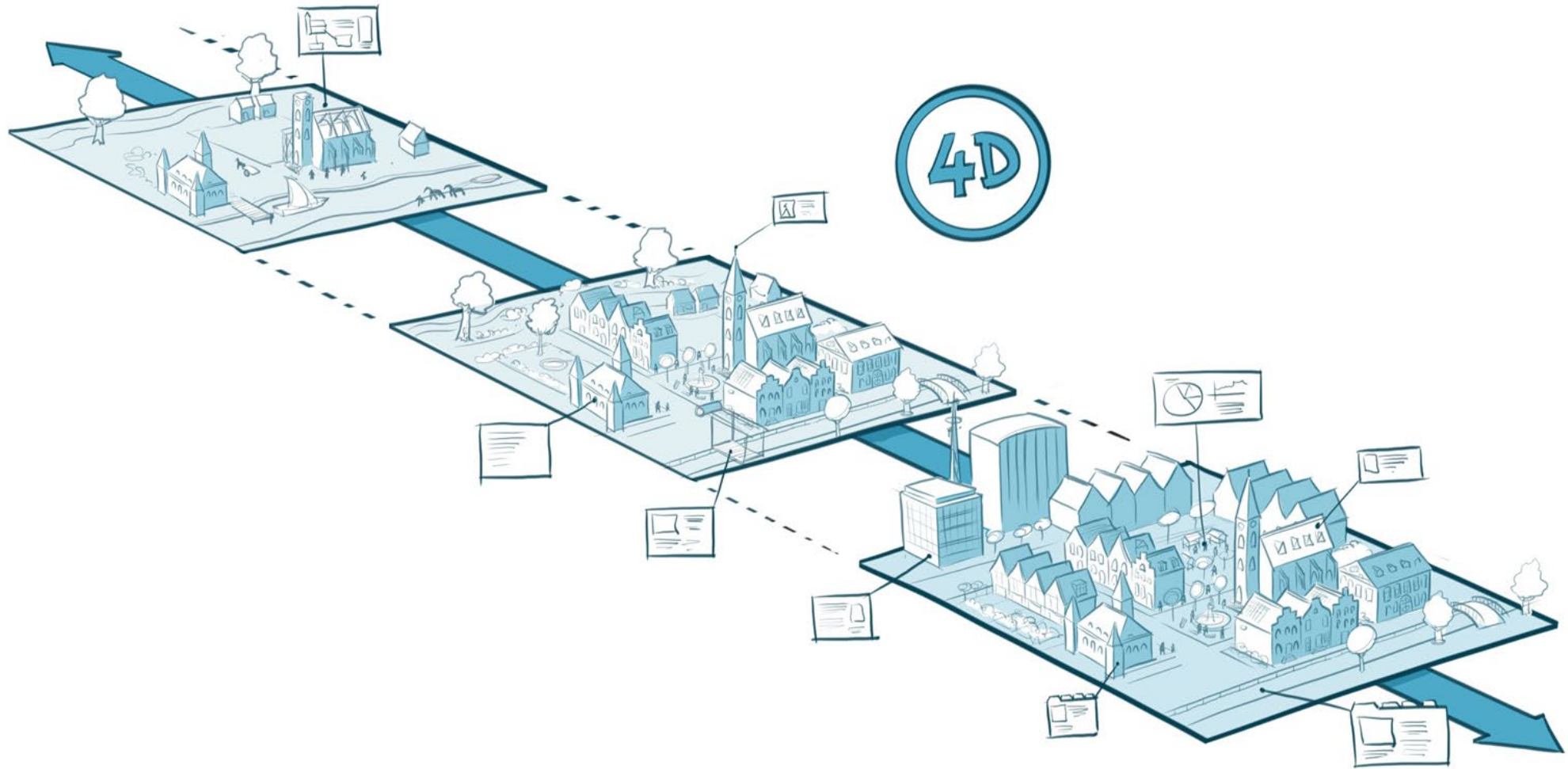
Time
Machine

In the **Time Machine CSA** (2019-2020)
a collective vision was established
for the next 10 years.



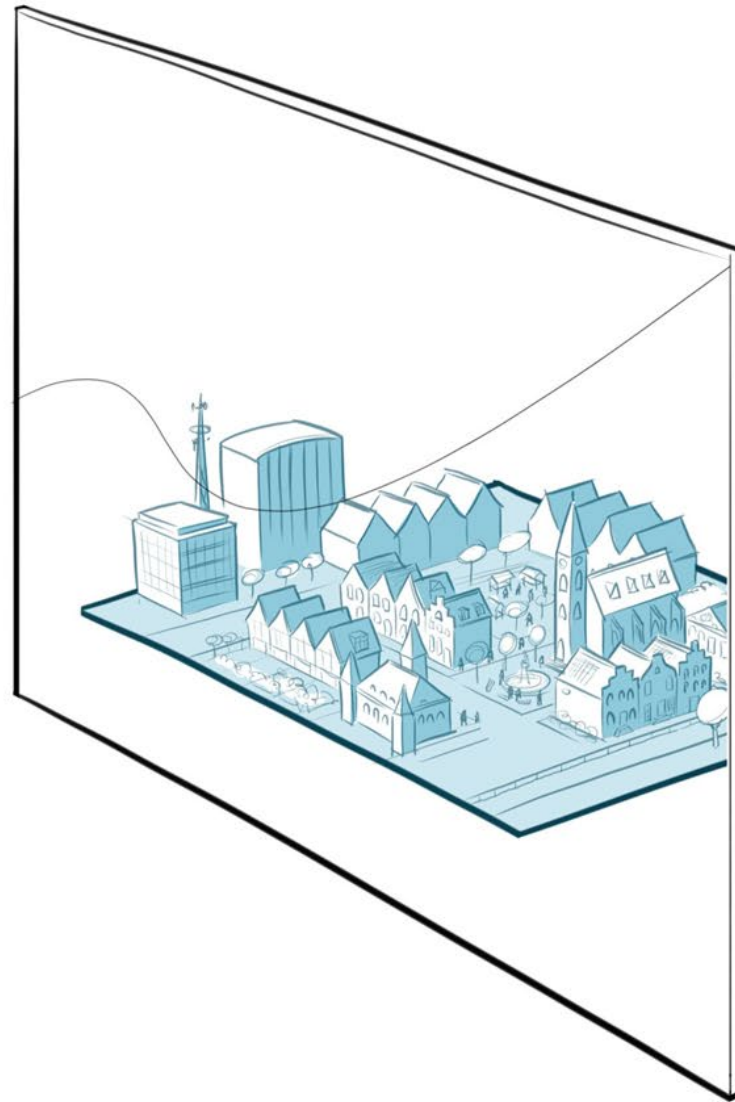
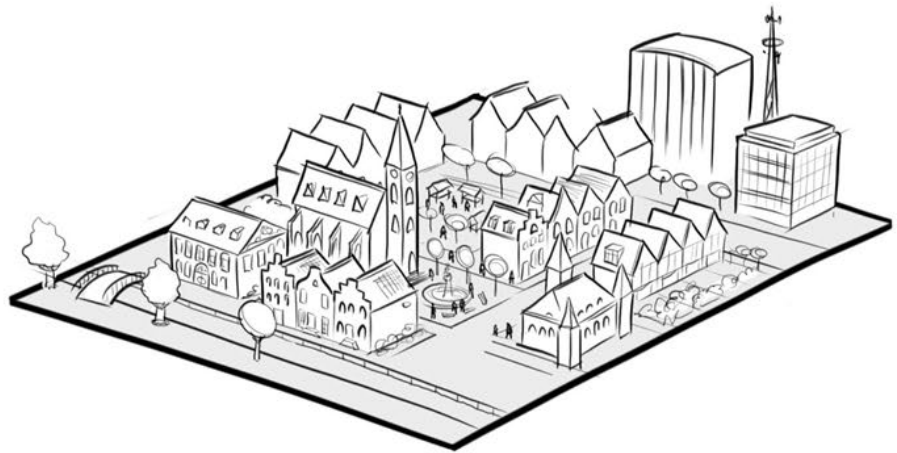
This project has received funding from the European Union's Horizon
2020 research and innovation programme under grant agreement No
820323

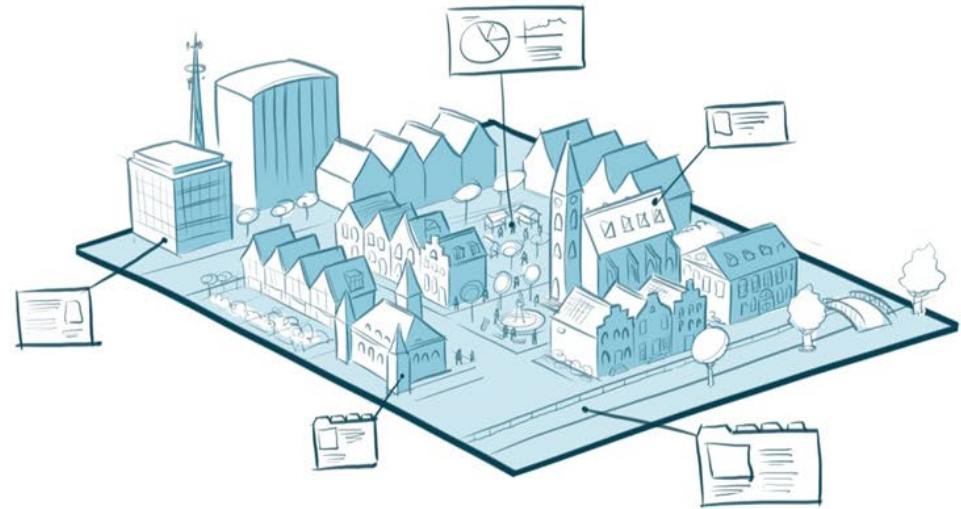


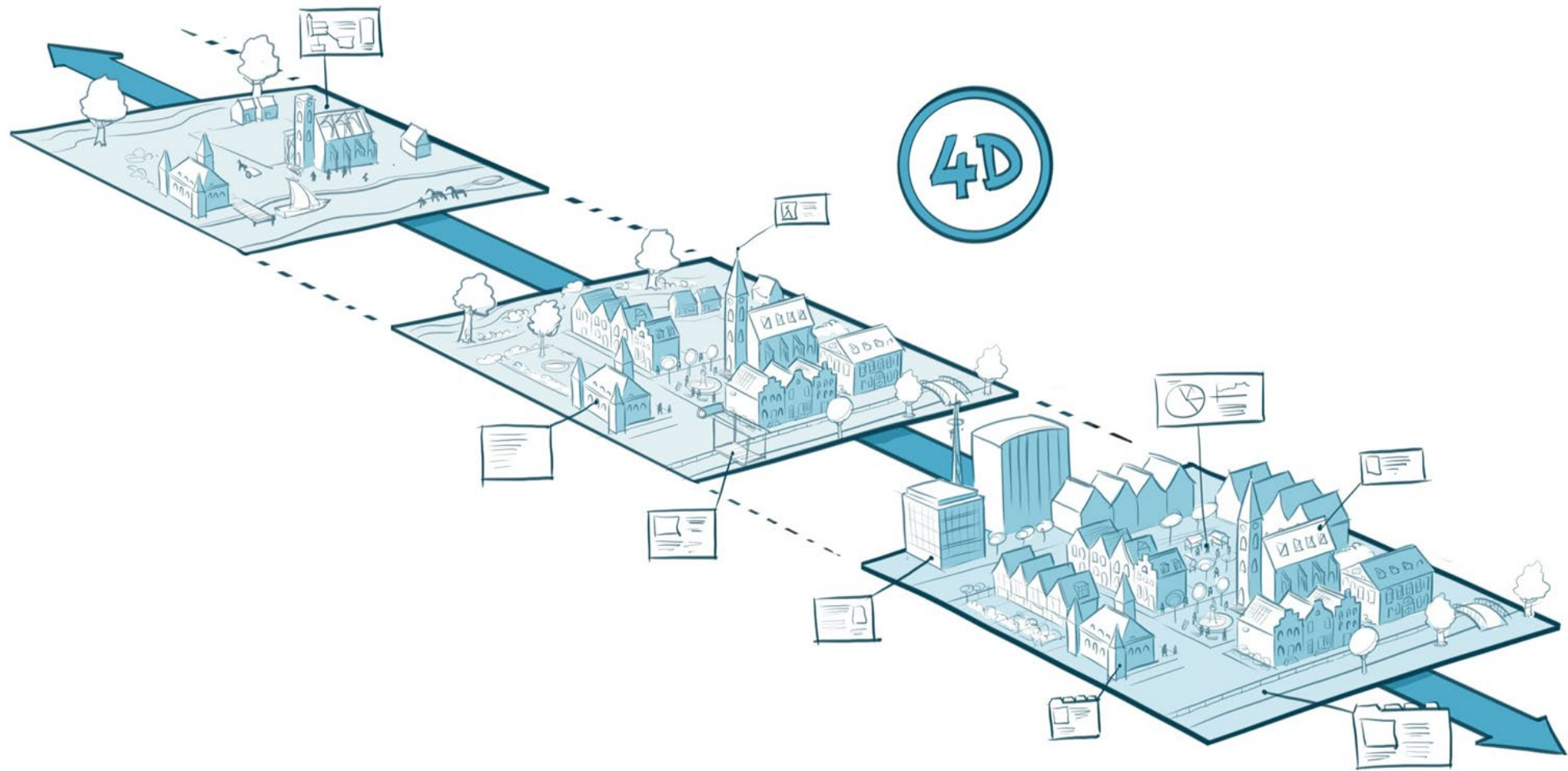


2026-2030

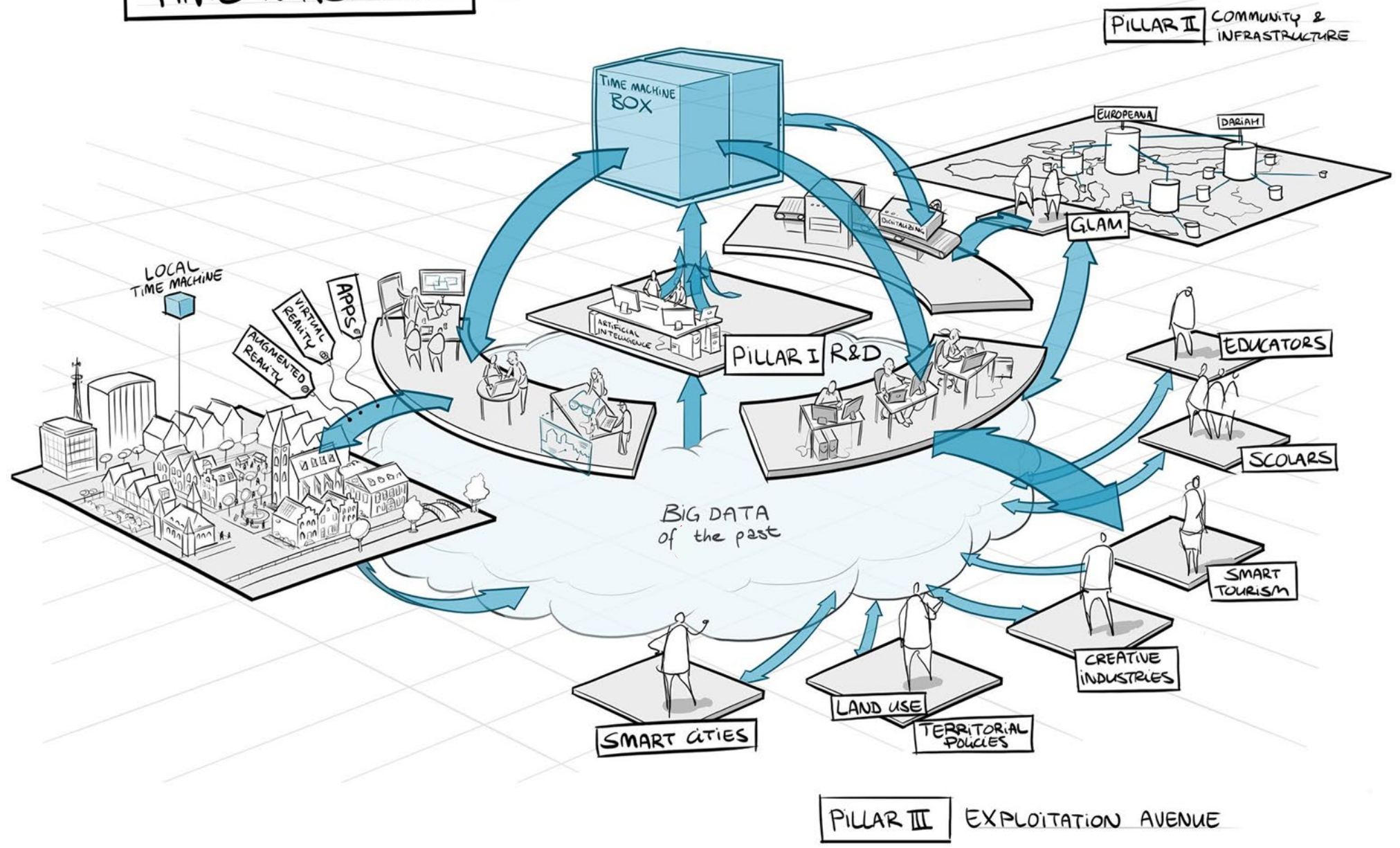
With Time Machine, Europe will build **the first 4D mirror world**, connecting each place with the depth of its past and giving direct access to unique assets for studying, learning, deciding, creating and inventing a shared future.







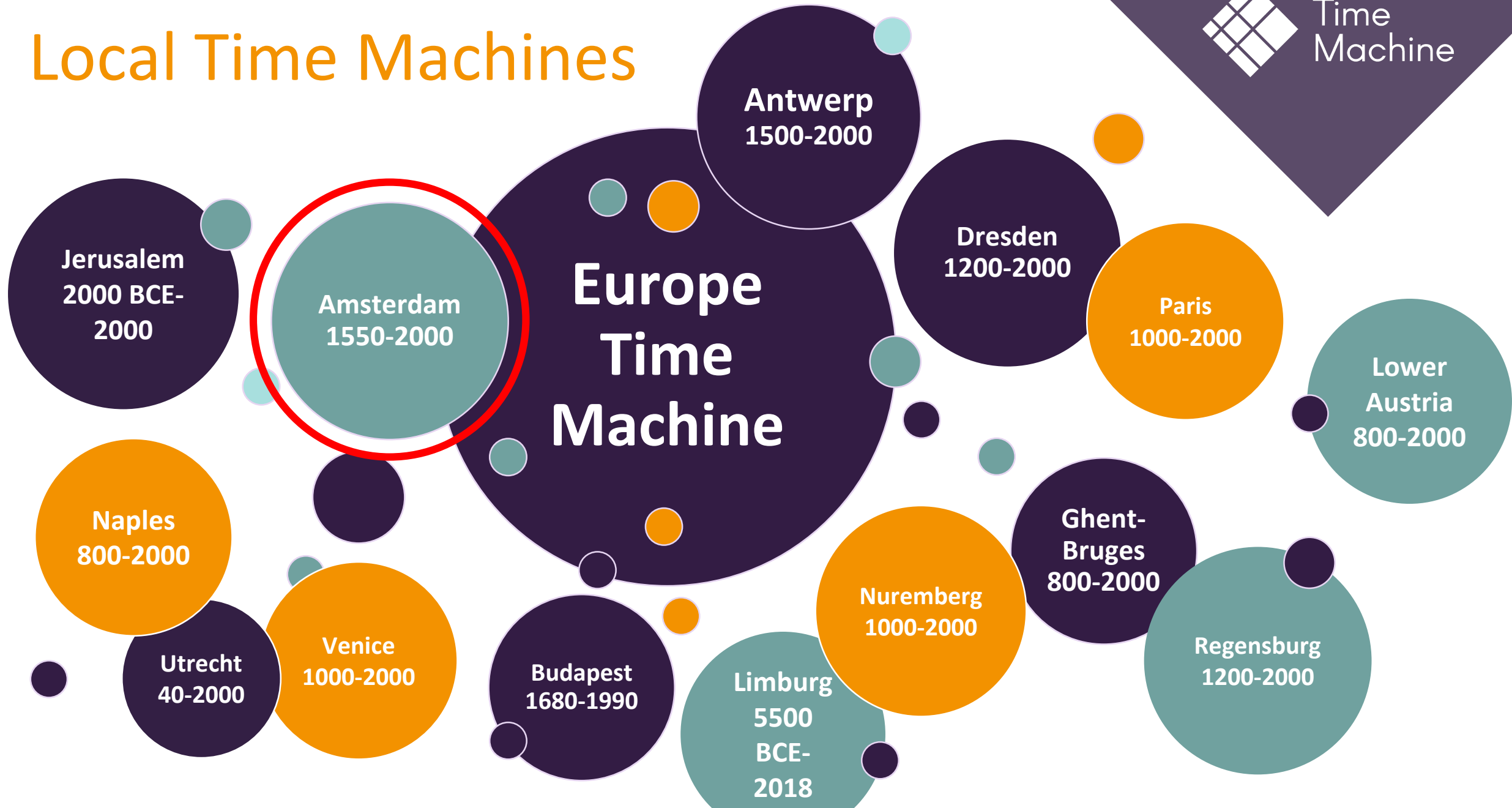
TIME MACHINE





Time
Machine

Local Time Machines

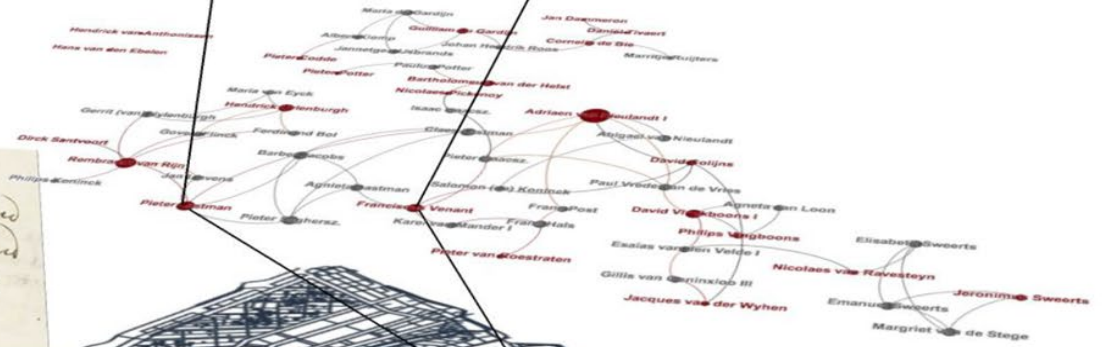


2. Amsterdam Time Machine

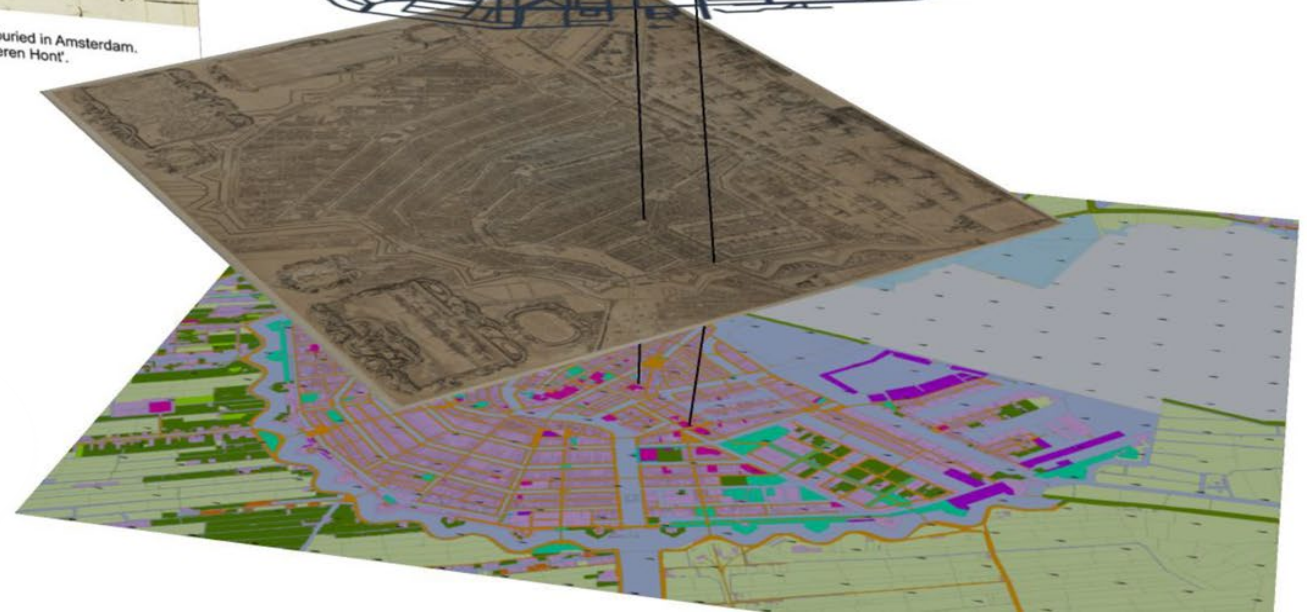




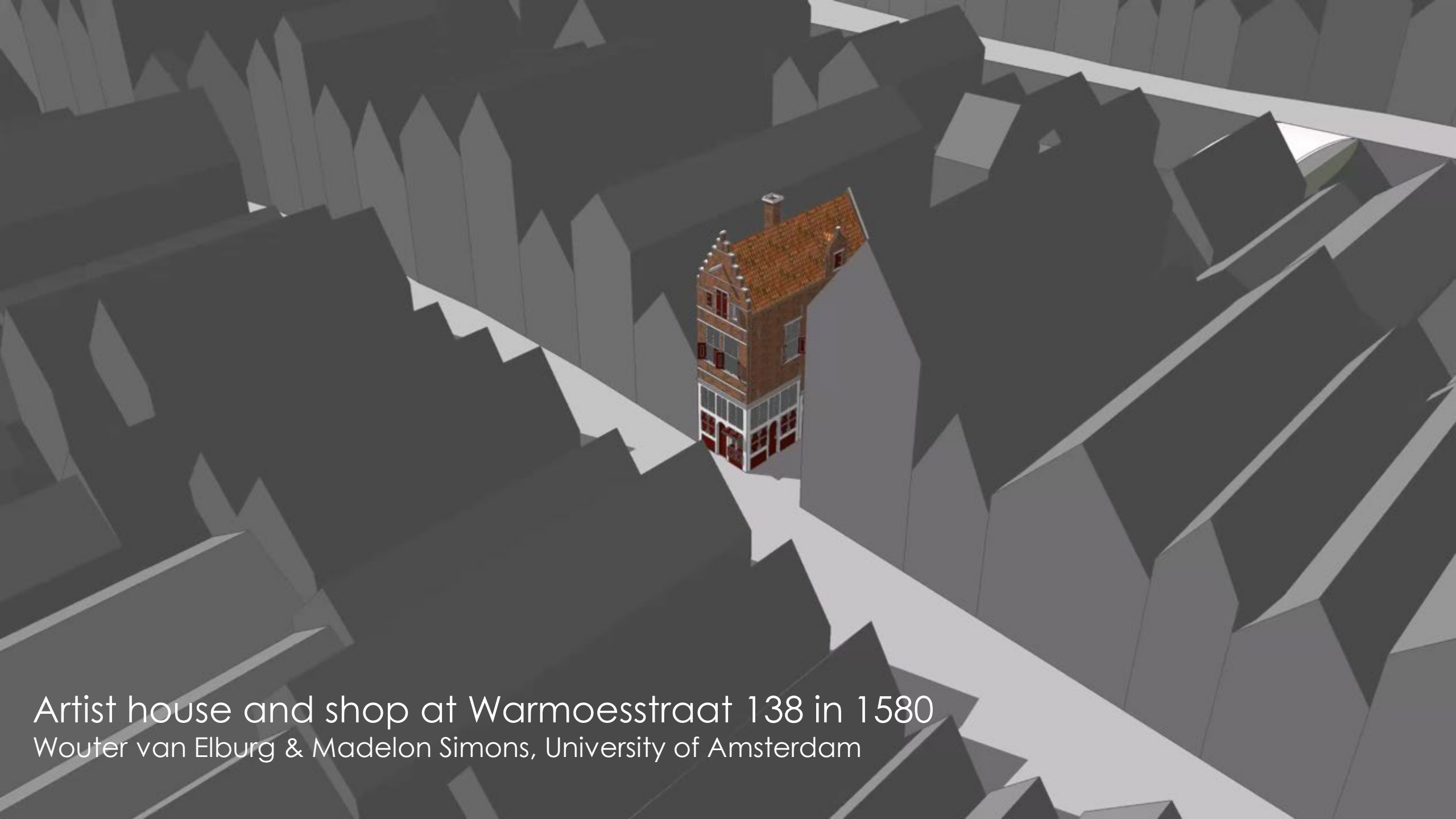
AMSTERDAM TIME MACHINE



29-02-1664 The painter Laurens Floor from Friedrichstadt is married to Sara van Ceulen. At time of his marriage he is living on the 'Zeedyck'
 17-09-1667 The painter Laurens Floor from Friedrichstadt is buried in Amsterdam. At the time of his death he was living 'opden Dam inde Wackeren Hont'.



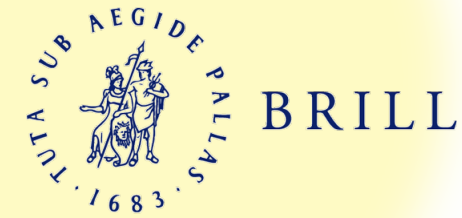
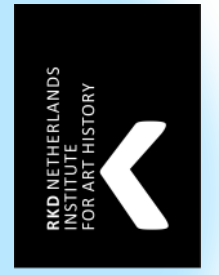
Picture Weixuan Li, Virtual Interiors Project (Huygens ING/UvA)



Artist house and shop at Warmoesstraat 138 in 1580
Wouter van Elburg & Madelon Simons, University of Amsterdam

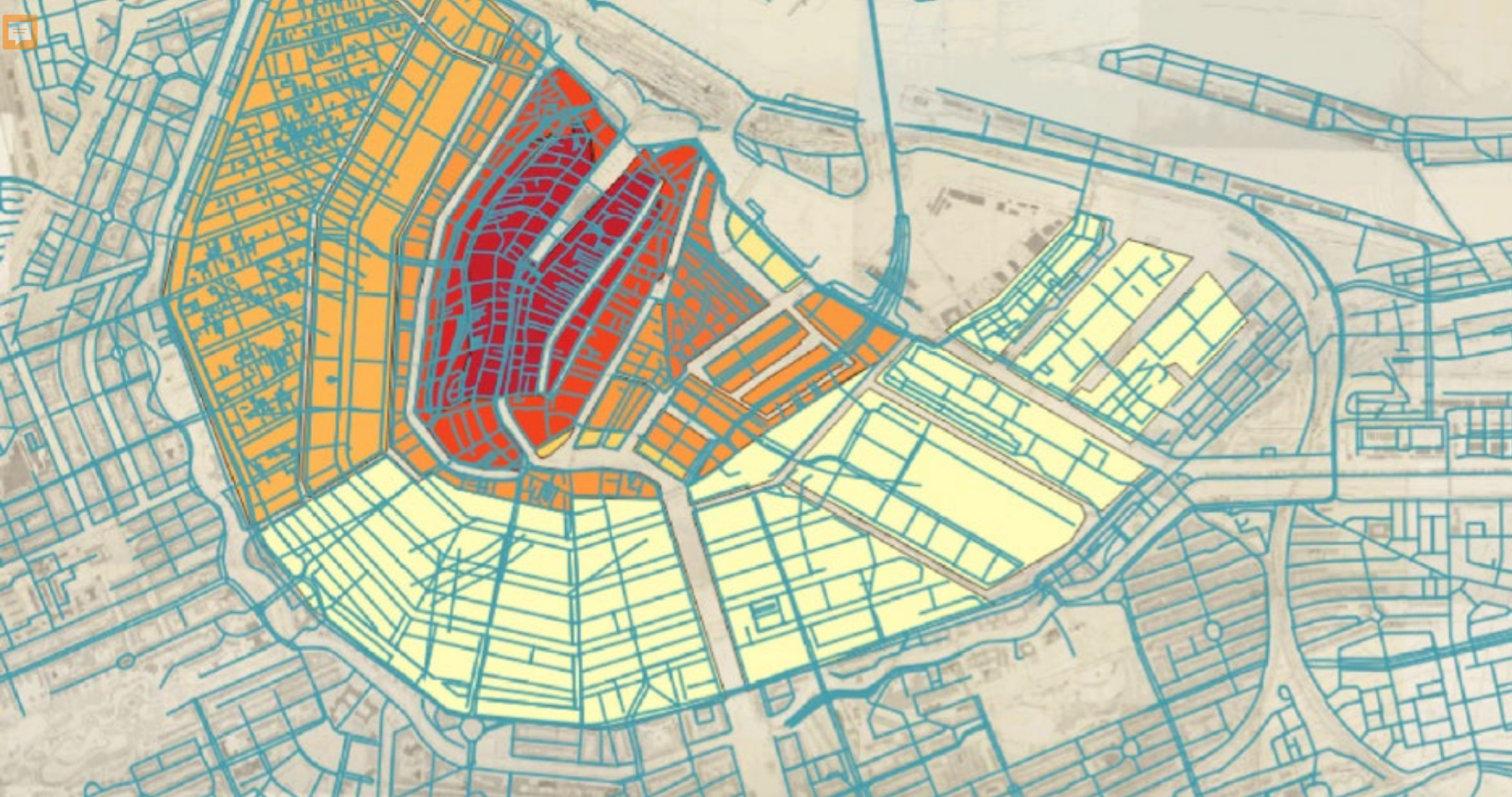


RIJKS MUSEUM



in mijn buurt





A Geographical Data-Infrastructure for Historical Amsterdam

Hans Mol, Mark Raat, Thomas Vermaut



AMSTERDAM TIME MACHINE

a new GIS

- now: 19th + early 20th C
- next: 17th + 18th C
- 52.684 proxies for location
- semantic concept + geographical location
- knowledge graph



AMSTERDAM TIME MACHINE

Modeling the City in 4D



UNIVERSITEIT VAN AMSTERDAM

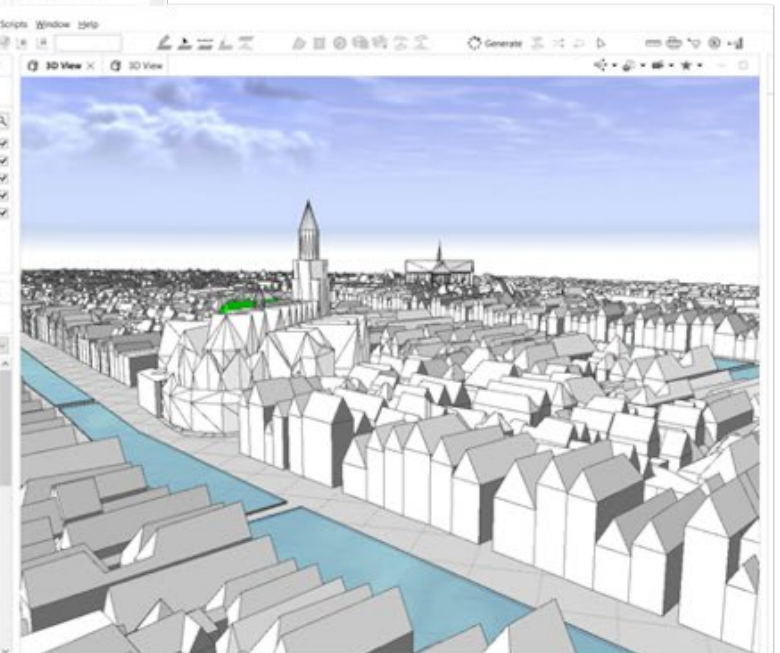
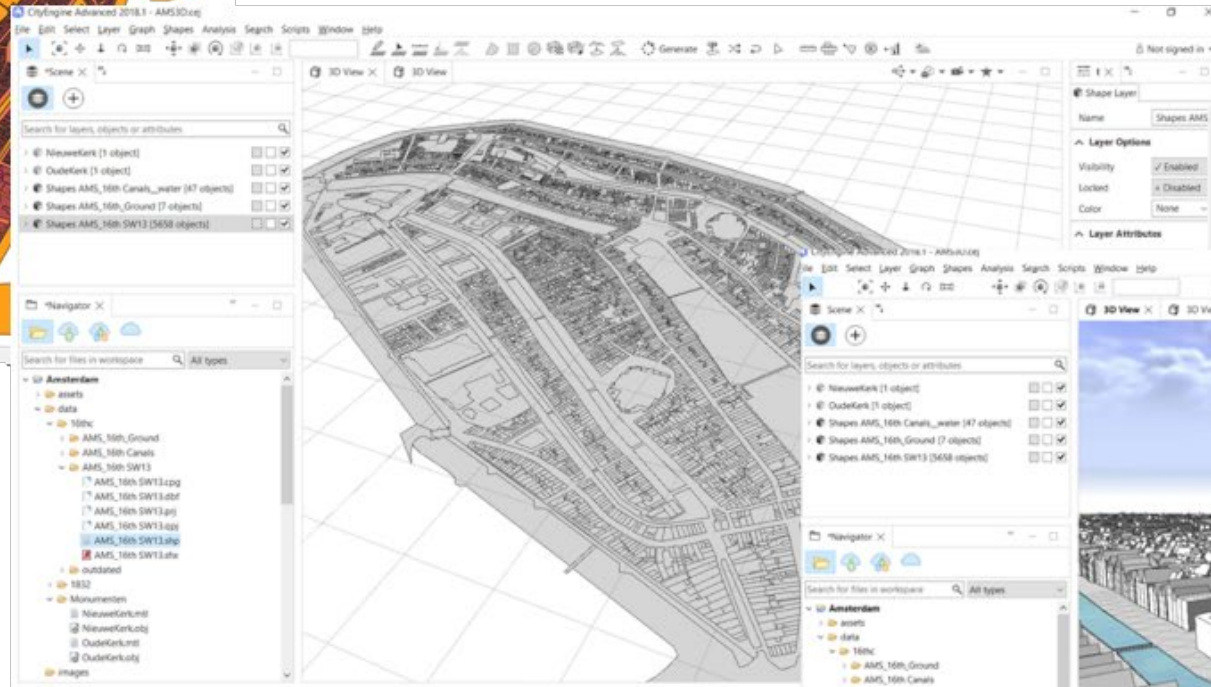
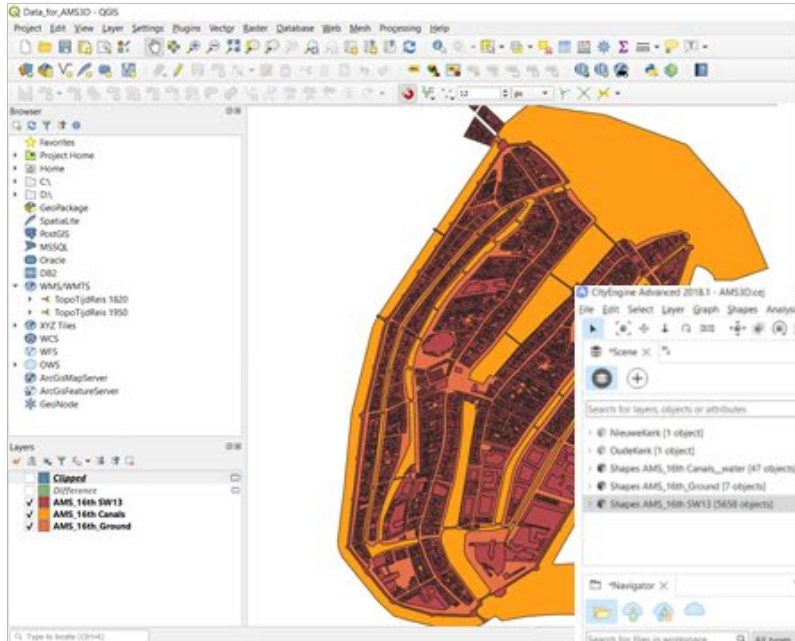
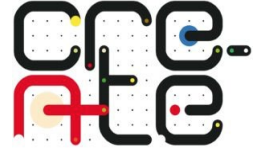


Image by Chiara Piccoli



Informatie ophalen X

Naam

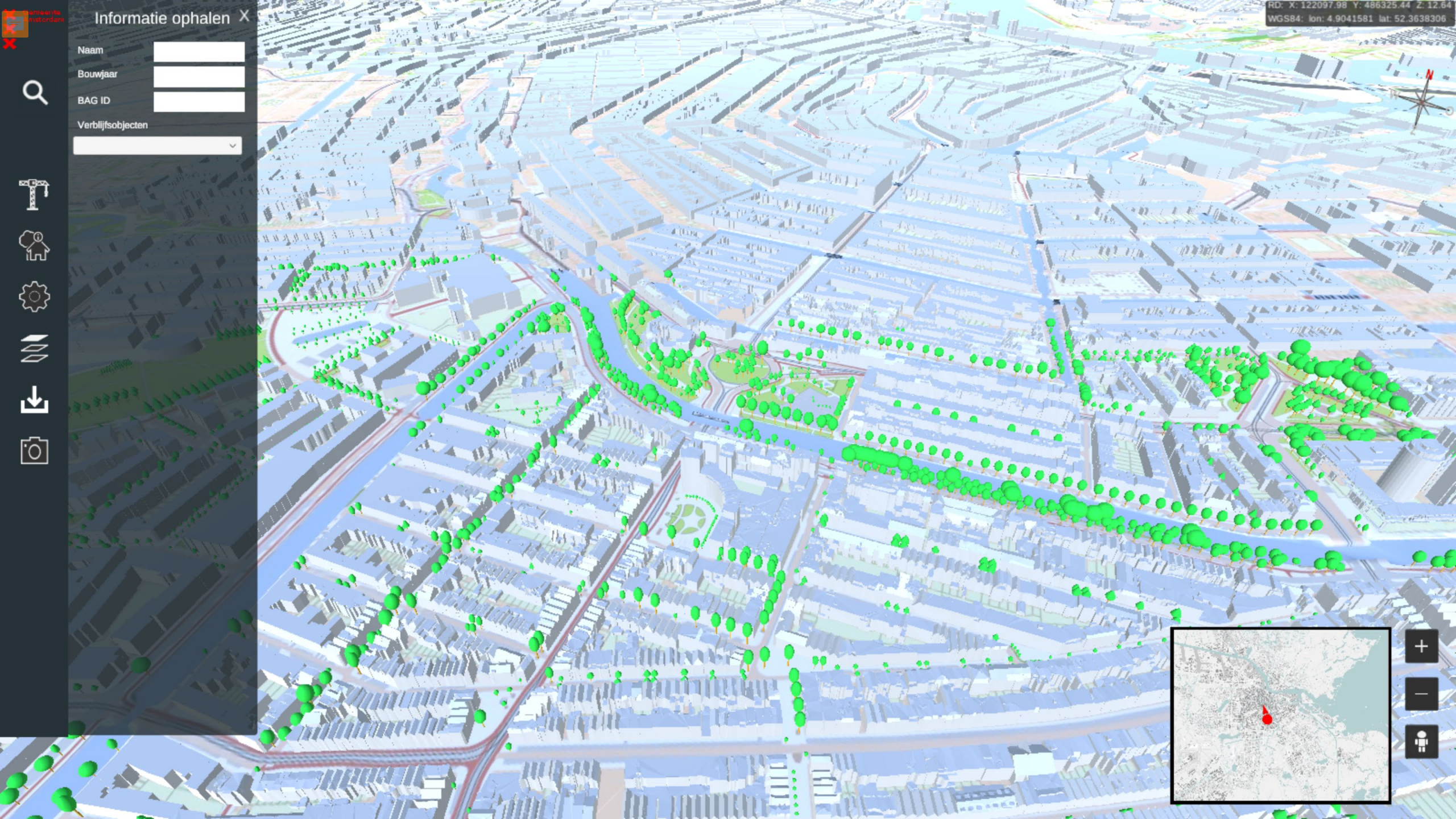
Bouwjaar

BAG ID

Verblijfsobjecten

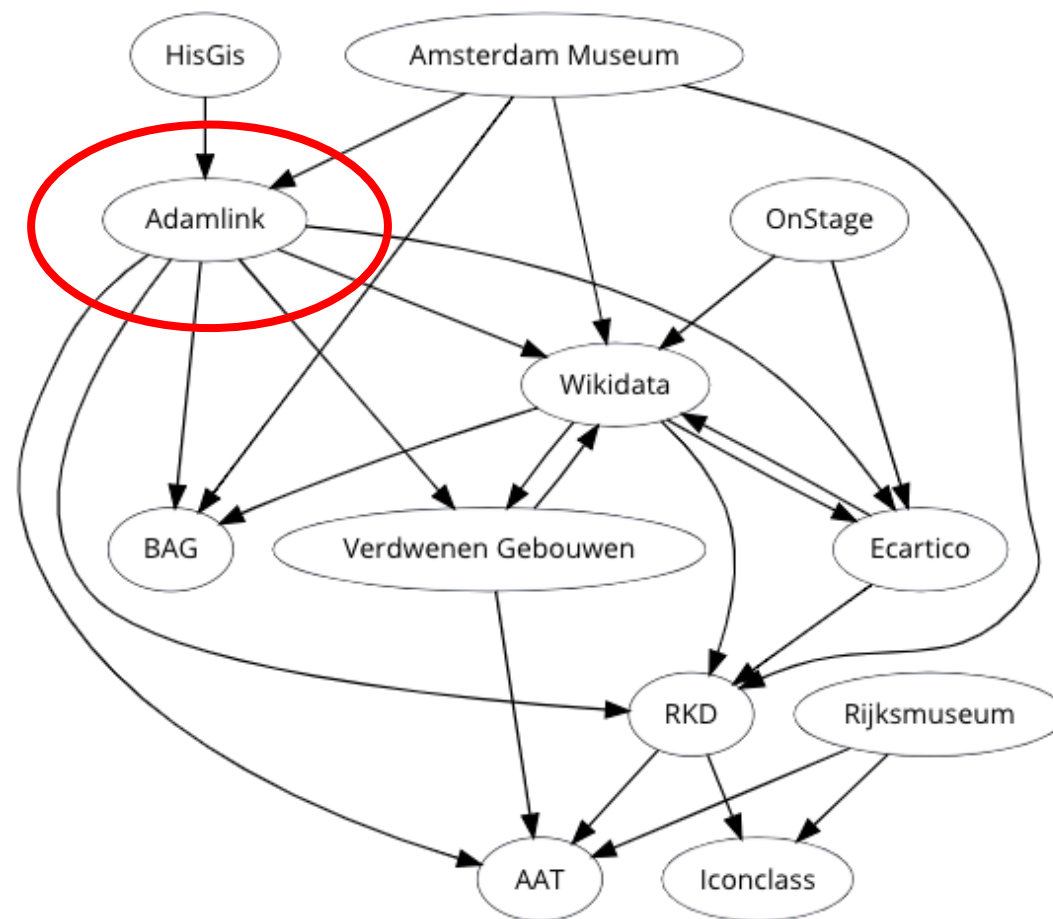


RD: X: 122097.98 Y: 486325.44 Z: 12.64
WGS84: lon: 4.9041581 lat: 52.3638306



ALiDa

Amsterdam Linked Data



Filter by tag: geography persons events heritage objects

vocabulary

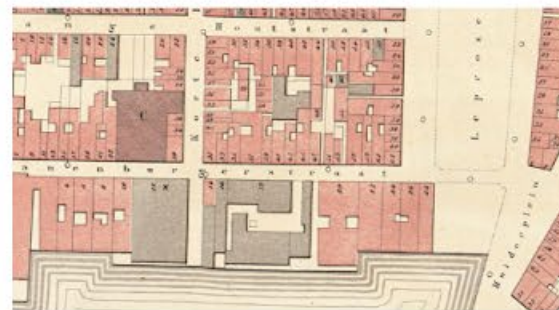
A'dam op de kaart



De kaarten van het stadsarchief waren alleen in de beeldbank terug te vinden. Totdat Bert en Menno ze op de HackaLOD ook geografisch ontsloten.

Op [github](#) meer informatie en links naar beide applicaties.

A'dam op de kaart 2



In een tweede prototype zoek je ook met andere parameters, zoals deelcollectie en tijd. En SPARQL liefhebbers komen hier ook aan hun trekken.

Pionieren



Zand, net gesloten straten, de eerste boompjes in de grond. Eens kijken of we dit soort foto's van pionierend Amsterdam boven water krijgen met een query die beeld ophaalt dat genomen is binnen twee jaar na aanleg van een straat.

Straatbeelden



De straatbeelden - van verschillende Amsterdamse collecties - komen uit de Adamlink sparql endpoint, de straatgeometrie en het autocomplete afrolmenuutje uit de referentiedata.

Portretten per beroep



Verdwenen straten

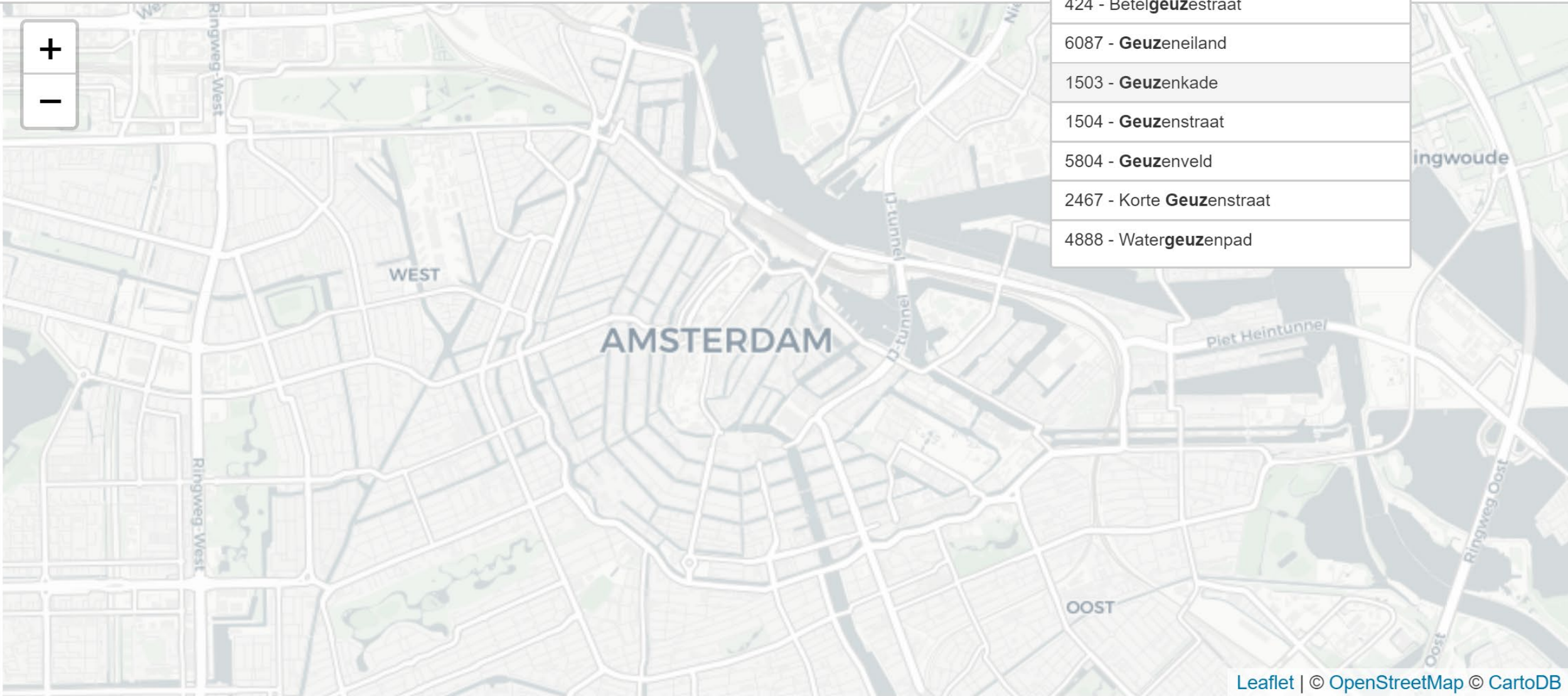


Jaarkaart



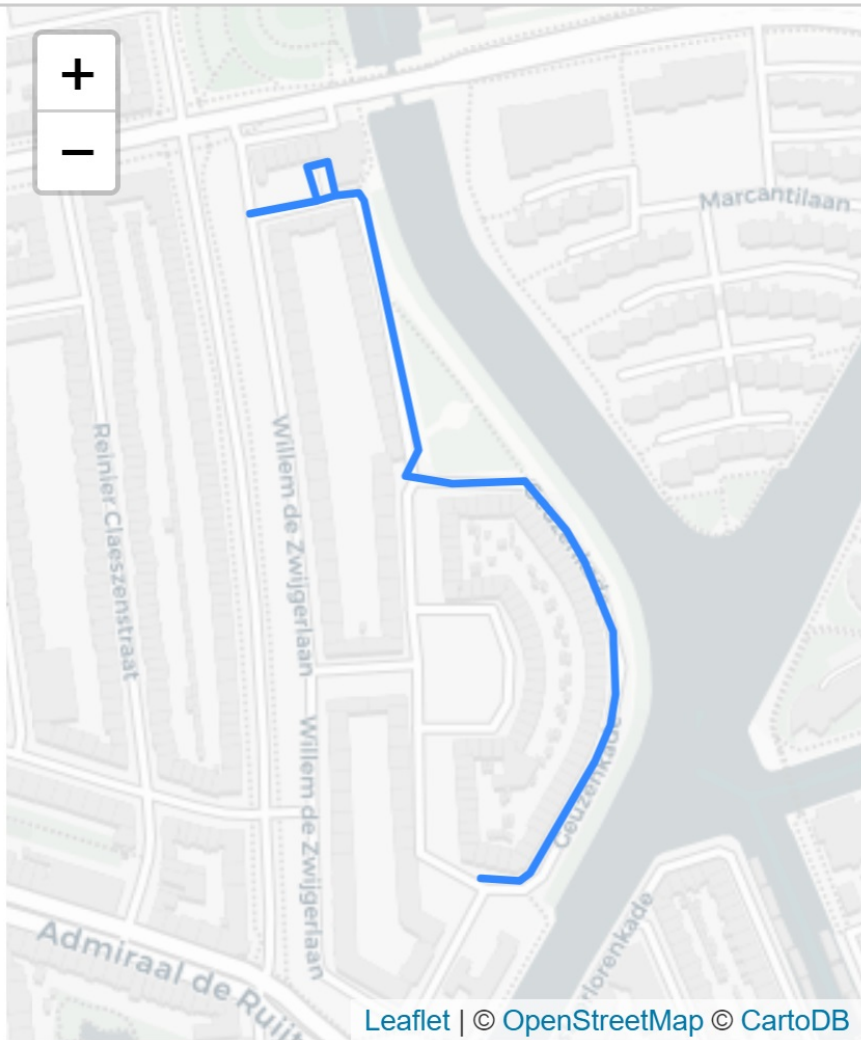
A'dam verbeeld



 × 🔍

Zoek rechtsboven op een Amsterdame straat.

Daarna worden de bijbehorende afbeeldingen in de AdamLink triplestore opgezocht.



Totaal aantal afbeeldingen: 54.



Geuzenkade

<https://adamlink.nl/geo/street/geuzenkade/1503>




Geuzenkade

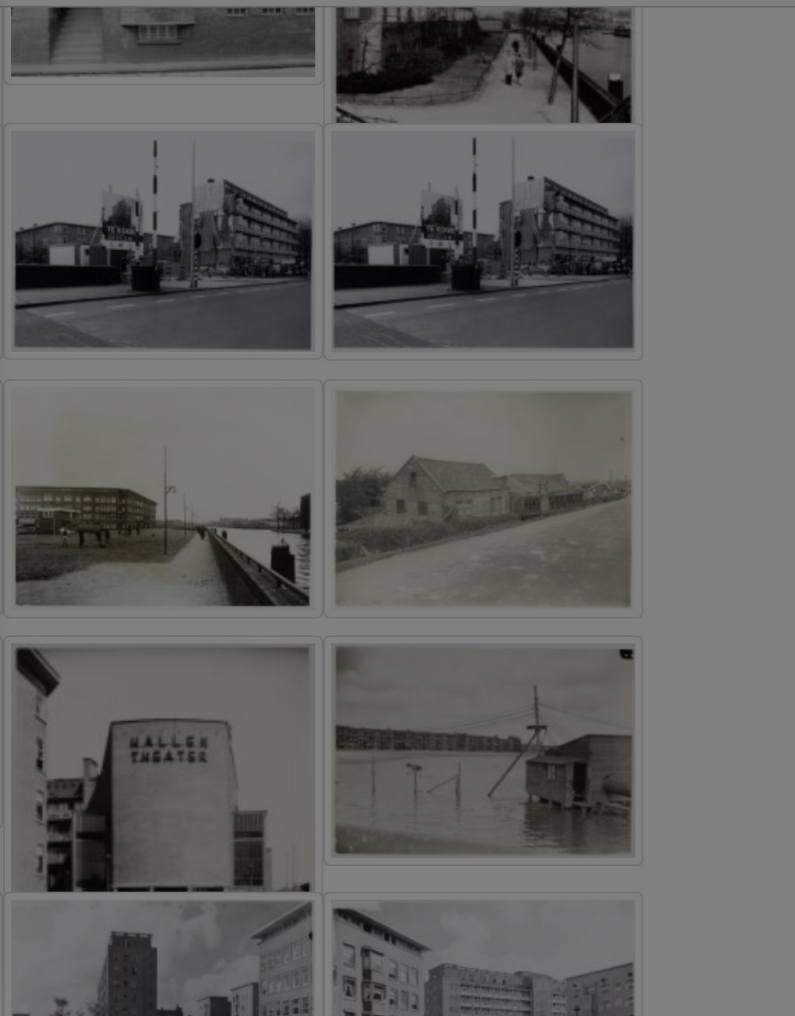
<https://adamlink.nl/geo/street/geuzenkade/1503>

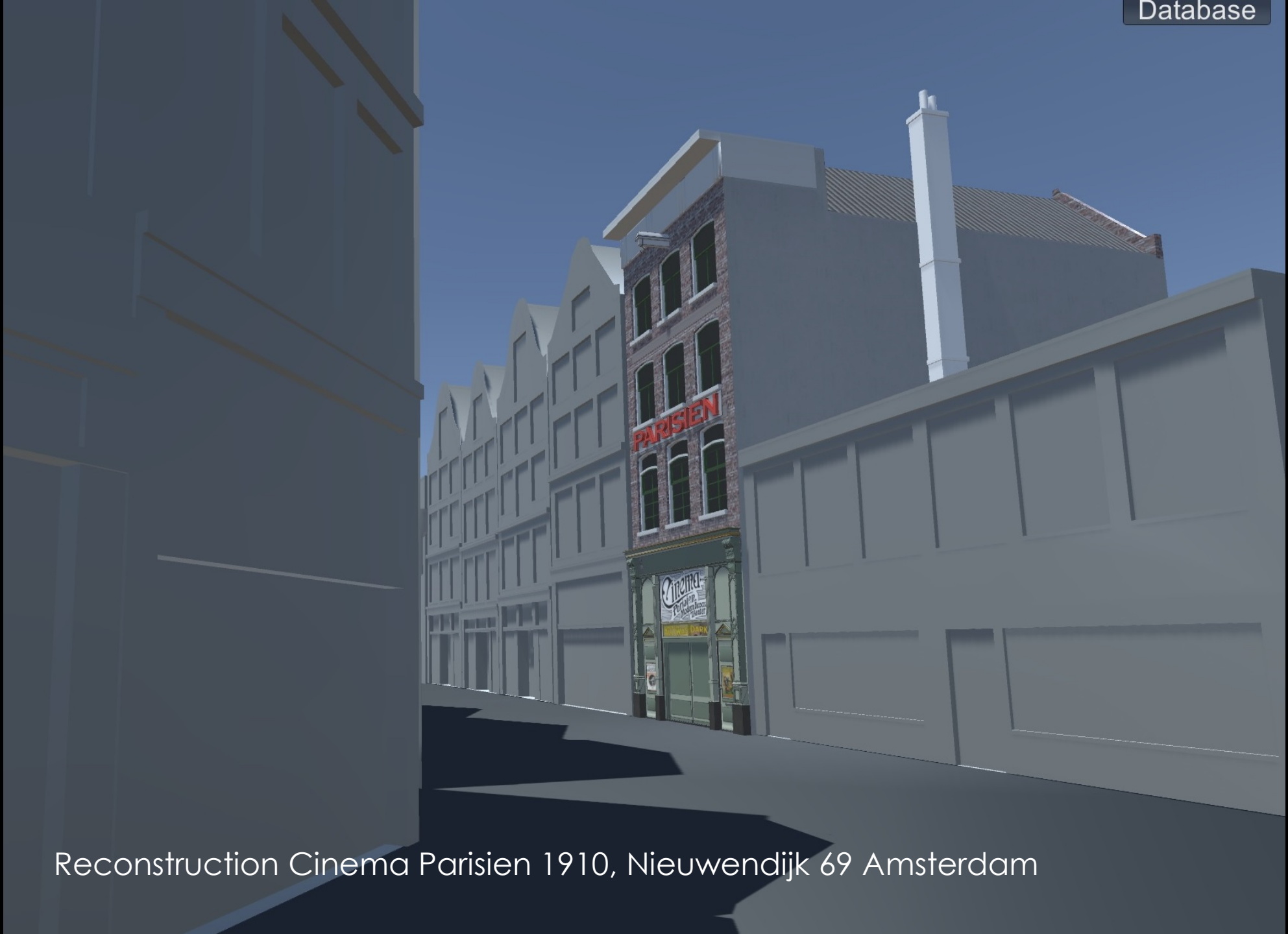
Adamlink Lab Verdwenen straten Straatbeelden Geuzenkade x

Achterzijde van de bioscoop, genaamd het Hallen Theater, Jan van Galenstraat 41, gezien vanaf de Geuzenkade



Bekijk collectie-item



Reconstruction Cinema Parisien 1910, Nieuwendijk 69 Amsterdam



Database

Reconstruction Cinema Parisien 1910, Nieuwendijk 69 Amsterdam

Julia Noordegraaf, Loes Opgenhaffen, Ivan Kisjes, Norbert Bakker (UvA-CREATE)

3. Innovating Scholarship





THE FREEDOM OF THE STREETS

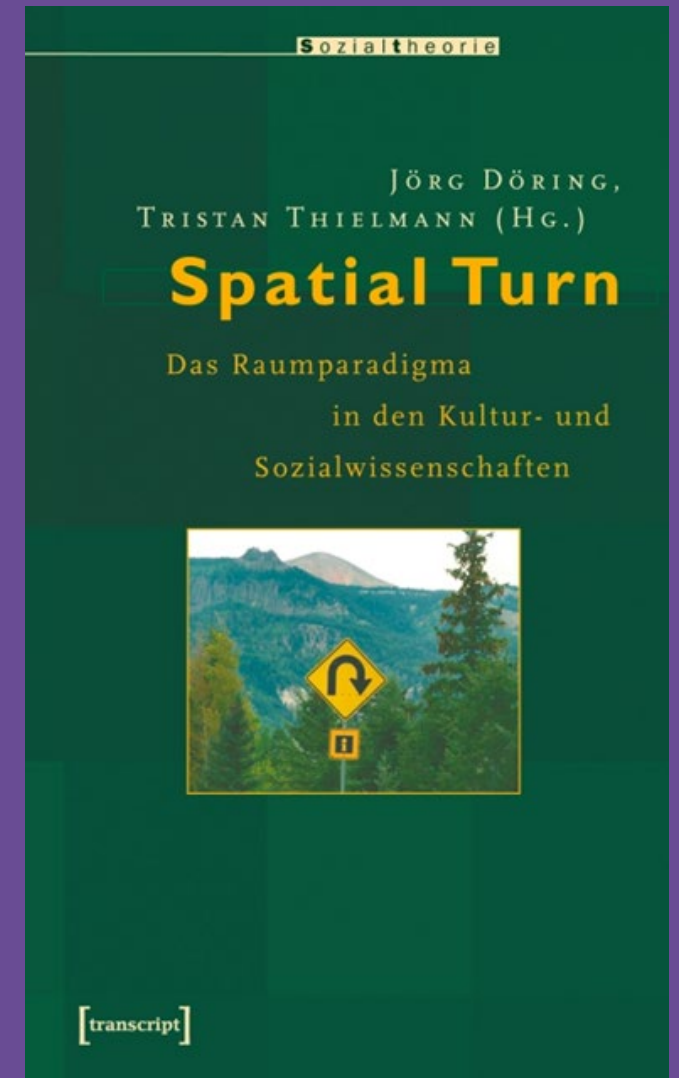
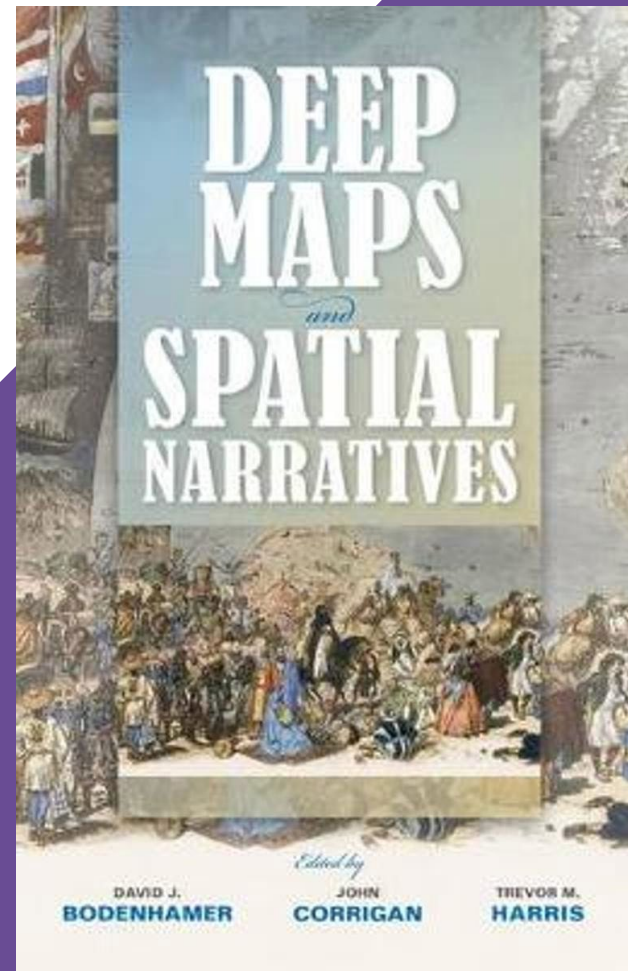
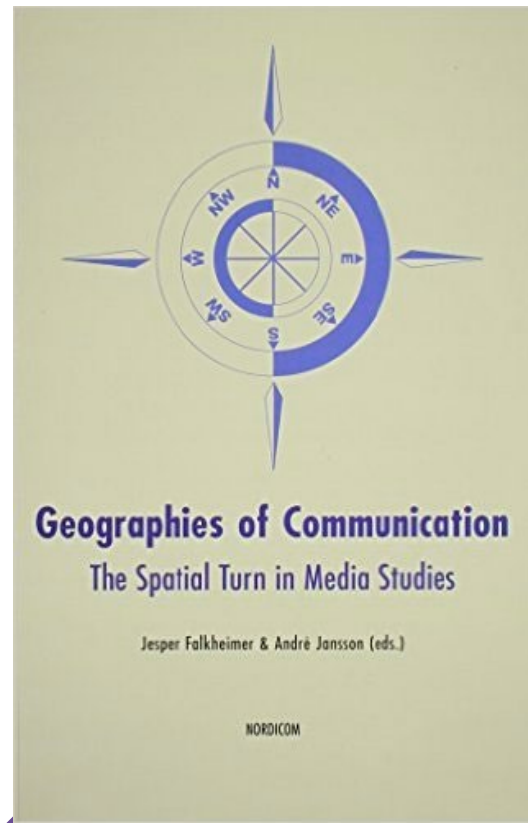
GENDER AND URBAN SPACE IN EURASIA 1600-1850




National Research
Council Innovative
Research Incentives
project Danielle van
den Heuvel



The Spatial Turn in the Humanities and Social Sciences

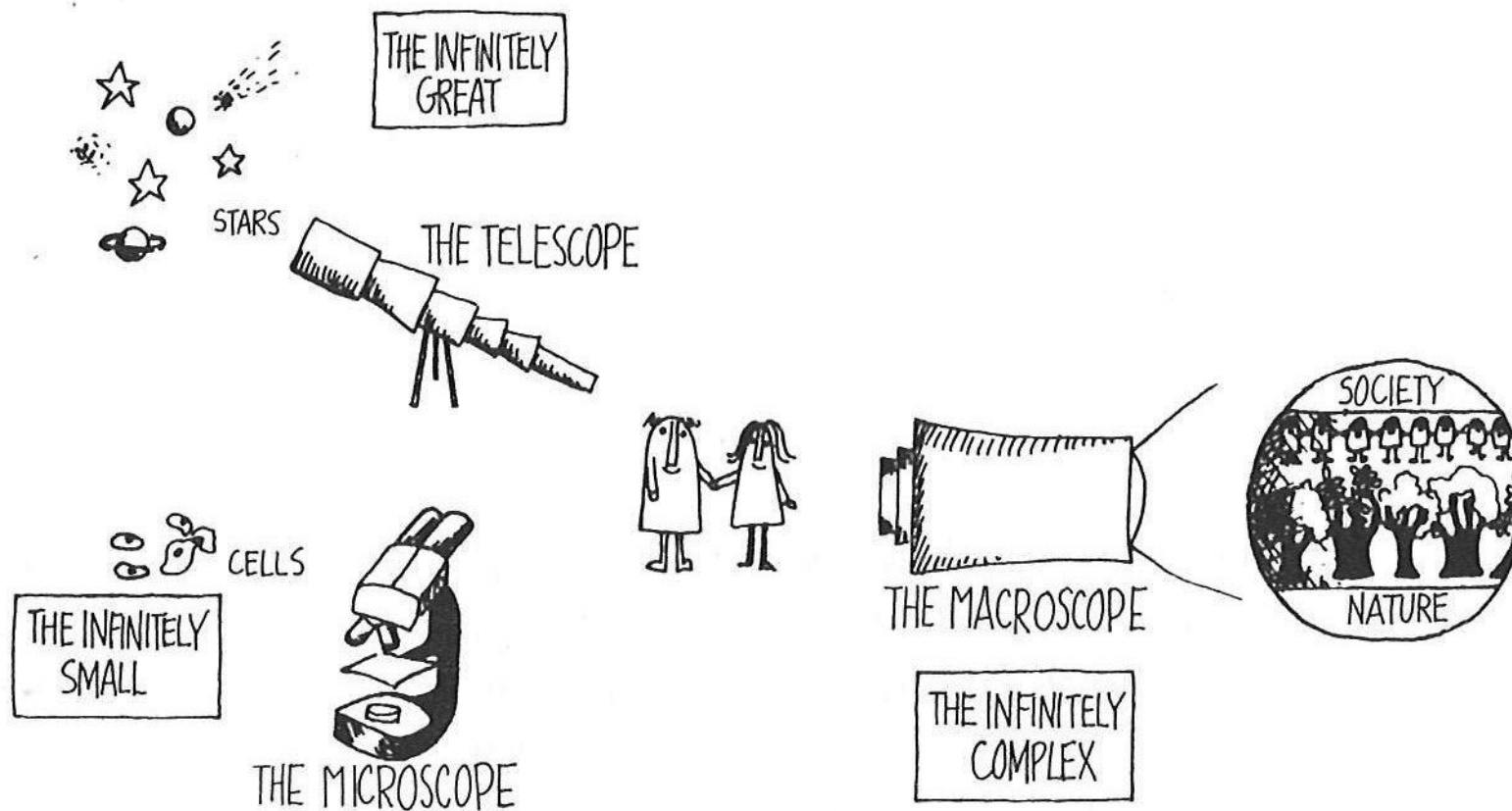




“In the social sciences and humanities, scholars returned to urban history and environmental studies with a renewed interest in the microcosms of everyday life and the macrocosms of global flows.”

Jo Guldi, 'What is the Spatial Turn?' *Spatial Humanities: A Project of the Institute for Enabling Geospatial Scholarship*. University of Virginia Library Scholar's Lab, <http://spatial.scholarslab.org/spatial-turn/what-is-the-spatial-turn/>

Scalable Humanities Research



From: Joël de Rosnay, *The Macroscope: A New World Scientific System*. New York: Harper & Row, 1979.



Virtual Interiors as Interfaces for Big Historical Data



Spatial analysis of **cultural production and consumption**





Copy motifs

Looking at Rembrandt

Mutual influence



Rembrandt
Dated:1640-1640



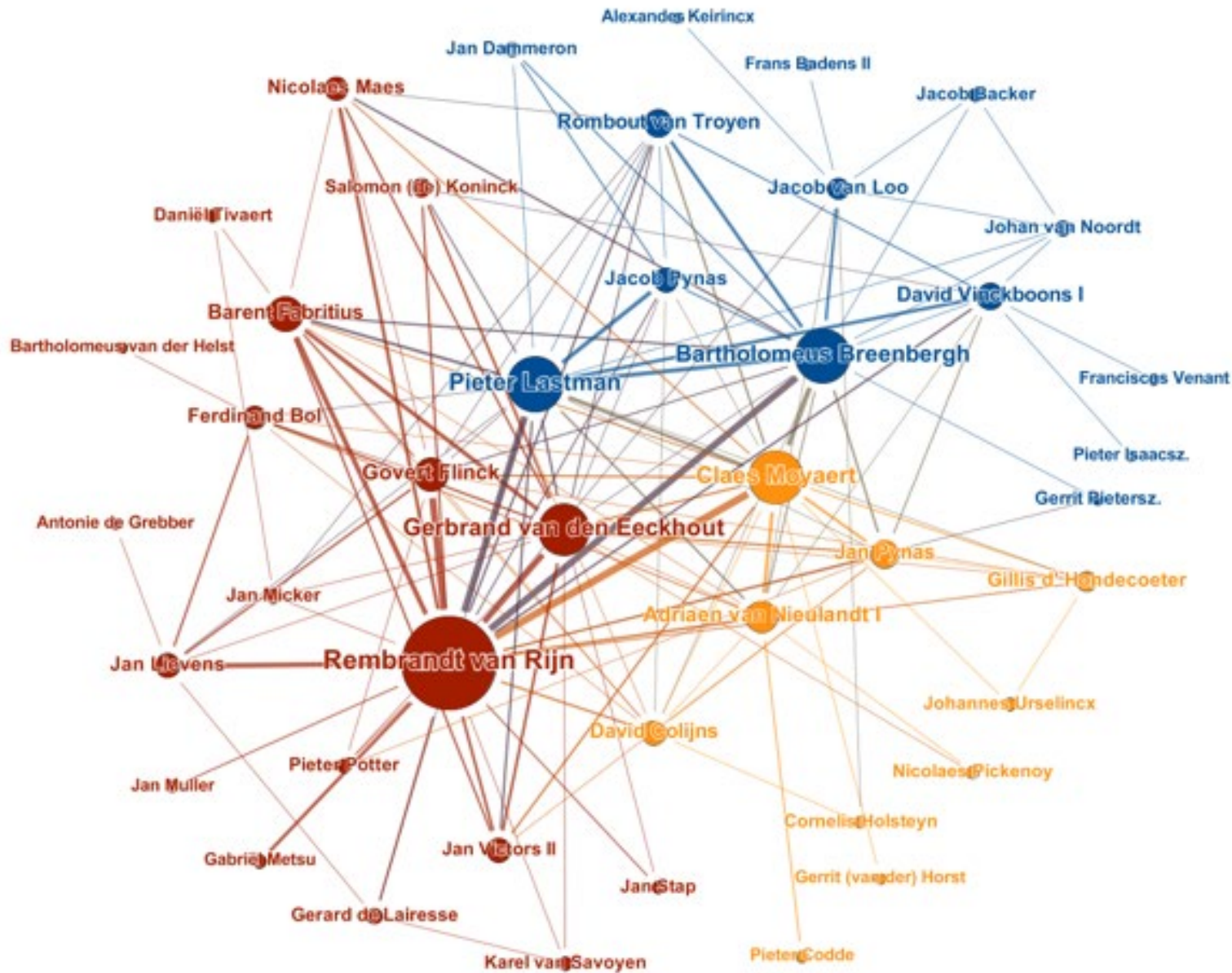
Pieter Potter
Dated:1620-1652



Govert Flinck
Dated:1639-1639



Ferdinand Bol
Dated:1647-1647



Weixuan Li:
visualization network
of early modern
Amsterdam painters
by choice of topic



3,5 km archive

760 cupboards

4,5 million acts (1578-1915)

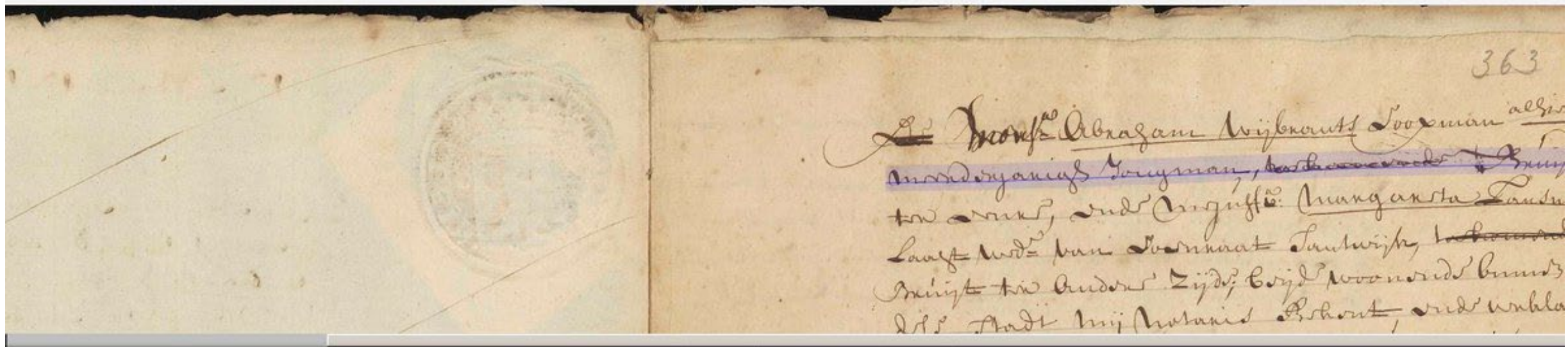
5075: Archief van de Notarissen ter Standplaats Amsterdam

[> Inleiding](#)
[Inventaris](#)
[PDF printversie](#)

1	JAN JANSZ. PILORIUS	928 BESTANDEN
2	ELLERT DE VEER	162 BESTANDEN
6	Band. 1. 1586 Juni 23-1589 November 1; Minuutacten zonder index. 1586 - 1589	101 bestanden
7	Band. 2. 1588 Mei 16-1599 Juli; Minuutacten en afschriften zonder index. 1588 - 1599	61 bestanden
3	CORNELIS ARISZ. VAN HUIJSWAERT	263 BESTANDEN
4	SALOMON HENRIX	2.132 BESTANDEN
5	JACOB GIJSBERTSZ	8.932 BESTANDEN
6	LIEVEN HEIJLINC	6.393 BESTANDEN
7	DAVID MOSTART	1.543 BESTANDEN



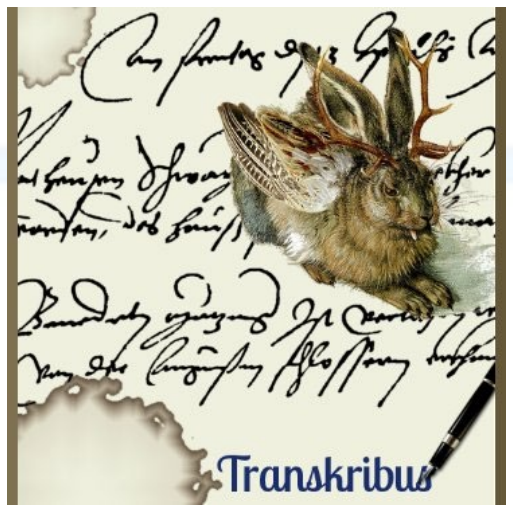
DAVID DES POMMARE 1698-1724 - 3 - 6932 - KLAB05138000163



x² abc Special Characters ?! Unclear

6 dam residerende, in presentie van de naergenoemde getuijgen,

- Text Region 3
- 1 363
 - 2 alhier
 - 3 ### Mons^r Abraham Wijbrants Coopman
 - 4 |
 - 5
 - 6



26 augustus 1567, inventaris van de goederen van Barnardijn Gaerlofsz (Warmoesstraat 46)

Verblijfplaats: SAA 5028, inv.nr. 549 (Annotatiën van de goederen), fol. 6v-8v.

[Fol. 6v]

[...] **Int voorhuys**

Een laeckens parse, een staelen booge, een vleischgaffel, een slaepbanck met een bedde ende zijn toebehooren daer inne,
Item een tonnestoel, vier witte beugel stoelen, een roodt cussen, een groen cussen, een stroijen stoel
Item een tresoer met een tafereel daer op,

[fol. 7]

Item mappa mundi in lijsten met noch een ander grote chaerte

Item een contrefeijsel van Barnardijn ende zijn eeder huijsfrouwe in twee paneelen
Item twee schrijff leijen met drie stockbe[...]ssen
Item een comptoir met een riem papiers ende een nijeuw schrijfbouck daer inne
Item achter op twee solder elcx omtrent achteen lasten rogge ende opt laechste noch omtrent vijff lasten rogge bij ghijsinghe van Adriaen Marchelisz ende Fformer Cornelisz gezworeen coornmeters,
Item opte voizrolder omtrent twaelf lasten rogge bij raminge als vooren [i.m. dit coorn es ontslagen]

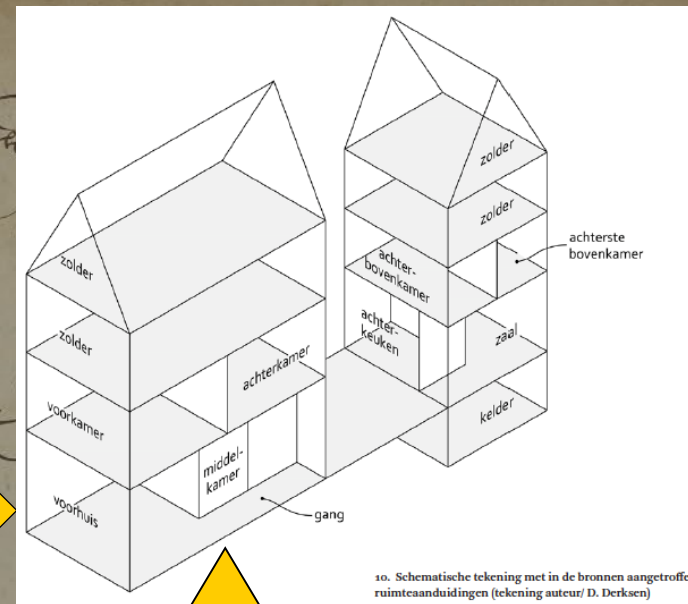
[fol. 7v]

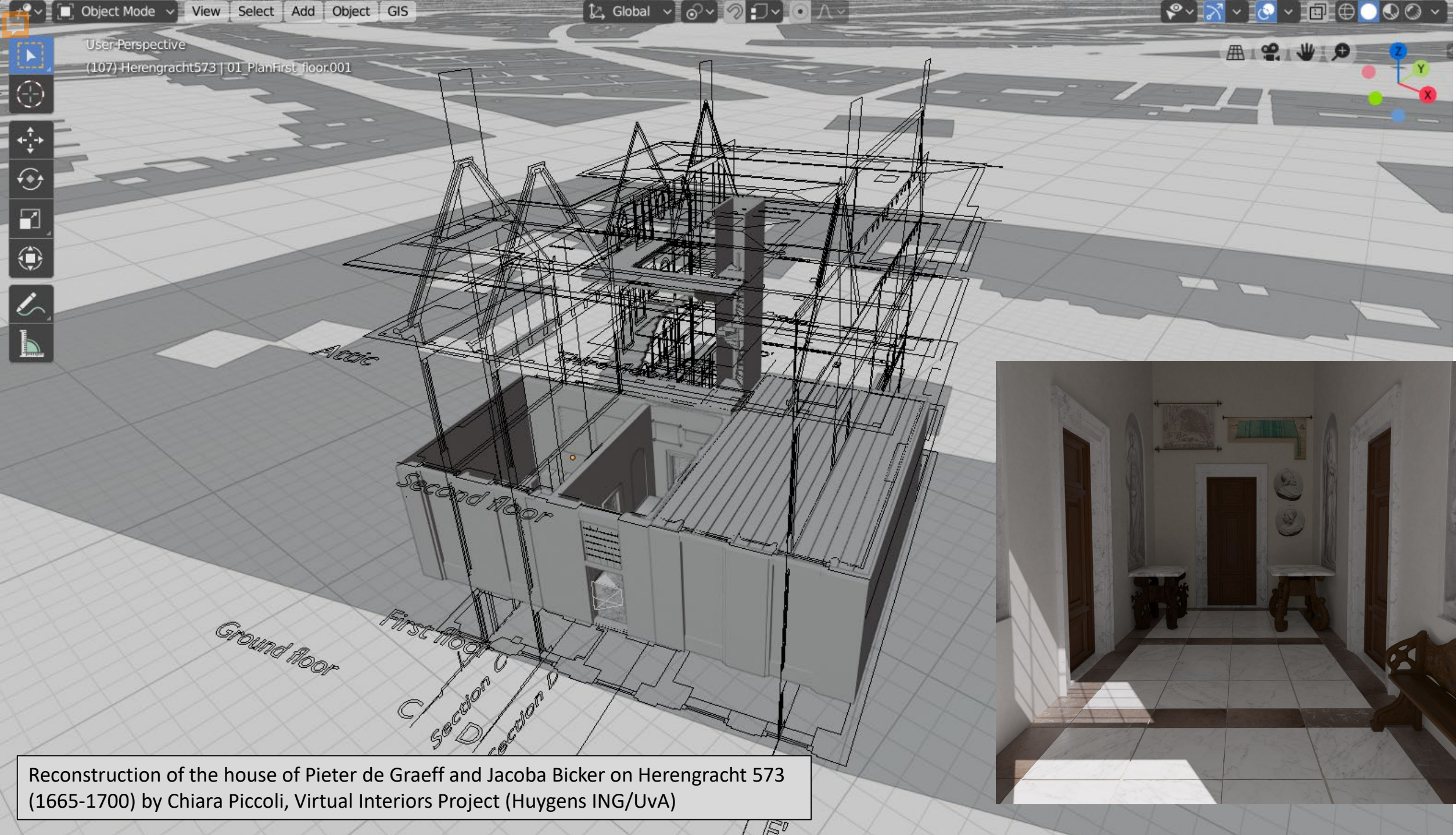
Inde middelcamer

Een trecktafel met een tafelcleet

Item een chaerte

Item een ijseren beugel, een hout een brander, een







Mapping Cultural Consumption



What will be the impact?

4. TIME MACHINE FOR SOCIETY





Crowdsourcing and Citizen Science



GLAM  **WIKI**

 Time
Machine

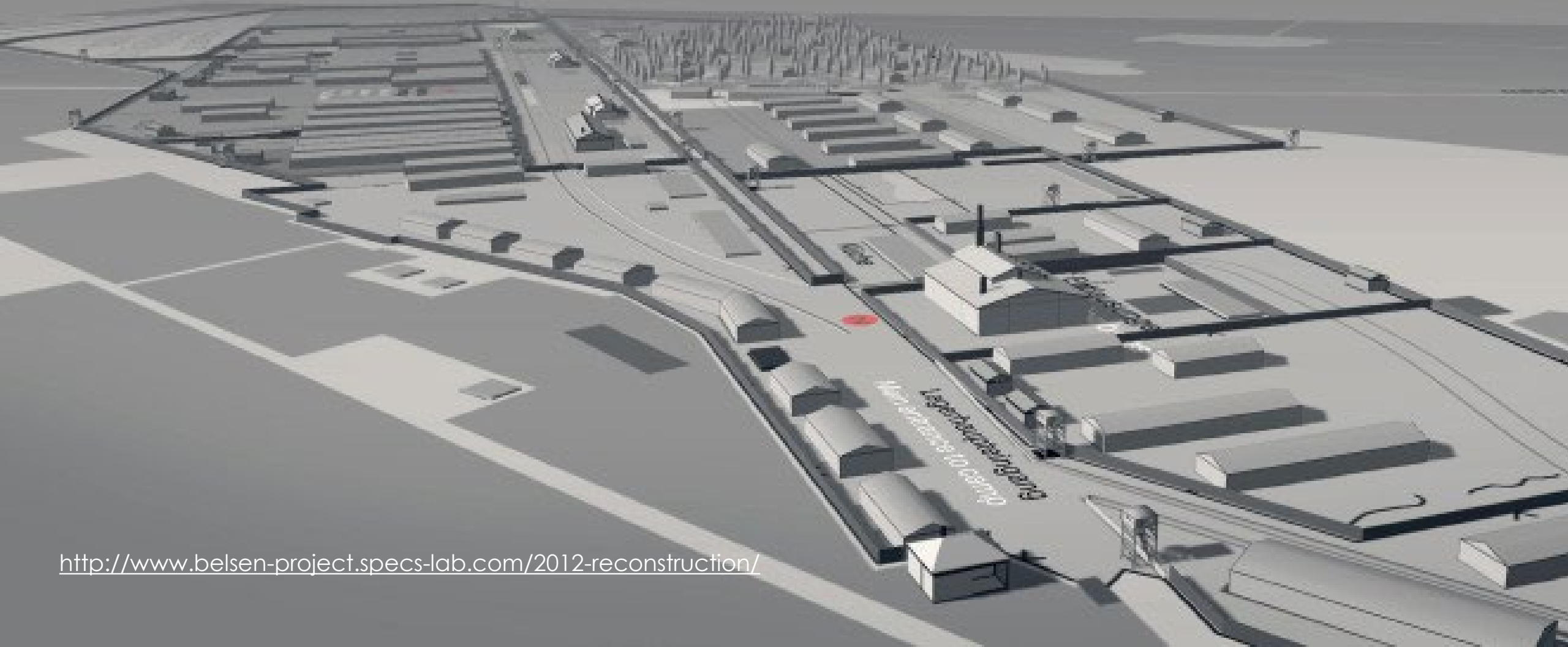
Time Machine for Education and Social Cohesion

Give historical data **new relevance**



*Oorlog
in
mijn
vuwst*

Virtual reconstruction of Bergen-Belsen by the Future Memory Foundation



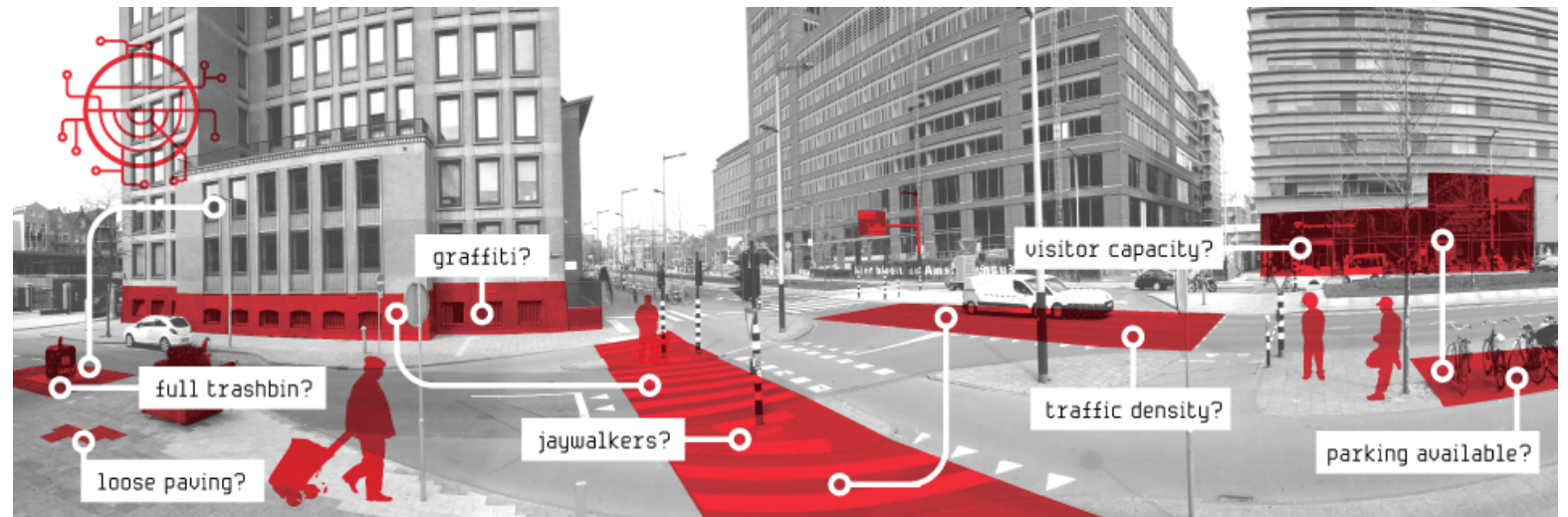
<http://www.belsen-project.specs-lab.com/2012-reconstruction/>



<http://www.belsen-project.specs-lab.com/2012-reconstruction/>

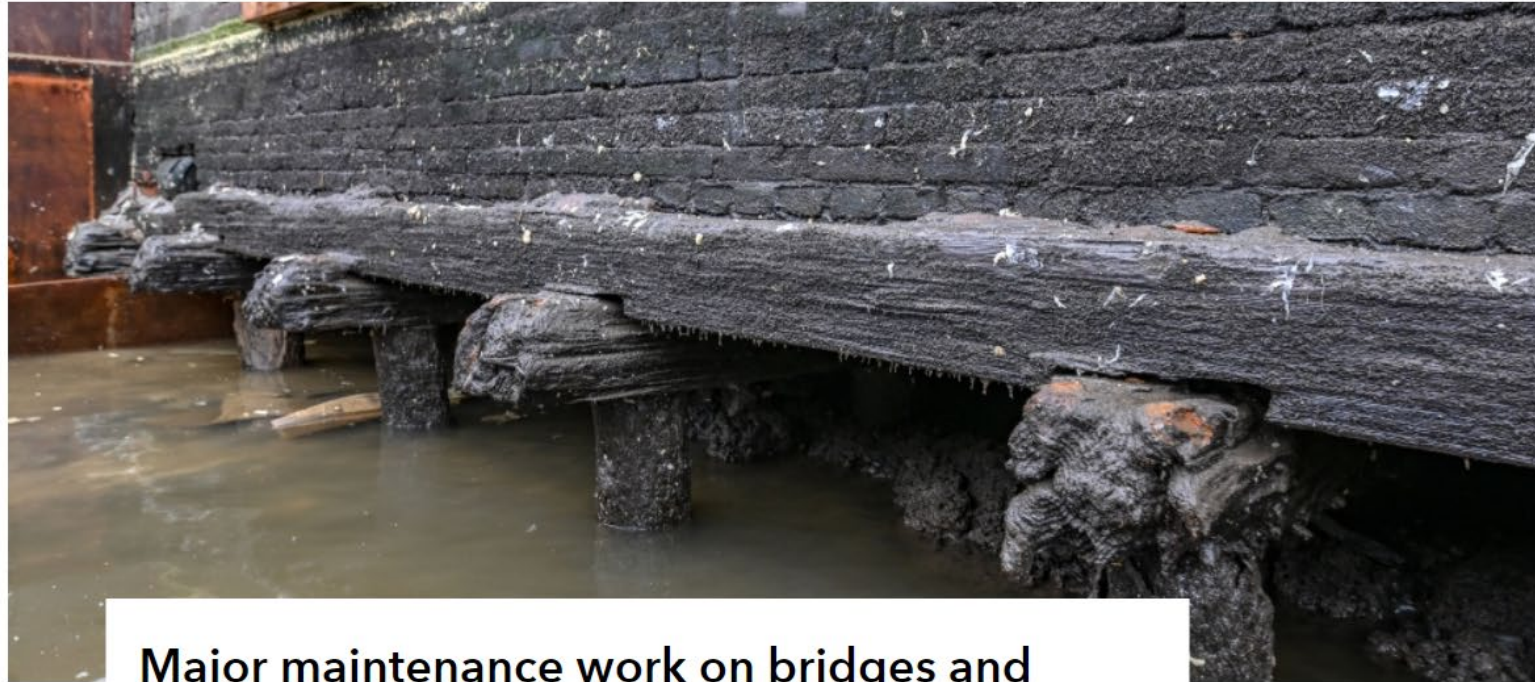
Time Machine for Smart Cities...

Provide a **longitudinal perspective**
to present-day problems



✘ DataLab
✘ Amsterdam
✘

 Time
Machine



Major maintenance work on bridges and canal walls

14 February 2019

Amsterdam, city of water, has around 1,600 bridges and 600 kilometres of canal walls. At least 10 kilometres of the city's 200 kilometres of brick canal walls are in a poor state of repair, and there is an increased risk of subsidence. Maintenance work is needed without delay.

Conclusion



The Time Machine is...

An international **collaboration**
to bring 5000 years of European history to life

Digitising millions of **historical documents**, paintings and monuments

The **largest** computer simulation ever developed

An **open access**, interactive resource

Time Machine will...

Revolutionise scholarship, education, culture, media, tourism and policymaking

Give historical data **new relevance**

Contextualise history through advanced AI

Modernize the institutions that archive Europe's history



LET US CREATE A UNIQUE ALLIANCE OF
THE MOST CAPABLE PLAYERS IN SCIENCE,
TECHNOLOGY AND CULTURAL HERITAGE!

<https://www.timemachine.eu/join-in/>



Czech Republic – Eva
Vodochodská

Librarian of the Benedictine monastery library
in Broumov



Estonia – Birgit Kibal

Head of communications and foreign affairs at
the National Archives of Estonia



Finland – Tomi Ahoranta

Development Manager at the National
Archives of Finland / Kansallisarkisto



Finland – Dr. Juha Henriksson

Director of Music Archive Finland



France – Dr. Valérie Gouet-



France – Anna Cristofol



France – David di Marco



Germany – Prof. Dr. Peter Bell

Follow Time Machine



@TimeMachineEU



@TimeMachineEU



#TimeMachine18



TimeMachine.eu