

# Network Analysis and Archaeological Objects:

First Approaches to the Medieval Monetary Corpus  
from the Former Low Countries



Brussels, KBR (online)  
5 November 2021



# Numismatic sources : text, iconography and archaeological context



«Denarius » and « gros » from Flanders and Hainault (Brussels, Royal Library)

# Monetary production in the Middle Ages



# Isolated finds and treasures



Fifteenth-century treasure discovered in Dijon (Bourgogne) in 2019.

10 gold coins, 24 silver coins. From Brabant, Milano, Ferrara, etc.

# A Belgian Inventory: Aimé HAECK, *Middeleeuwse munten van de vroegere Belgische vorstendommen en heerlijkheden in vondsten 751-1433*

AIMÉ HAECK

MIDDELEEUWSE MUNTEN  
VAN DE VROEGERE BELGISCHE  
VORSTENDOMMEN EN HEERLIJKHEDEN  
IN VONDSTEN  
(751 - 1433)



LES MONNAIES MIEVIALES  
DES ANCIENNES  
PRINCIPAUTES ET SEIGNEURIES BELGES  
DANS LES TROUVAILLES  
(751 - 1433)

-; *Schatvondsten* : Gannarve 1 1924|>1120 (1 Thuin?)

REGINARDUS - RÉGINARD (1025-1037) - KOENRAAD II, KONING - CONRAD II, ROI (1024-1027)

Denarius/Maastricht (Dgs.94; de Ch.6; Dbg.253; Fr\_M.20) : *Schatvondsten* : Mgowo 1893|1037 (1); Berlin 1 1856|1060 (1); Österby, Ekeby 1886|>1079 (3); Berlin II 1856|1090-1100 (1); Kose 1982|>1121 (1)

Denarius/Maastricht (Dgs.94; Dbg.1369; Fr\_M.sub20; Vh.F67) : *Schatvondsten* : Lübeck 1875|1040 (1); Kose 1982|>1121 (1)

Denarius/Maastricht (Dgs.95; de Ch.9; Dbg.253; Fr\_M.25; Vh.G662)<sup>1681</sup> : *Schatvondsten* : Norledet 1910|>1035 (1 of 2); Lilla Klintegårda 1989|1036 (1); Lübeck 1875|1040 (1); Lysseäck 1886|>1042 (3); Gandarve 1952|>1047 (1); Plonsk 1869|1065 (1); Maida 1974|>1066 (1); Lodenoje Pole III 1949|1073 (1); Österby, Ekeby 1886|>1079 (15); Stora Sojdeby 1 1910|>1089 (2); Aru 1886|>1090 (1); Store Frigård 1928|>1106 (1)

Denarius/Maastricht (Dgs.96; Dbg.1388; Fr\_M.26; Vh.F69 (Maastricht))<sup>1691</sup> : *Schatvondsten* : Stige 1904|>1021 (1); Ellilä 1950|1030 (1); Lilla Klintegårda 1989|>1036 (2+2?); Frigsarve 1913|>1039 (1); Lübeck 1875|1040 (1); Stora Bjärs III 1949|>1055 (2); Sanda 1977|>1057 (2); Ulesie 1880|1065 (1); Johannishus 1866|>1120 (2); Kose 1982|>1121 (1)

Denarius/Huy (Dgs.98; de Ch.19; Dbg.231; Fr\_H.15; Vh.G658) : *Schatvondsten* : Stale II 1934|>1036 (3); Swirjstroj 1 1933|1040 (1); Lysseäck 1886|>1042 (1); Lilla Klintegårda II 1876|>1050 (1); Dobrzyń 1910|1060 (1); Selse of Tørring 1822|1060 (1); Österby, Ekeby 1886|>1079 (1); Vichmjazsker 1934|1079 (1); Olustvere 1 1978|>1080 (1); Sandegårda 1985|<1083 (1); Aru 1886|>1090 (1); Archangelsk 1989|1112 (1); Kose 1982|>1121 (1)

Denarius/Visé? (Dgs.99; Potin 13; Vichmjazsker 1467) : *Schatvondsten* : Vichmjazsker 1934|1079 (1)

Denarius/Thuin (Dgs.100; Dbg.263; Vh.F68) : *Schatvondsten* : Kolczyn Maly -|1030 (1); Ulesie 1880|1065 (1)

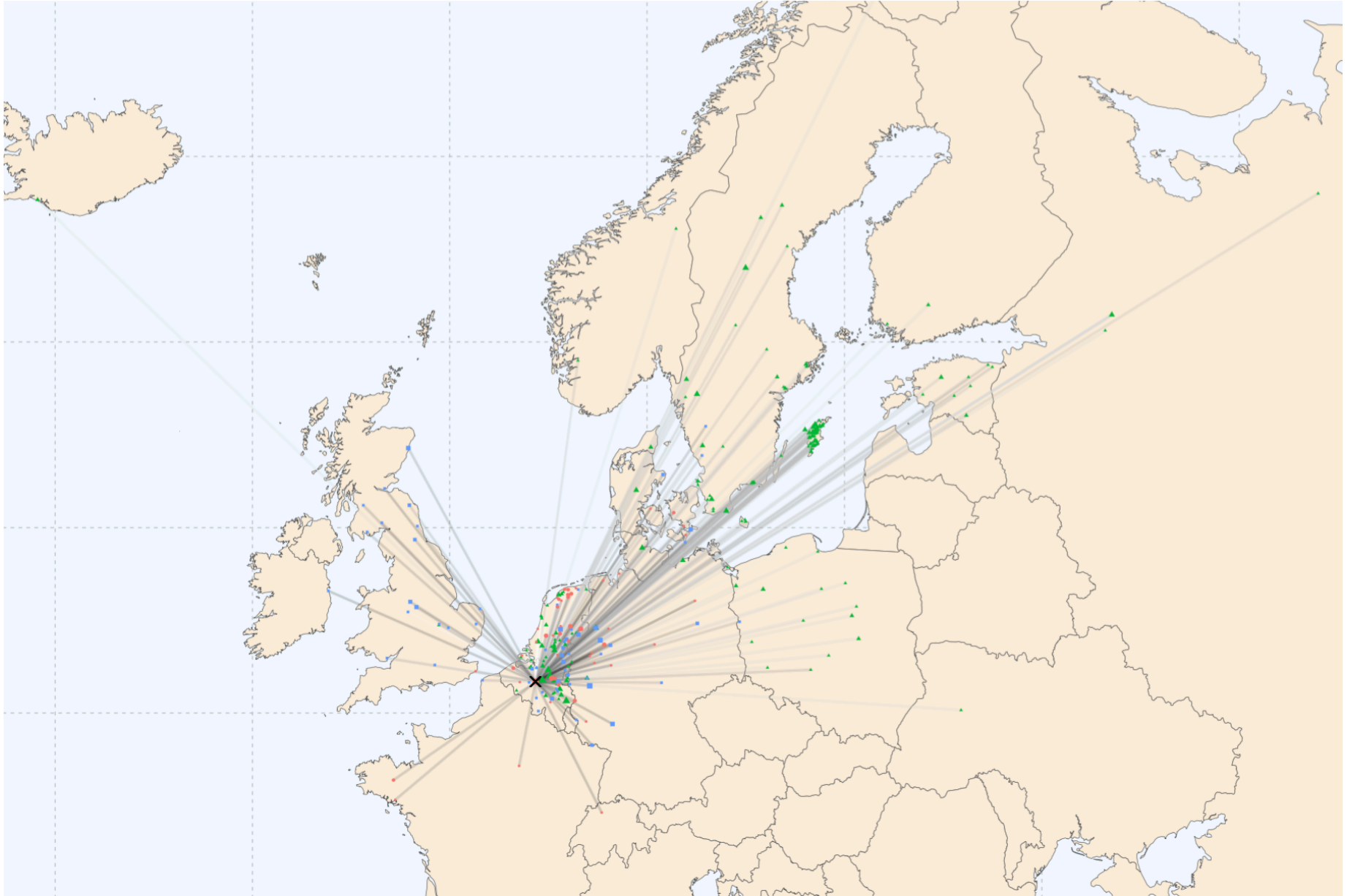
REGINARDUS - RÉGINARD (1025-1037) - KOENRAAD II, KEIZER - CONRAD II, ROI (1027-1039)

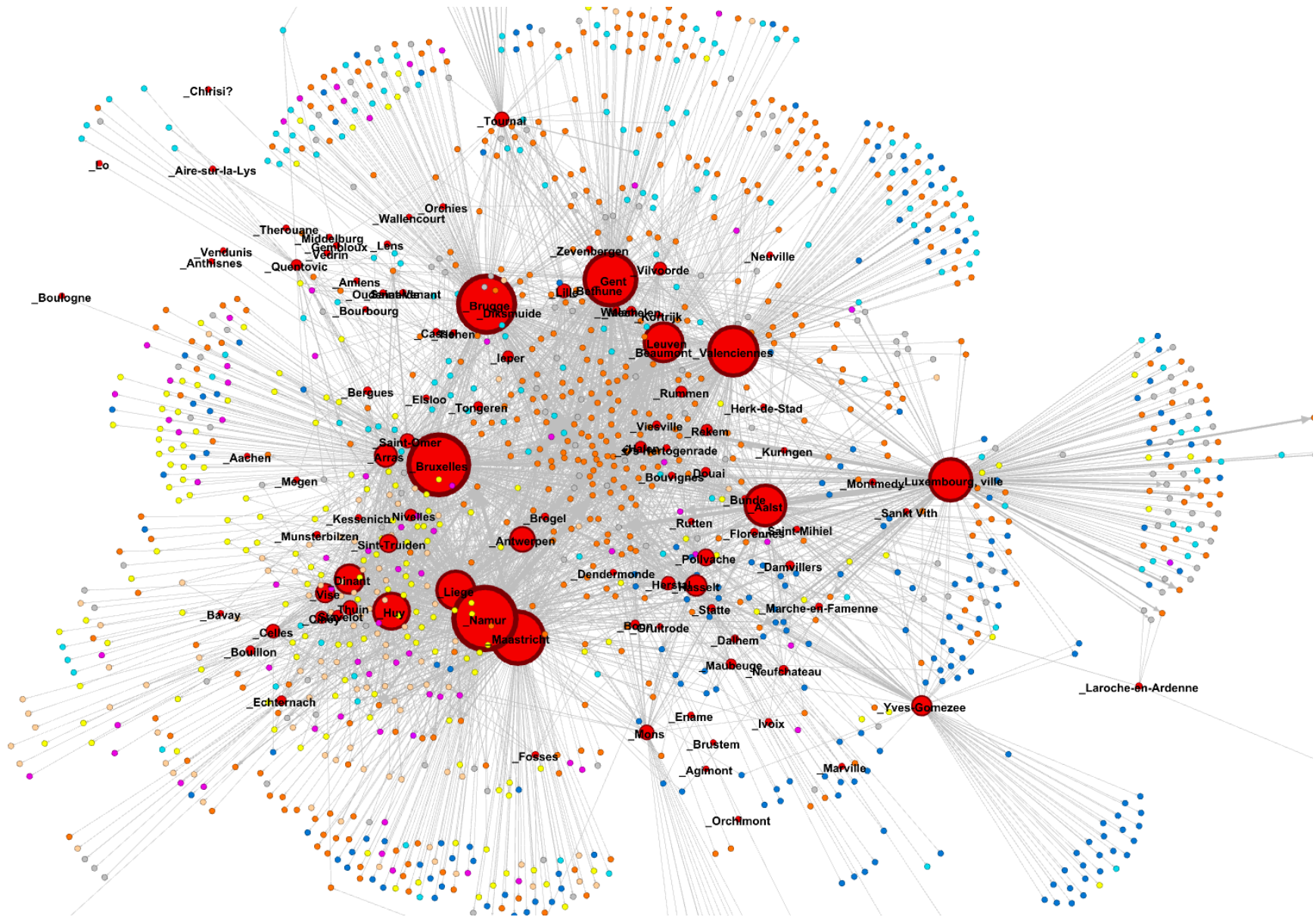
# Data: links and nodes

|    | A             | B                  | C                       | D               | E           | F               | G             | H                  | I                  | J               |
|----|---------------|--------------------|-------------------------|-----------------|-------------|-----------------|---------------|--------------------|--------------------|-----------------|
| 1  | <b>source</b> | <b>target</b>      | <b>seigneur</b>         | <b>datation</b> | <b>type</b> | <b>vondsten</b> | <b>nombre</b> | <b>datationInf</b> | <b>datationSup</b> | <b>distance</b> |
| 2  | _Herstal      | Wijk-bij-Duurstede | Pepin le Bref (751-768) | #N/A            | Denarius    | Accumulatievond | 1             | #N/A               | #N/A               | 147             |
| 3  | _Herstal      | Bonn               | Pepin le Bref (751-768) | #N/A            | Denarius    | Losse vondsten  | 1             | #N/A               | #N/A               | 104             |
| 4  | _Herstal      | Liege              | Pepin le Bref (751-768) | #N/A            | Denarius    | Losse vondsten  | 1             | #N/A               | #N/A               | 5               |
| 5  | _Leuven       | Imphy              | Pepin le Bref (751-768) | 768-794         | Denarius    | Schatvondsten   | 1             | 768                | 794                | 451             |
| 6  | _Maastricht   | Imphy              | Pepin le Bref (751-768) | 768-794         | Denarius    | Schatvondsten   | 1             | 768                | 794                | 470             |
| 7  | _Maastricht   | Imphy              | Pepin le Bref (751-768) | 768-794         | Denarius    | Schatvondsten   | 2             | 768                | 794                | 470             |
| 8  | _Quentovic    | Imphy              | Pepin le Bref (751-768) | 768-794         | Denarius    | Schatvondsten   | 3             | 768                | 794                | 418             |
| 9  | _Quentovic    | Ilanz              | Pepin le Bref (751-768) | 790-800         | Denarius    | Schatvondsten   | 1             | 790                | 800                | 698             |
| 10 | _Valenciennes | Echternach         | Pepin le Bref (751-768) | #N/A            | Denarius    | Losse vondsten  | 1             | #N/A               | #N/A               | 216             |
| 11 | _Dinant       | Gelderland         | Charlemagne (768-794)   | 771-790         | Denarius    | Schatvondsten   | 1             | 771                | 790                | 204             |
| 12 | _Dinant       | Bel-Air            | Charlemagne (768-794)   | 780-790         | Denarius    | Schatvondsten   | 1             | 780                | 790                | 377             |
| 13 | _Dinant       | Krinkberg          | Charlemagne (768-794)   | 781-800         | Denarius    | Schatvondsten   | 1             | 781                | 800                | 523             |

| A            | B        | C        | D    | E       |
|--------------|----------|----------|------|---------|
| Id           | lat      | lng      | pays | type    |
| _ 's Hertoge | 50,86845 | 6,095051 | NL   | atelier |
| _Aachen      | 50,77664 | 6,08342  | DE   | atelier |
| _Aalst       | 50,93604 | 4,0355   | BE   | atelier |
| _Agimont     | 50,16421 | 4,79428  | BE   | atelier |
| _Aire-sur-la | 50,63959 | 2,40006  | FR   | atelier |
| _Amiens      | 49,9     | 2,3      | FR   | atelier |
| _Anthisnes   | 50,48166 | 5,522526 | BE   | atelier |
| _Antwerpe    | 51,22047 | 4,40026  | BE   | atelier |
| _Arlon       | 49,68333 | 5,81667  | BE   | atelier |
| _Arras       | 50,29105 | 2,777221 | FR   | atelier |

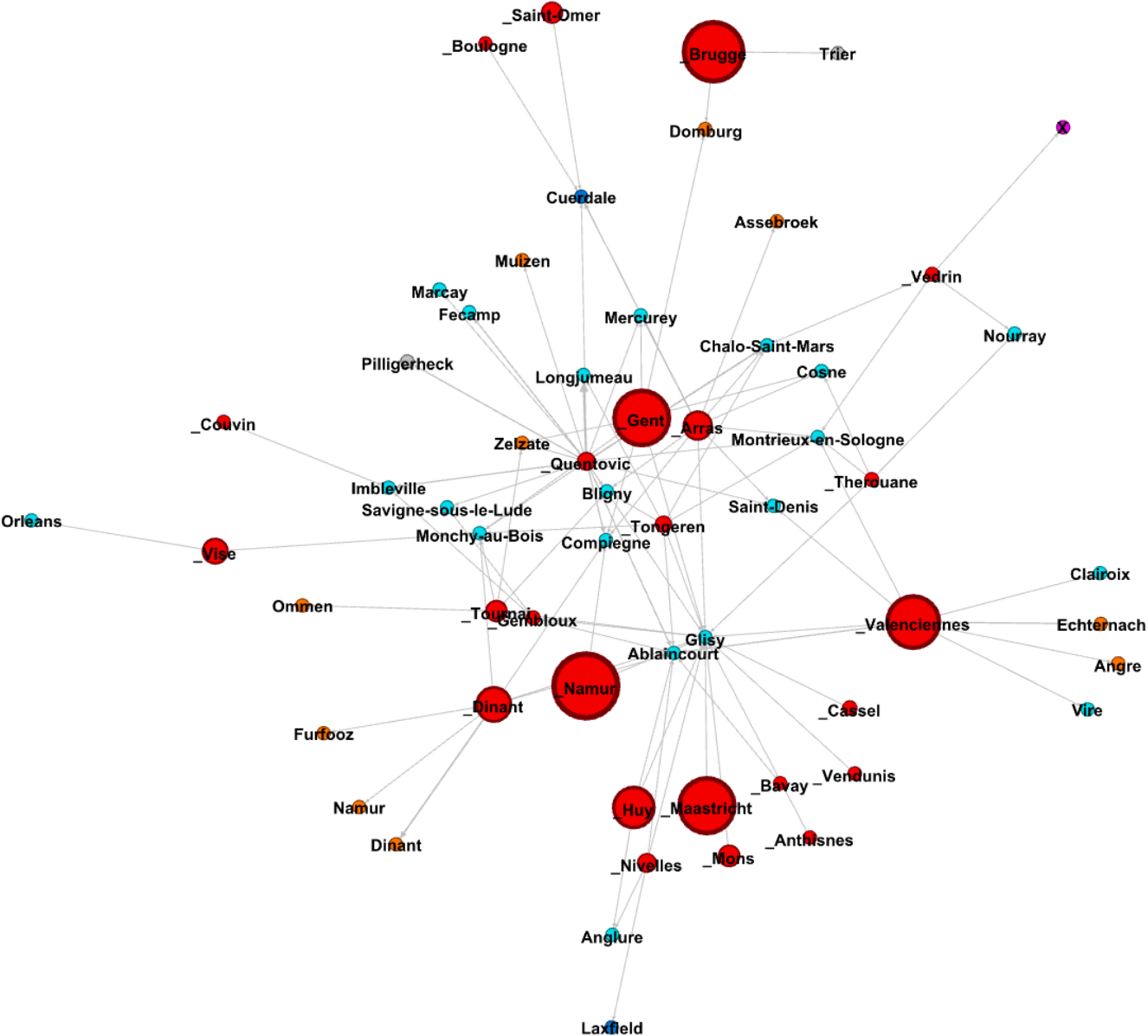
# Mints and places of discovery



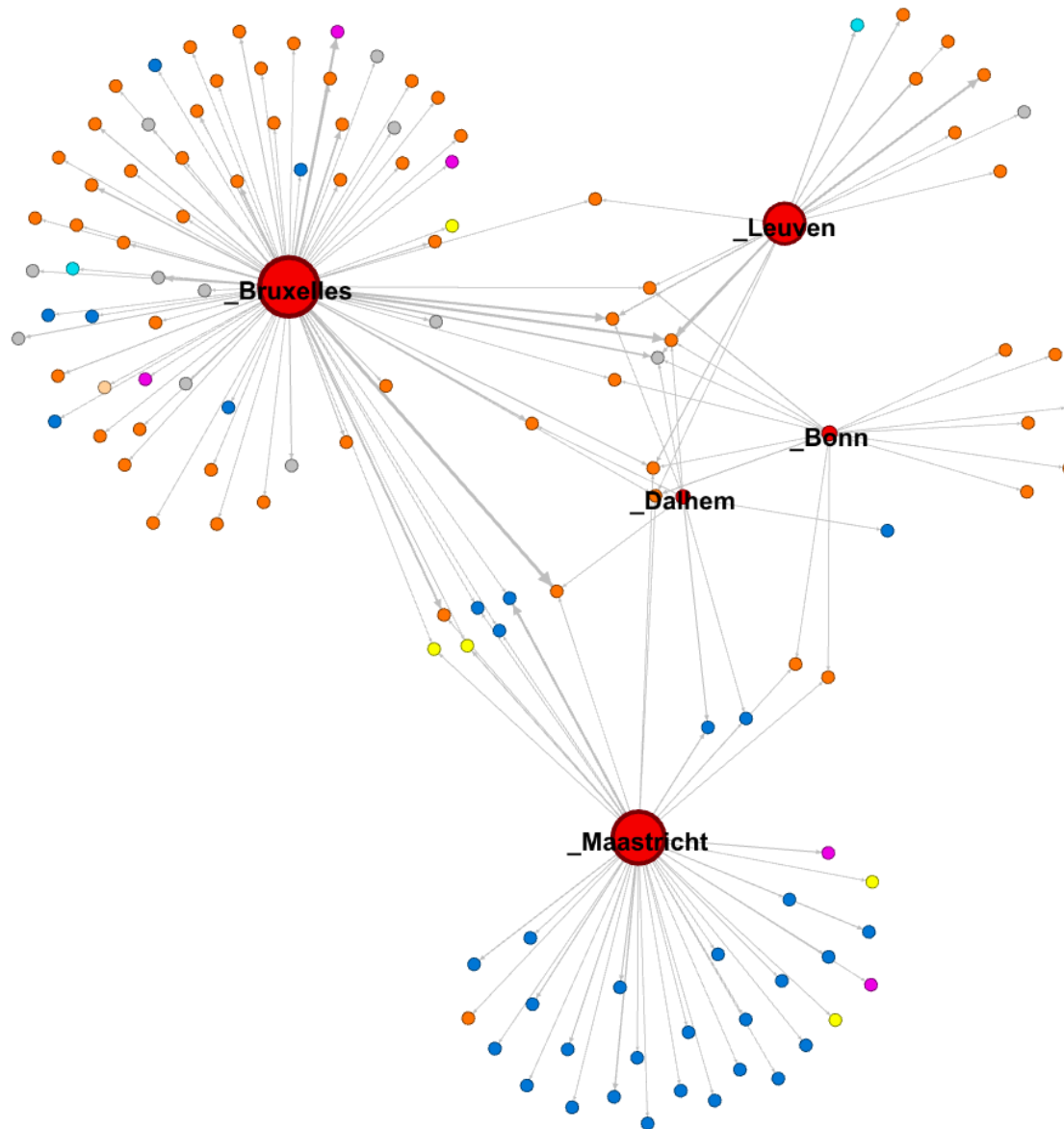




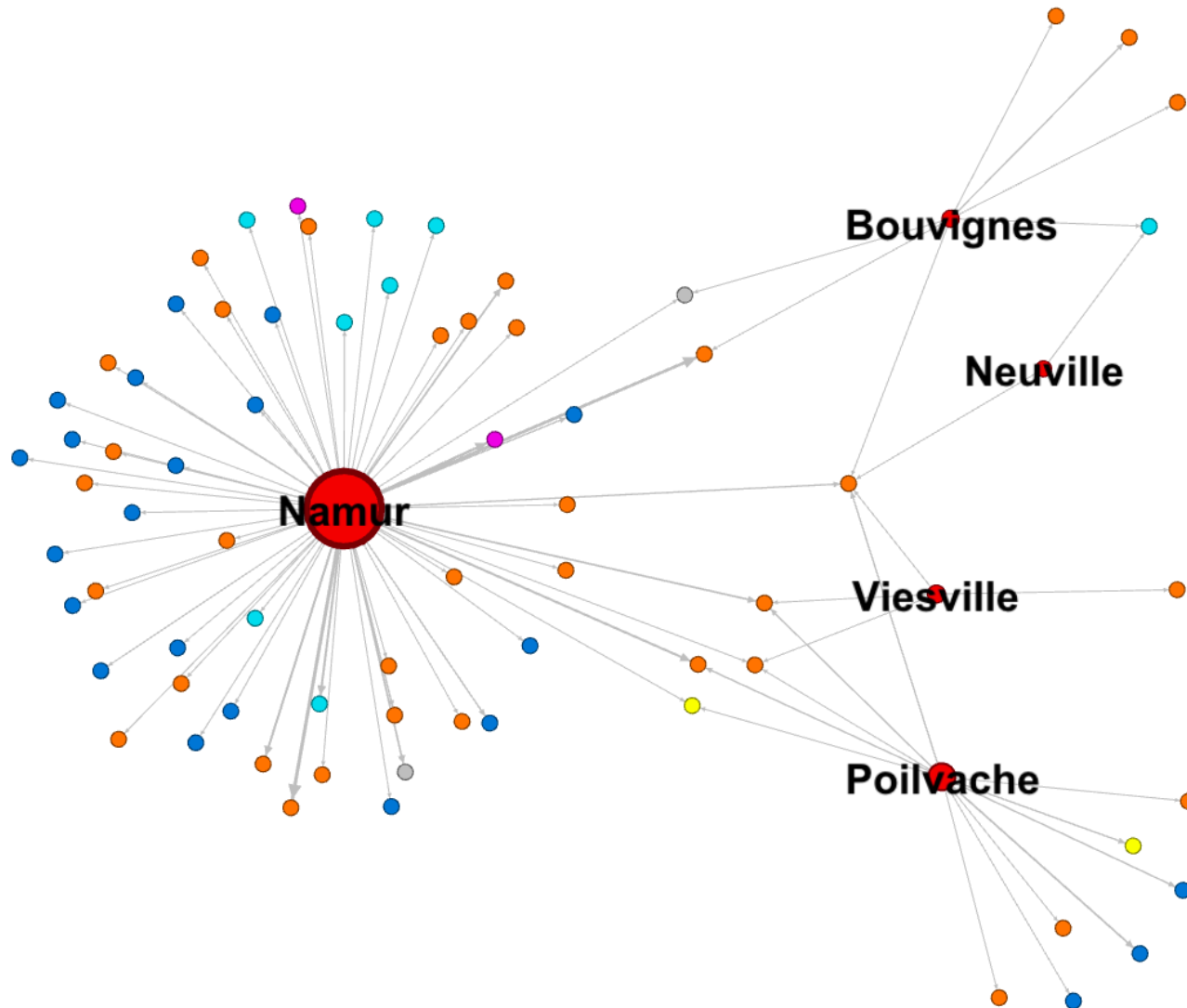
# Charles the Bald (843-877)

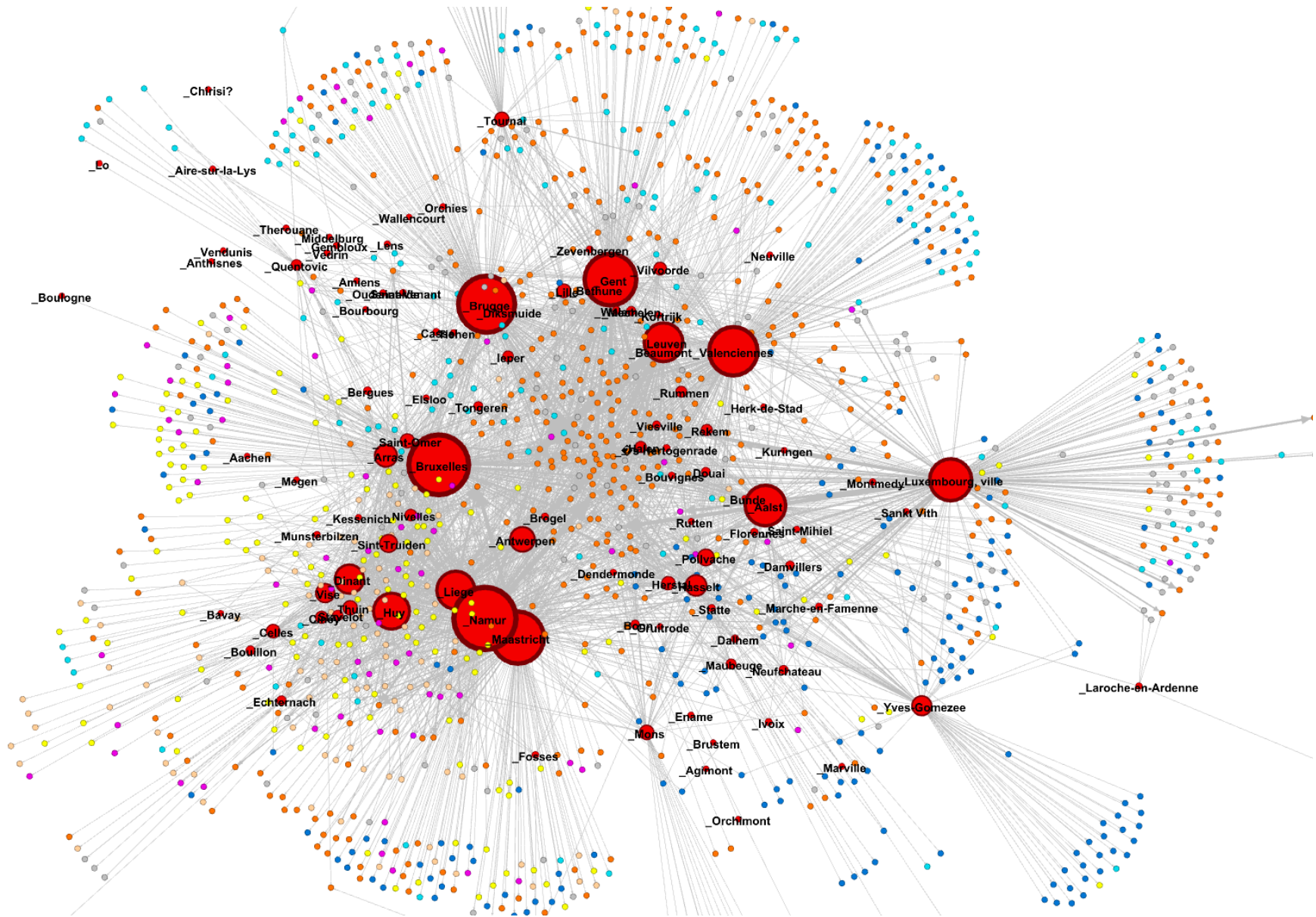


# John I of Brabant (1267-1294)

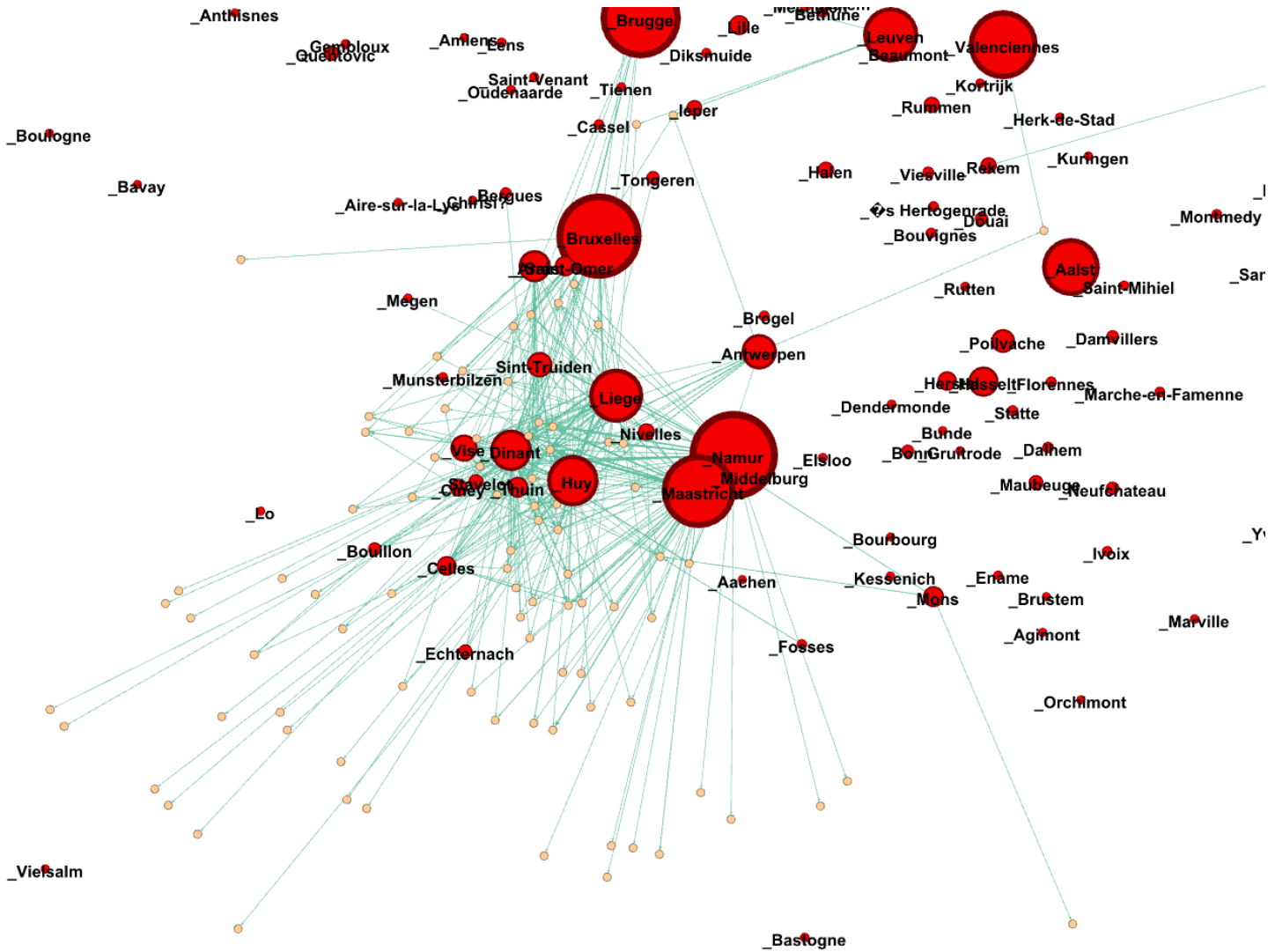


# William I of Namur (1337-1391)

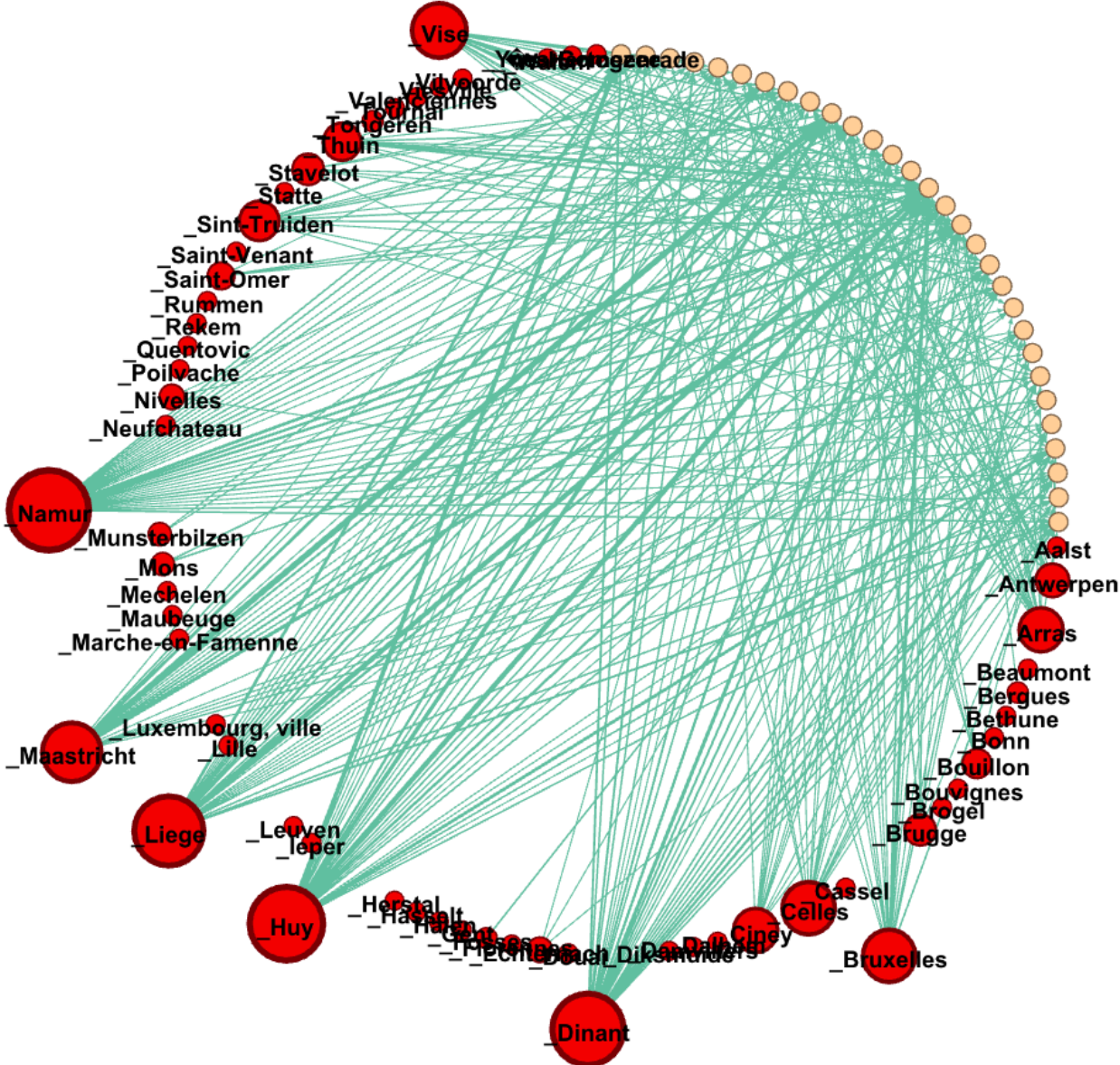




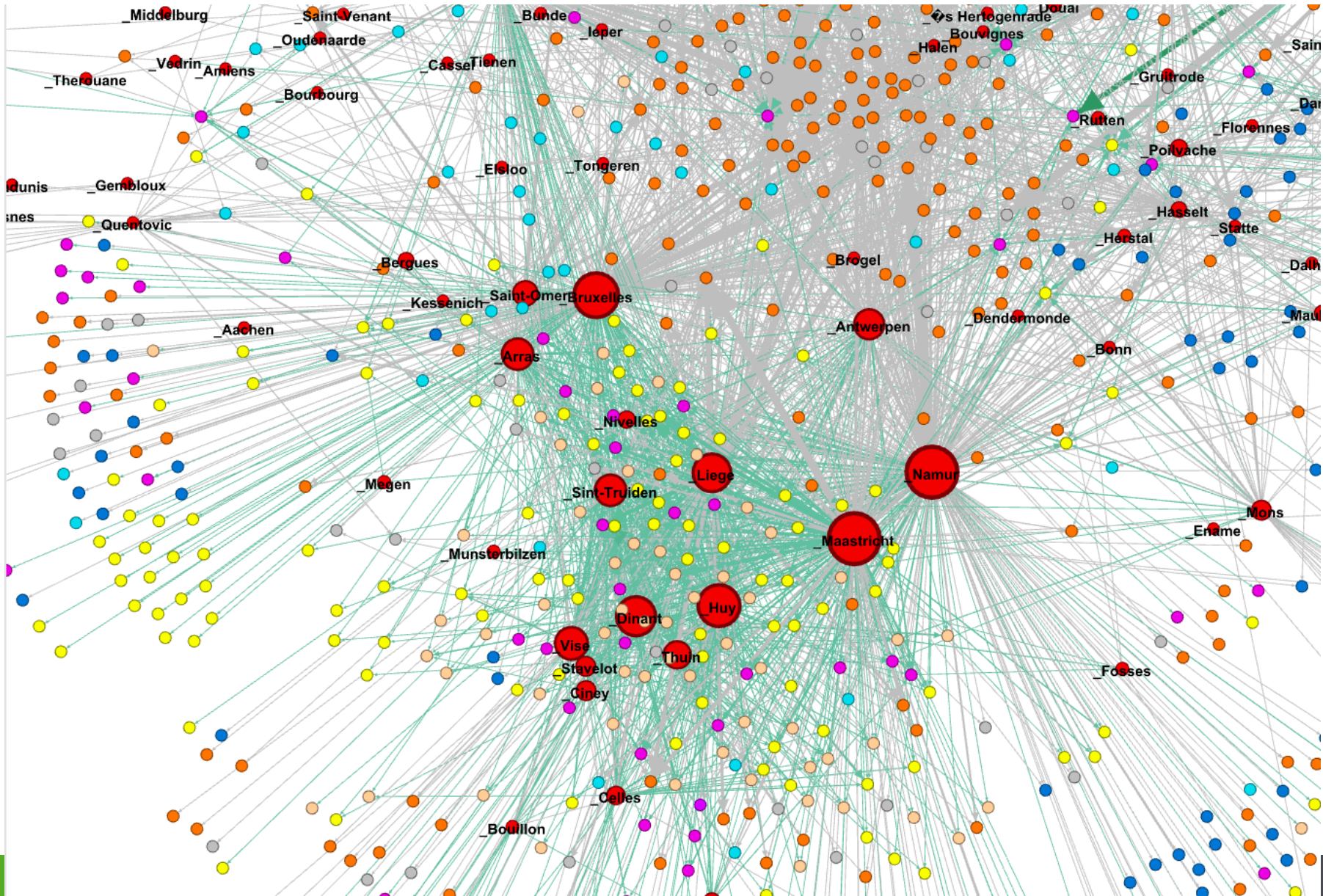
# Eastern Europe



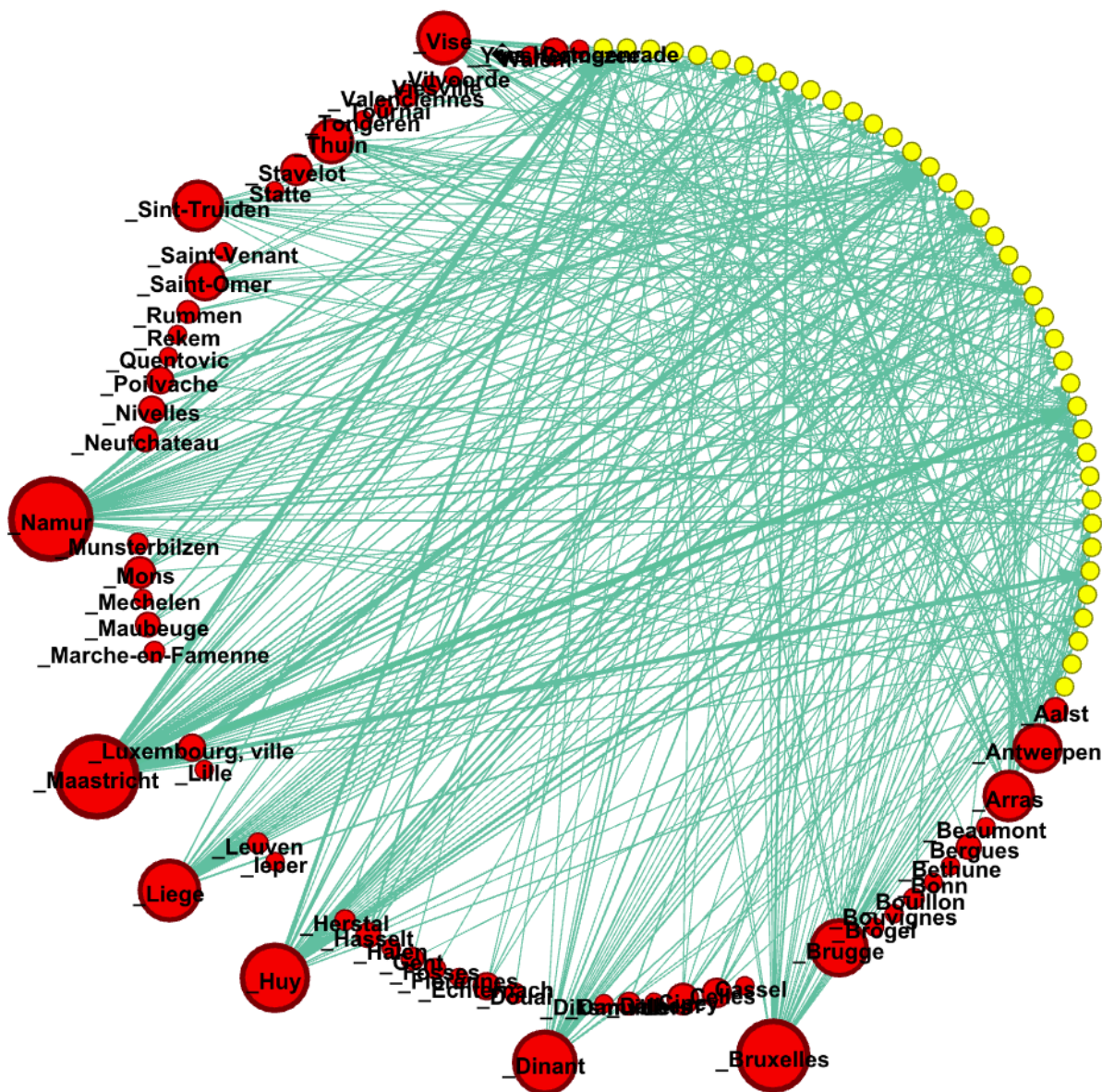
# Eastern Europe



# Scandinavia

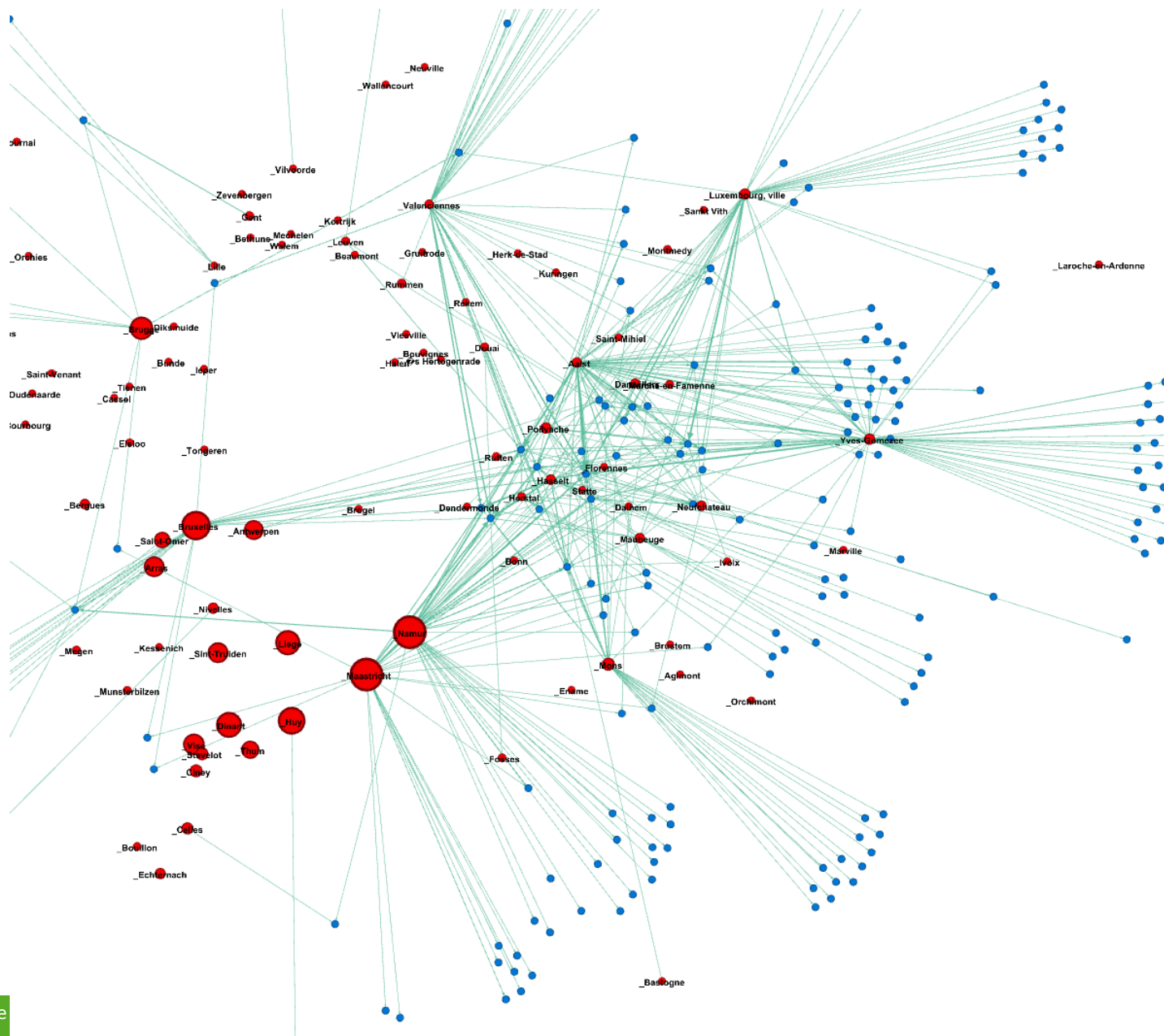


# Scandinavia

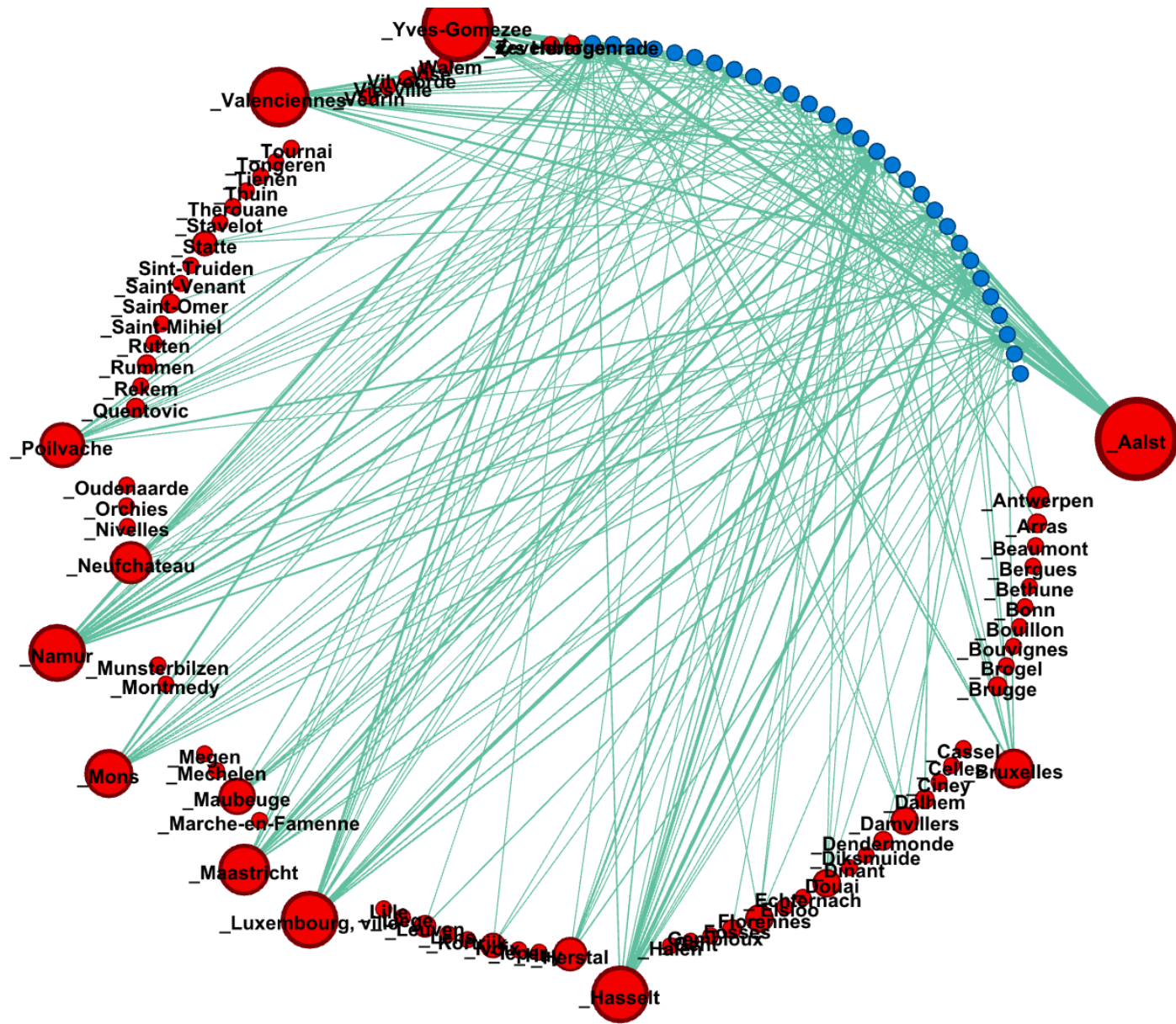




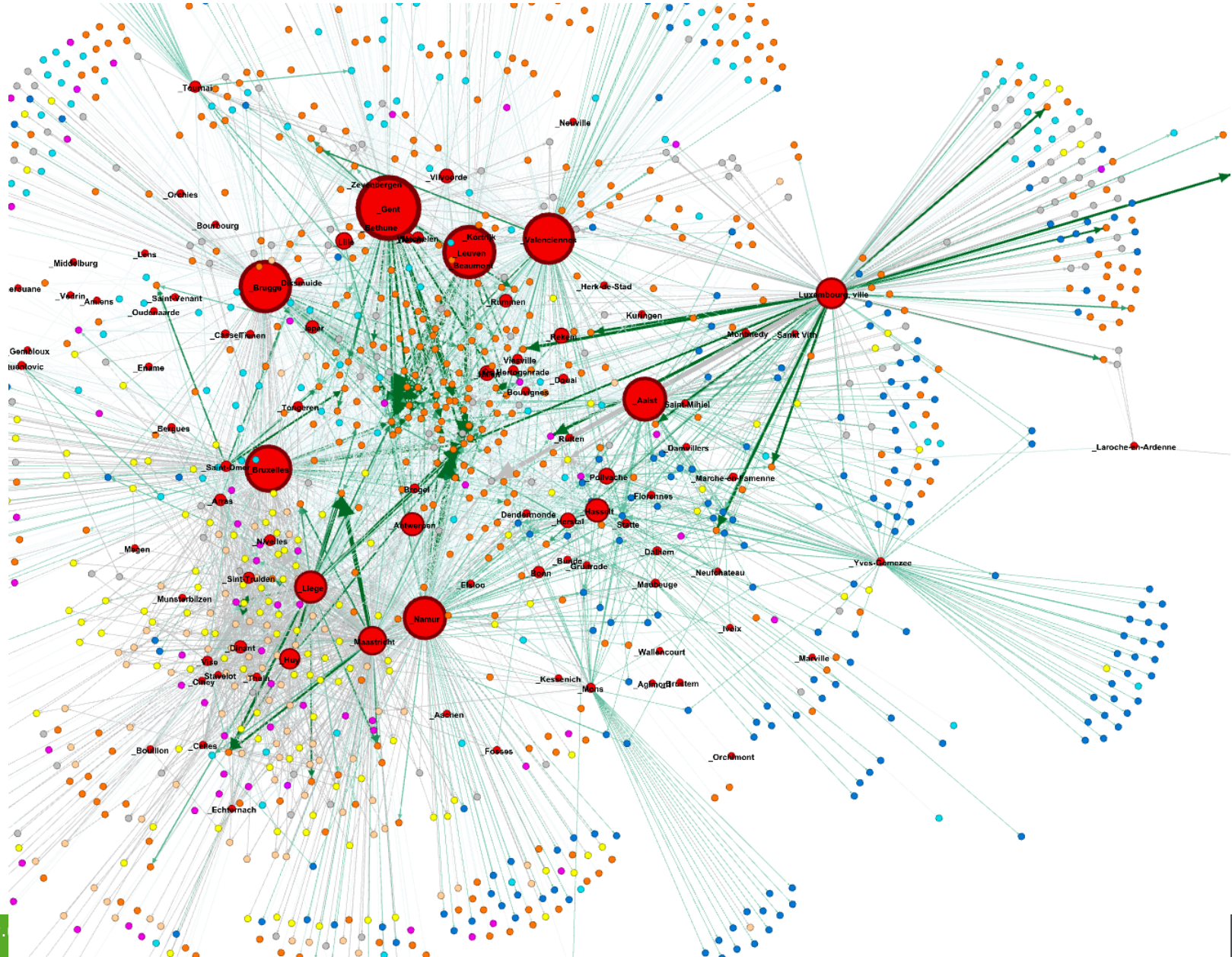
# Great Britain



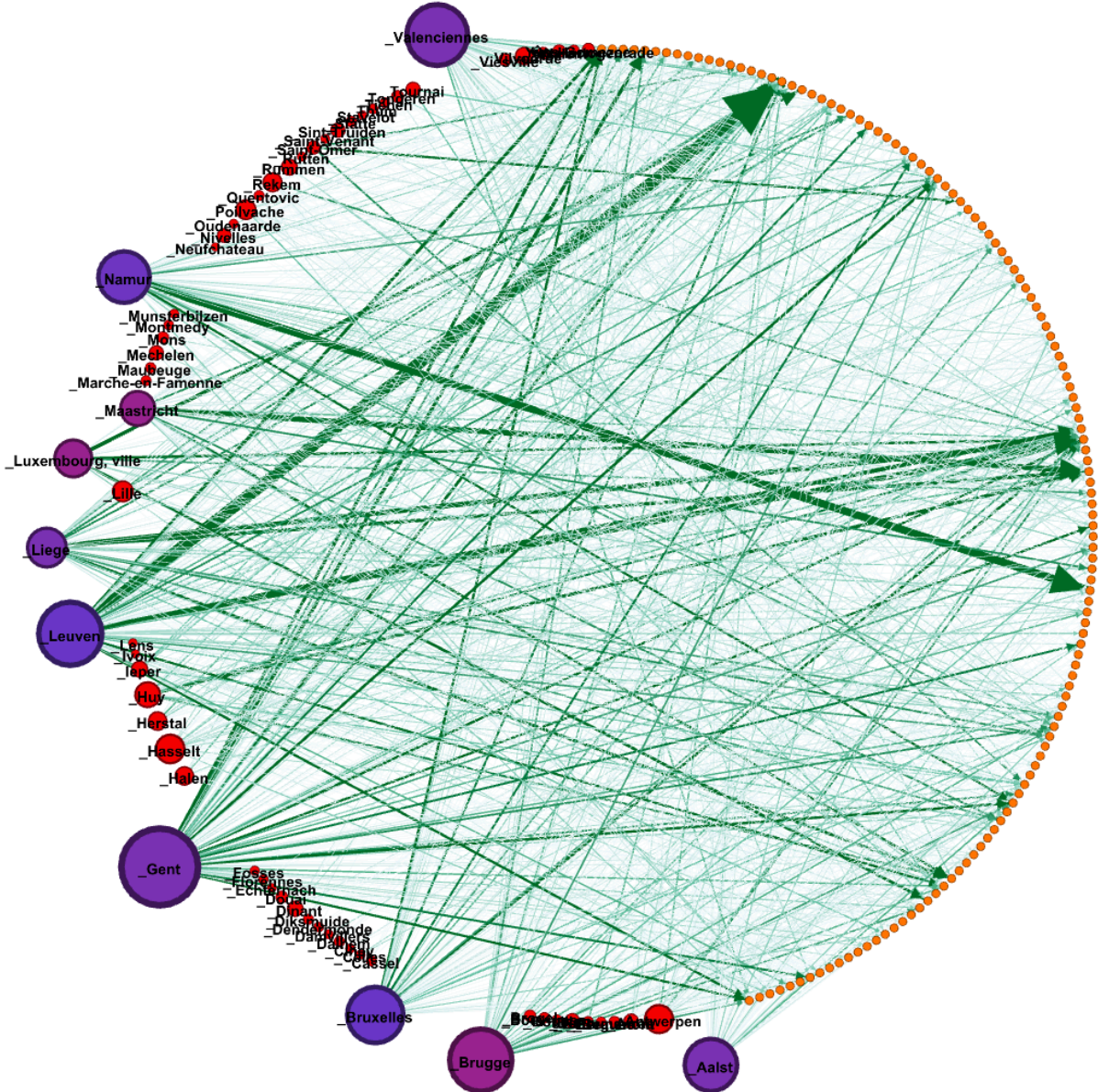
# Great Britain



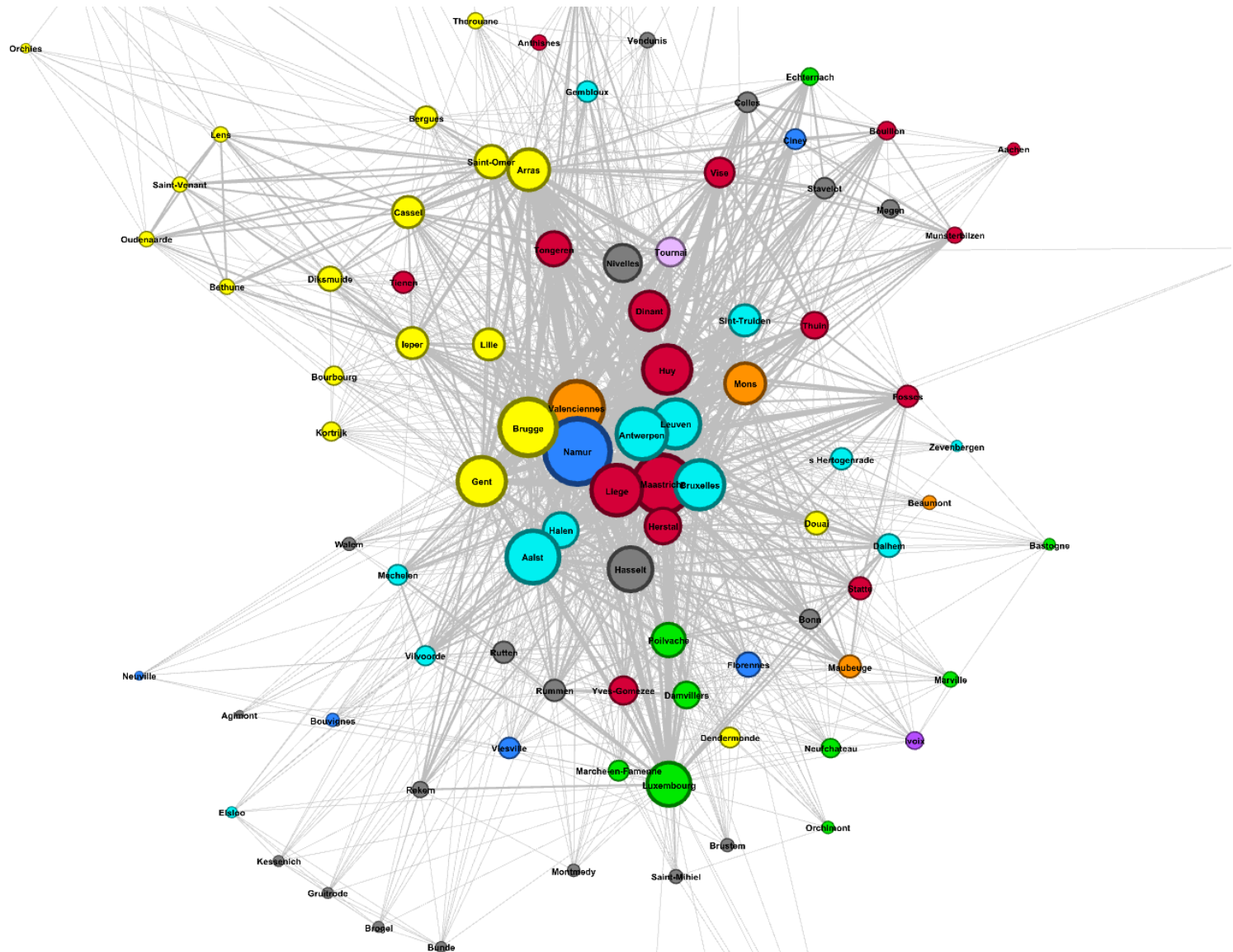
# Former Low Countries



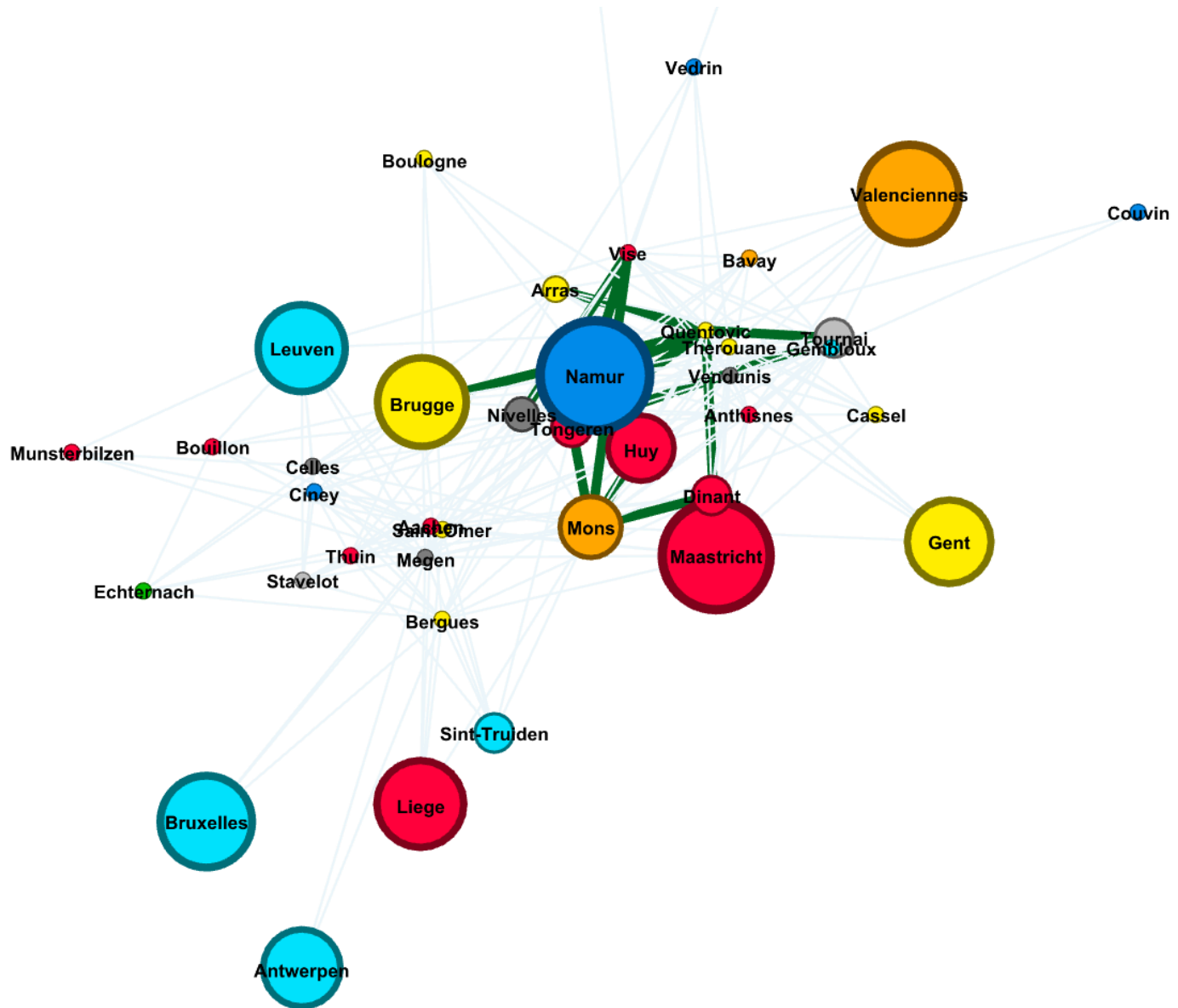
# Former Low Countries



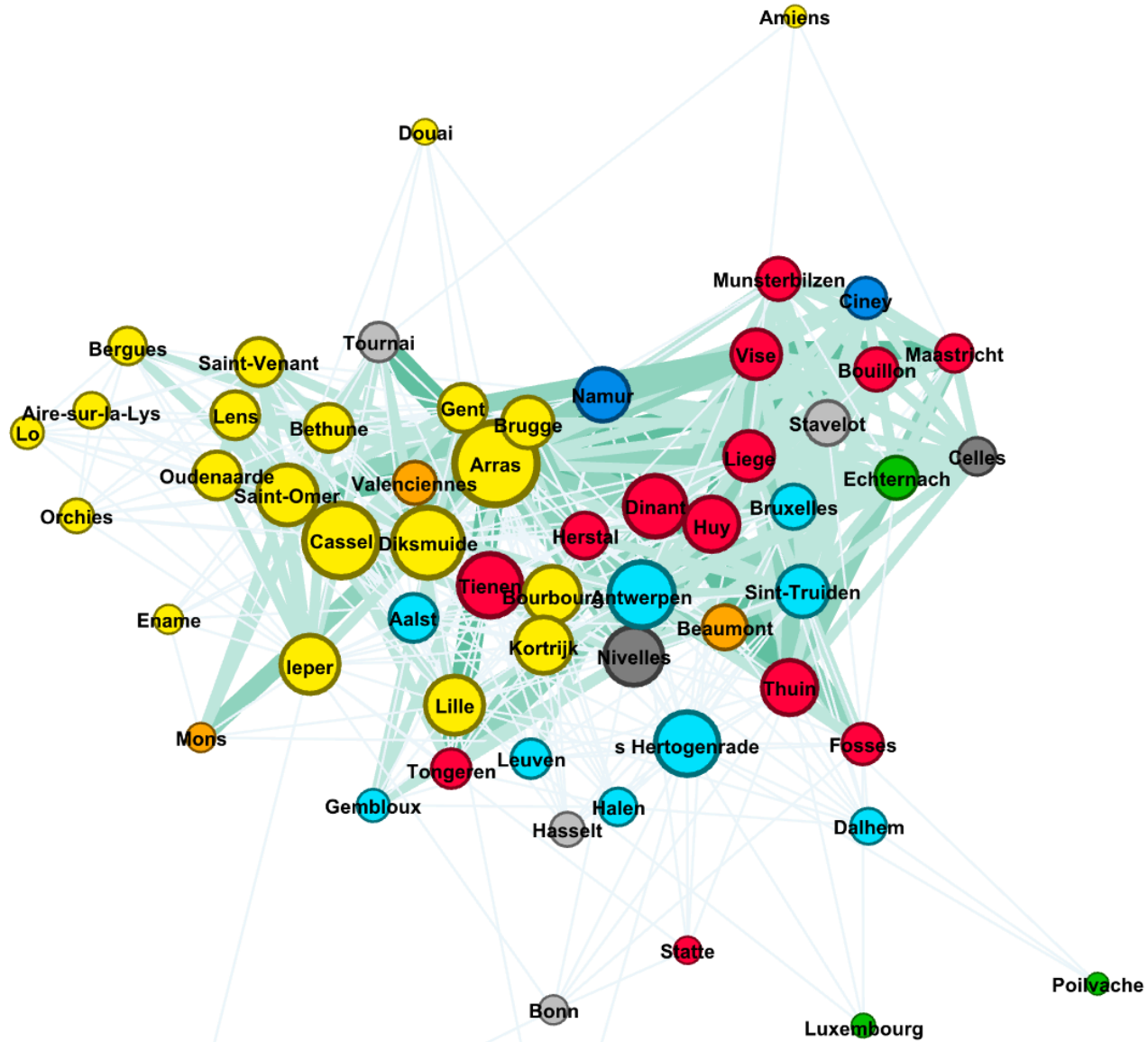
# Workshops and currency circulation: how did currencies circulate?



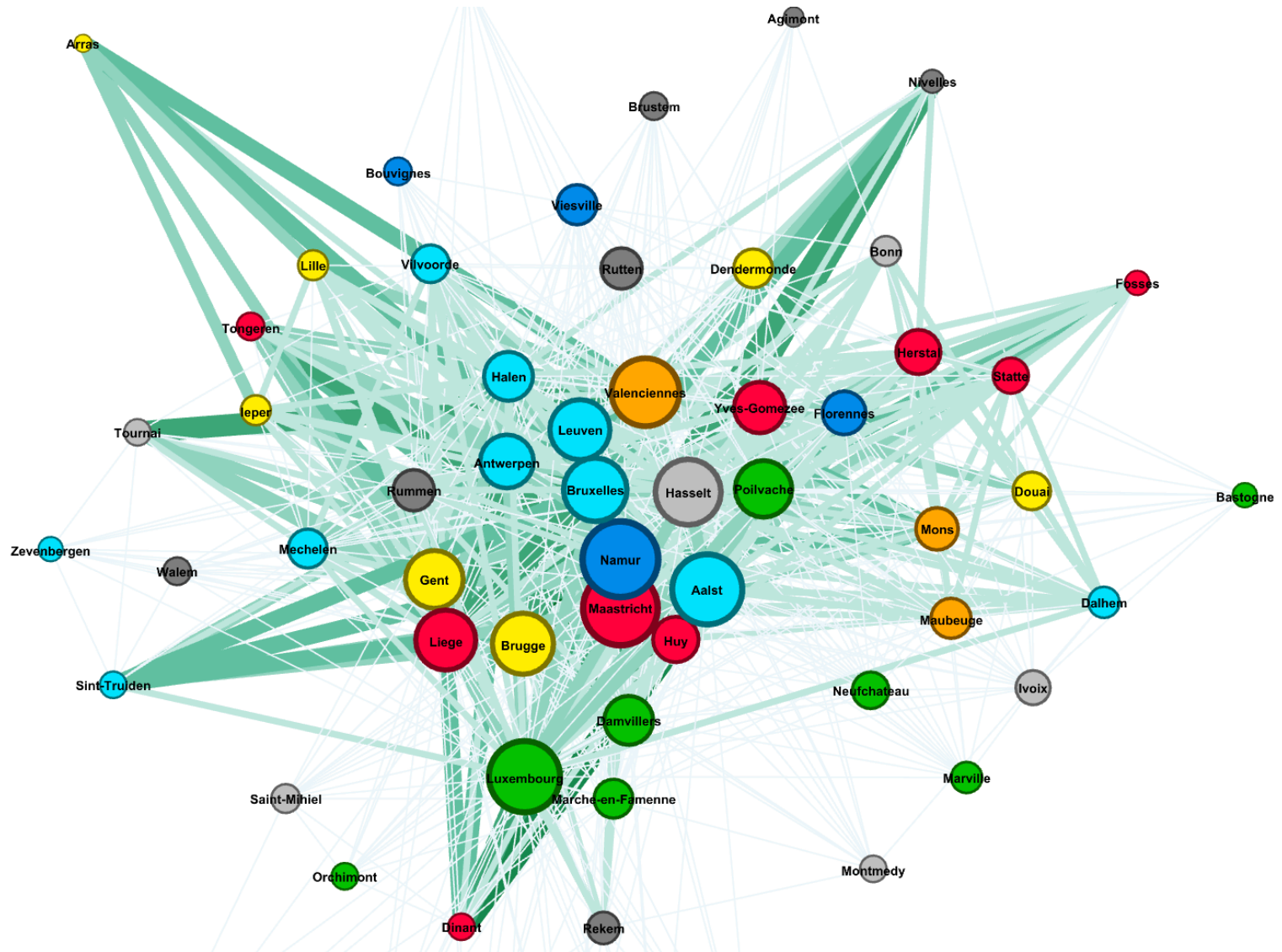
# Early Middle Ages



# High Middle Ages



# Late Middle Ages





# Using "density" (by periods)

| Density          |       |
|------------------|-------|
| Ealy Middle Ages | 0,035 |
| High Middle Ages | 0,231 |
| Late Middle Ages | 0,121 |

# Using “density”: evolution of the density on each principality

| Density      |          |              |              |
|--------------|----------|--------------|--------------|
| PRINCIPALITY | EARLY MA | HIGH MA      | LATE MA      |
| Flanders     | 0,046    | <b>0,354</b> | <b>0,04</b>  |
| Brabant      | —        | 0,162        | 0,295        |
| Namur        | —        | 0,028        | 0,222        |
| Hainault     | —        | 0,048        | 0,143        |
| Luxembourg   | —        | —            | 0,145        |
| Liège        | 0,11     | <b>0,279</b> | <b>0,162</b> |

# Density: density of principalities “in pairs”

## The case of Flanders (13th-14th centuries)

Flanders – Luxembourg

0,151

Flanders – Liège

0,189

Flanders – Brabant

0,192

Flanders – Hainaut

0,206

# The case of Huy

