

# Do all roads lead to {Rome: LOC}?

Experiences and challenges with named entities in  
ancient and medieval corpora

Workshop @DHBenelux 2024

# Definition of Named Entity (NE)

- Named entities are real-world objects (e.g., persons, countries, organizations, etc.) that can be denoted with a proper name
- The term was coined during the *Message Understanding Conferences (MUC)-6 evaluation campaign* in 1995
- In information extraction, NEs are linguistic elements that act as a rigid designator for a referent (S. Kripke)



This is a lizard.



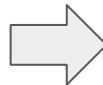
This is my lizard  
**Larry**.

It is a named  
entity

It is a real-world  
entity, but not a  
named entity

# Definition of Named Entity (NE)

- NE  $\neq$  proper noun      'Marjane is a feminine proper noun.'  
But ... Marjane who?
- Disambiguation/NE linking is a crucial part of Named Entity Recognition
- NEs are called with at least one proper noun (capitalized noun)



**Marjane Satrapi** is a French-Iranian graphic novelist.

# Computational Extraction of Names: Named Entity Recognition and Classification

- **What?**
  - People (groups, titles)
  - Places (cities, countries, rivers, peoples)
  - Events
  - Dates and times
  - Works (bibliography)
  - Citations
- **Why?**
  - Enrich digital representations of texts
  - Contextual display of information
  - Detect relationships between people/places/objects
  - Set “ground truth” for parsing texts
  - Train automatic IE models
- **Identify proper nouns**
  - strings in text
- **Disambiguate entities**
  - is “Washington” a place or a person?
  - if place: the state or the city? (or...?)
- **By hand**
  - identify strings in text
- **Programmatically**
  - predictively identify (and resolve) strings in text

# What are Named Entities?

The thirty years' truce which was entered into after the conquest of Euboea lasted fourteen years. In the fifteenth, in the forty-eighth year of the priestess-ship of Chrysis at Argos, in the Ephorate of Aenesias at Sparta, in the last month but two of the Archonship of Pythodorus at Athens, and six months after the battle of Potidaea, just at the beginning of spring, a Theban force a little over three hundred strong, under the command of their Boeotarchs, Pythangelus, son of Phyleides, and Diemporus, son of Onetorides, about the first watch of the night, made an armed entry into Plataea, a town of Boeotia in alliance with Athens. [2] The gates were opened to them by a Plataean called Naucleides, who, with his party, had invited them in, meaning to put to death the citizens of the opposite party, bring over the city to Thebes, and thus obtain power for themselves. [3] This was arranged through Eurymachus, son of Leontiades, a person of great influence at Thebes. For Plataea had always been at variance with Thebes; and the latter, foreseeing that war was at hand, wished to surprise her old enemy in time of peace, before hostilities had actually broken out. Indeed this was how they got in so easily without being observed, as no guard had been posted. [4] After the soldiers had grounded arms in the marketplace, those who had invited them in wished them to set to work at once and go to their enemies' houses. This, however, the Thebans refused to do, but determined to make a conciliatory proclamation, and if possible to come to a friendly understanding with the citizens. Their herald accordingly invited any who wished to resume their old place in the confederacy of their countrymen to ground arms with them, for they thought that in this way the city would readily join them.

# What are Named Entities?

The thirty years' truce which was entered into after the conquest of Euboea lasted fourteen years. In the fifteenth, in the forty-eighth year of the priestess-ship of Chrysis at Argos, in the Ephorate of Aenesias at Sparta, in the last month but two of the Archonship of Pythodorus at Athens, and six months after the battle of Potidaea, just at the beginning of spring, a Theban force a little over three hundred strong, under the command of their Boeotarchs, Pythangelus, son of Phyleides, and Diemporus, son of Onetorides, about the first watch of the night, made an armed entry into Plataea, a town of Boeotia in alliance with Athens. [2] The gates were opened to them by a Plataean called Naucleides, who, with his party, had invited them in, meaning to put to death the citizens of the opposite party, bring over the city to Thebes, and thus obtain power for themselves. [3] This was arranged through Eurymachus, son of Leontiades, a person of great influence at Thebes. For Plataea had always been at variance with Thebes; and the latter, foreseeing that war was at hand, wished to surprise her old enemy in time of peace, before hostilities had actually broken out. Indeed this was how they got in so easily without being observed, as no guard had been posted. [4] After the soldiers had grounded arms in the marketplace, those who had invited them in wished them to set to work at once and go to their enemies' houses. This, however, the Thebans refused to do, but determined to make a conciliatory proclamation, and if possible to come to a friendly understanding with the citizens. Their herald accordingly invited any who wished to resume their old place in the confederacy of their countrymen to ground arms with them, for they thought that in this way the city would readily join them.

# What are Named Entities?

The thirty years' truce which was entered into after the conquest of Euboea lasted fourteen years. In the fifteenth, in the forty-eighth year of the priestess-ship of Chrysis at Argos, in the Ephorate of Aenesias at Sparta, in the last month but two of the Archonship of Pythodorus at Athens, and six months after the battle of Potidaea, just at the beginning of spring, a Theban force a little over three hundred strong, under the command of their Boeotarchs, Pythangelus, son of Phyleides, and Diemporus, son of Onetorides, about the first watch of the night, made an armed entry into Plataea, a town of Boeotia in alliance with Athens. [2] The gates were opened to them by a Plataean called Naucleides, who, with his party, had invited them in, meaning to put to death the citizens of the opposite party, bring over the city to Thebes, and thus obtain power for themselves. [3] This was arranged through Eurymachus, son of Leontiades, a person of great influence at Thebes. For Plataea had always been at variance with Thebes; and the latter, foreseeing that war was at hand, wished to surprise her old enemy in time of peace, before hostilities had actually broken out. Indeed this was how they got in so easily without being observed, as no guard had been posted. [4] After the soldiers had grounded arms in the marketplace, those who had invited them in wished them to set to work at once and go to their enemies' houses. This, however, the Thebans refused to do, but determined to make a conciliatory proclamation, and if possible to come to a friendly understanding with the citizens. Their herald accordingly invited any who wished to resume their old place in the confederacy of their countrymen to ground arms with them, for they thought that in this way the city would readily join them.



# What are Named Entities?

The thirty years' truce which was entered into after the conquest of Euboea lasted fourteen years. In the fifteenth, in the forty-eighth year of the priestess-ship of Chrysis at Argos, in the Ephorate of Aenesias at Sparta, in the last month but two of the Archonship of Pythodorus at Athens, and six months after the battle of Potidaea, just at the beginning of spring, a Theban force a little over three hundred strong, under the command of their Boeotarchs, Pythangelus, son of Phyleides, and Diemporus, son of Onetorides, about the first watch of the night, made an armed entry into Plataea, a town of Boeotia in alliance with Athens. [2] The gates were opened to them by a Plataean called Naucleides, who, with his party, had invited them in, meaning to put to death the citizens of the opposite party, bring over the city to Thebes, and thus obtain power for themselves. [3] This was arranged through Eurymachus, son of Leontiades, a person of great influence at Thebes. For Plataea had always been at variance with Thebes; and the latter, foreseeing that war was at hand, wished to surprise her old enemy in time of peace, before hostilities had actually broken out. Indeed this was how they got in so easily without being observed, as no guard had been posted. [4] After the soldiers had grounded arms in the marketplace, those who had invited them in wished them to set to work at once and go to their enemies' houses. This, however, the Thebans refused to do, but determined to make a conciliatory proclamation, and if possible to come to a friendly understanding with the citizens. Their herald accordingly invited any who wished to resume their old place in the confederacy of their countrymen to ground arms with them, for they thought that in this way the city would readily join them.



# What are Named Entities?

The thirty years' truce which was entered into after the conquest of Euboea lasted fourteen years. In the fifteenth, in the forty-eighth year of the priestess-ship of Chrysis at Argos, in the Ephorate of Aenesias at Sparta, in the last month but two of the Archonship of Pythodorus at Athens, and six months after the battle of Potidaea, just at the beginning of spring, a Theban force a little over three hundred strong, under the command of their Boeotarchs, Pythangelus, son of Phyleides, and Diemporus, son of Onetorides, about the first watch of the night, made an armed entry into Plataea, a town of Boeotia in alliance with Athens. [2] The gates were opened to them by a Plataean called Naucleides, who, with his party, had invited them in, meaning to put to death the citizens of the opposite party, bring over the city to Thebes, and thus obtain power for themselves. [3] This was arranged through Eurymachus, son of Leontiades, a person of great influence at Thebes. For Plataea had always been at variance with Thebes; and the latter, foreseeing that war was at hand, wished to surprise her old enemy in time of peace, before hostilities had actually broken out. Indeed this was how they got in so easily without being observed, as no guard had been posted. [4] After the soldiers had grounded arms in the marketplace, those who had invited them in wished them to set to work at once and go to their enemies' houses. This, however, the Thebans refused to do, but determined to make a conciliatory proclamation, and if possible to come to a friendly understanding with the citizens. Their herald accordingly invited any who wished to resume their old place in the confederacy of their countrymen to ground arms with them, for they thought that in this way the city would readily join them.

# This workshop

Annotating texts on Inception: a provided corpus or your own

Focus on ancient and medieval texts

Annotation performed with an ad hoc experimental tagset (feedback is welcome)

Discussion of problems and issues

# Workshop Contacts

Chiara Palladino ([chiara.palladino@furman.edu](mailto:chiara.palladino@furman.edu))

Margherita Fantoli ([margherita.fantoli@kuleuven.be](mailto:margherita.fantoli@kuleuven.be))

Evelien de Graaf ([evelien.degraaf@kuleuven.be](mailto:evelien.degraaf@kuleuven.be))

Monica Berti ([monica.berti@uni-leipzig.de](mailto:monica.berti@uni-leipzig.de))

Matteo Romanello ([matteo.romanello@unil.ch](mailto:matteo.romanello@unil.ch))

Tariq Yousef ([yousef@sdu.dk](mailto:yousef@sdu.dk))

Marijke Beersmans ([marijke.beersmans@kuleuven.be](mailto:marijke.beersmans@kuleuven.be))

Tom Gheldof ([tom.gheldof@kuleuven.be](mailto:tom.gheldof@kuleuven.be))

Laura Soffiantini ([laura.soffiantini@kuleuven.be](mailto:laura.soffiantini@kuleuven.be))

Eleonora Litta ([eleonoramaria.litta@unicatt.it](mailto:eleonoramaria.litta@unicatt.it))