

Analyzing geospatial networks under the Ancien Régime and the early 19th century: marriage, godparenthood and economic relationships in Corsier-sur-Vevey (Switzerland)

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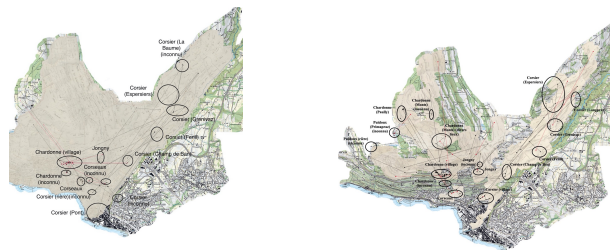
1. Data and methods

- Parish of Corsier, with four villages (Corsier, Corseaux, Chardonne and Jongny)
- 1776 and 1830's cadastral maps aligned on a today's map for marriages and godparenthood
- Genealogical database (more than 25'000 individuals) including births/baptisms and marriages between 1680 and 1840, burials/deaths from 1728 to 1840
- Economic transactions in a notarial register from January 1797 to June 1799 for economic relationships
- 1798 census : nominal, allows to identify dwelling places of tenants and servants. Used for notarial deeds
- Geographical coordinates (latitude and longitude)
- Use of the Gephi plug-in *GeoLayout* to make spatial networks

2. Historical questions

- Is the spatial proximity and/or neighborhood important for social relationships?
- Can we observe an evolution between the 18th and the 19th centuries for marriages and godparenthood?
- For economic relationships, does residency play a role?

3. Spatial proximity and marriages (I)



Spatial networks of marriages for 1773-1782 and 1831-1840

3. Spatial proximity and marriages (II)

Between the 18th and the 19th centuries, marriages in the very close proximity are appearing. The marriages within the villages are more common during the 1830's. Use of the visualization to find very close marriages. The example shows the closest marriage in the 19th century. The fiancés live within a 10 meters distance.

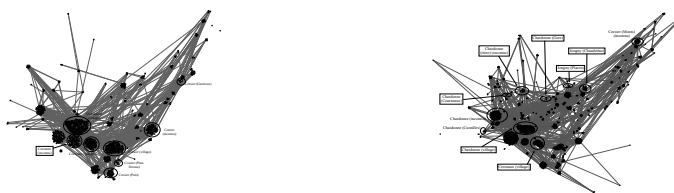


I isolated the marriages with a relative (fourth degree of consanguinity and second of affinity). The exchanges between villages are less common in the 19th century.



Spatial networks of kin marriages for 1773-1782 and 1831-1840

4. Spatial proximity and godparenthood (I)



Godparents' spatial networks for 1773-1782 and 1831-1840.
The size of the nodes (individuals) according to the in-degree (number of godchildren)

In the 18th century, popular godparents are often located in the villages. In the 19th century, they are more often in the areas with scattered habitat.

4. Spatial proximity and godparenthood (II)

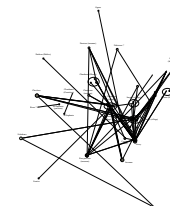


Popular godparents' spatial networks for 1773-1782 and 1831-1840. The size of the nodes according to the in-degree (number of godchildren)

In the 18th century, popularity is strongly correlated with a political position. In the 19th century, popularity is correlated with the presence of baptized children among relatives.

5. Spatial proximity and economic relationships (real-estate)

On the real-estate market, people living outside the parish are more sellers than buyers. The reason can be an emigration, with the will to sell inherited goods.



Real estate's spatial network. Size and color of the nodes (individuals) according to the out-degree (selling).



It is also possible to identify examples of cooperation between neighbors, here for buying an auctioned good.

6. Conclusion

- Historical documents, even in rural areas, can provide important information about the living places and the relationships between neighbors
- The visualization allows to identify close neighbors and the evolution of the importance of spatial proximity
- Using a genealogical and prosopographical database gives important information about the reasons of the centrality of the spatial proximity

7. Question

- Is there another way of representing the spatiality in a network in order to analyze the networks in a more formal way?