A final selection of 323 personalities, who are writers/poets/dramatists, translators, literary critics, publishers, printers, librarians and literary scientists, who co-shaped the Slovenian literary space between the years 1780 and 1940, were relevant for analysis with the help of the geographic information system (GIS). For the main object of the research, we chose spatial data from their biographies; from places of birth, education and work, to places of publishing.

I. METHODOLOGY

1. The selection of personalities

One of the first lists for forming a subset of authors, who were meant to be researched in the framework of the project “The space of Slovenian literary culture”, numbered over 900 names. About 500 authors fit into the research period and actively co-shaped the Slovenian literary space between the years 1780 and 1940. In the beginning we chose 330 authors who could represent between 60 and 70% of Slovenian authors from the Age of Enlightenment to the beginning of the Second World War on the Slovenian territory. (The estimation was given by project collaborator, Matija Ogrin.) The final number of chosen personalities is 323.

Since, in the project, the concept of literary culture in a wider sense was used, the selection included not only authors (poets, writers, dramatists) but also more visible literary mediators (publishers, printers, booksellers ...) and critics, as well as some other personalities who influenced literary life while primarily working in other fields (for example politics, media, religion or other forms of art). The central criterion for the selection was the estimation of an individual’s importance for literary culture, besides that the selection tried to consider the criteria of regional, genre and gender diversity. As the work of a project group, the selection is to some extent subjective, but it undoubtedly includes all the canonical authors of Slovenian literature in the selected period. The selection also includes authors who created their main opus after the year 1940, but have visibly influenced literary developments before that time.

See 323_osebnostis_seznam.

2. The classification of roles the personalities have in literary culture and the structure of the data about them

The roles in which the described personalities appear, are:

- poet, narrator, dramatist,
- author of semi-literary genres,
- juvenile writer,
- critic, translator, editor, publisher, printer, librarian, literary scientist.
With the individual personalities, the following data, which form the structure of the mask for entering the relevant literary-historical data from biographies, were also acquired:

1. main activity,
2. side activity,
3. place of birth,
4. place of death,
5. burial place,
6. gender,
7. parents’ or father’s social class,
8. mother’s ethnic origin,
9. father’s ethnic origin,
10. mother tongue,
11. name of secondary school,
12. place of secondary school,
13. name of university,
14. study course or faculty,
15. place of higher/university education,
16. education, occupations,
17. place(s) of performing an occupation,
18. social belonging after finished education,
19. political functions or activities,
20. personal connections in the literary field,
21. personal connections in other fields,
22. languages of published texts,
23. place (and year) of publishing a book debut,
24. place of residence during the book debut,
25. place (and year) of publishing the first literary or semi-literary or meta-literary text in a serial publication or almanac,
26. place of residence at time of publishing the first literary or semi-literary or meta-literary text in a serial publication or almanac,
27. place (and year) of publishing last book,
28. place where the author published most of his books,
29. magazines, where the author published,
30. publishing houses, where the author published,
31. commemoration ceremonies.

The main referential source for gathering biographical data was SBL (Slovenian Biographical Lexicon). Encyclopaedic sources, monographs, selected works and individual articles were also used. All the sources used are clearly evident from the rubric Referential literature in the abovementioned document, 323_personalities_list.

As it turned out, the articles about individual personalities in SBL were informative in various ways. With some it was relatively easy to extract the desired types of data (sometimes the timeline of an author’s work in a certain place, for example, was extremely precisely given), while some articles were more ungenerous with biographical information (sometimes it was impossible to establish approximately when the individual author worked in a certain place, or even where he worked or published etc.).

Due to the stated deficiencies, the review of referential literature demanded a lot of energy and time; especially when the data in different referential literature did not agree. On the one hand it is possible to talk about the partial unreliability of specific biographical sources; on the other hand the designed mask for entering biographical data was perhaps even too precise or ambitious, since it is most unlikely that the biographical article would contain all types of data that form its structure.

3. Data acquisition and processing

In 2011, entry masks for the biographies were made. This was followed by the first phase of making an inventory, where students of the Slovenian department of the Faculty of Arts in Ljubljana took care of the first entries of the biographies, during seminars in the academic year 2011/2012 and under the mentorship of Urška Perenič. A phase of supplementation and verification followed (2012–2013).
II. STATISTICAL ANALYSES

Statistical analysis proceeded in several phases and for chosen types of spatial data from the entry mask, since it was necessary to direct a lot of energy into establishing and verifying an Excel table with the biographies of 323 personalities, while with time it also became evident that it would not be possible to deal with all the data at the same time. It also turned out that individual data from the biographies would have to be dealt with over several stages. The same went for entering them on the map, since it was necessary to establish the coordinates (x,y) for each piece of spatial data.

For the purposes of the pilot research (see Perenič 2013 and 2014) we eliminated the so called spatial literary-historical data from the structure of the entry mask, which can be georeferentiated and are thus:

- place of birth (maternity hospital, mother’s place of residence at the time of birth),
- place of death (actual place of death),
- burial place,
- place of secondary school,
- place of higher/university education,
- place(s) of performing an occupation (by years),
- personal connections in the literary field,
- personal connections in other fields,
- place of residence during the book debut,
- place of residence when publishing the last book,
- magazines, where the author published,
- publishing houses, where the author published,
- commemoration ceremonies (commemoration day, holiday, commemoration march ...).

Personal connections in the literary field and other fields belong to the spatial data, because each personality has a corresponding point in the geographical space, and the connections are actually established according to the person’s placement in the space. With magazines and publishing houses the important information is where they were located or active. With commemoration ceremonies we mention, for example, the areas of literary paths, defined by the coordinates.

The first two examples of thematic maps for the purposes of statistical analysis were made for the places of birth and death, namely the authors received their corresponding points in the area of the ethnically Slovene territory (majority) as well as on a global scale. There are four maps all together (two for places of birth and two for places of death). In the pilot phase (see Perenič 2013) we mapped and analysed 30 biographies, in the next phase another 59 (which were all verified by that time), all together thus 89, which represented approximately 1/3 of all the biographies. Next, thematic maps for places of birth and death were made for all the other authors, i.e. 323 authors.

In the pilot and second phase it was possible to predict the spatial dynamics of the Slovenian literary culture according to the locations of birth and death and in the selected period. The analysis of the maps showed in which settlements, regions, historical provinces most authors appeared and where, looking as a whole, most authors were located at the end of their life paths (that also meant that they were active there for a shorter or longer period).

We can sum up the findings in the following way. According to the birth locations, parts of Carniola or informal provinces of Gorenjska (21) come first, they are followed by Inner
Carniola (13) and Lower Carniola (10). Next is central Slovenia (10), followed by Slovene Littoral with 12 authors, and Styria with 8 authors (Fan(n)y Haus(s)mann was born in Upper Austria). 5 authors in the given subset came from Carinthia. Three authors were born in Bosnia and Herzegovina, Serbia or in Croatia. Five authors, of whom 4 were Roman Catholic or Evangelical priests, got their corresponding points on the map in Prekmurje. The analysis of locations of death in the second phase showed that the map is less saturated compared to the birth map. From the researched subset, 18 authors died abroad (4 in the USA, one in Argentina, one in Australia, one in Austrian Graz, one in Bosnia and Herzegovina, one in Prague, two in Italy, two in Zagreb in Croatia and four in Hungary). One author died in a concentration camp. Since the location of death is not connected to literary activity it is difficult to talk about a literary centre or location. 40 authors died in Ljubljana or in the immediate surroundings, which is almost half of the considered authors. Fewer authors died in Gorenjska (5), Lower Carniola (3), Inner Carniola (4). Similar goes for Styria, Slovene Littoral and Carinthia. (for more information see Perenič 2013).

III. MAPS

The following literary maps of the Slovenian authors’ places of birth and death consider the complete biographical base.

Map of places of birth for the 323 Slovenian authors on the ethnically Slovene territory.
Map of places of birth for the 323 Slovenian authors on a world scale.

Map of places of death for the 323 Slovenian authors on the ethnically Slovene territory.
Map of places of death for the 323 Slovenian authors on a world scale.

The persons on the maps are missing their corresponding points only in cases when it was impossible to determine the locations. With locations of birth and death that wasn’t problematic. More often that happens with other types of spatial data, for example with locations of occupation, since some locations could not be established.

IV. CONCLUSION

The results of the first statistical analyses, which are shown in the form of a diagram, can be understood as a tendency in the development of Slovenian literary culture.

- The dominant, main role in which Slovenian authors appear, is that of narrator. In the pie chart it is followed by the role of a poet; far behind is the role of literary scientist or historian. Regarding the representativeness of the biographies corpus, that is somewhat surprising, since it precedes the role of a dramatist as well as critic. According to the statistical pattern of representativeness, the latter is closer to the role of an editor, librarian, printer.
Regarding gender, more than 90% of the authors are men. Since gender diversity was considered when we limited the material, we can say that the established proportion shows a representative share of male authors in the formation of Slovenian literary culture.
• The Slovenian authors’ prevailing social class is peasantry. Almost 40% of all the authors belong to it, which corresponds with the valid ascertainment about the predominating peasantry of Slovenian authors. However, it is impossible to overlook a share of authors who belong to a wealthy class of peasantry, which is followed by a share of authors from the working class. The smallest proportion of authors comes from aristocratic families, where it would be interesting to research gender diversity (male vs. female) as well as ethnic origins (the base of biographies includes authors whose mother tongue was not Slovenian but, for example, German). It is interesting that a good fifth of the authors belong to the lower and higher bourgeoisie.

<table>
<thead>
<tr>
<th>Social class of the parents</th>
<th>- aristocracy</th>
<th>- higher bourgeoisie</th>
<th>- lower bourgeoisie</th>
<th>- intelligentsia</th>
<th>- working class</th>
<th>- wealthy peasantry</th>
<th>- peasantry</th>
<th>- other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socialni sloj staršev</td>
<td>37,2%</td>
<td>9,0%</td>
<td>19,8%</td>
<td>12,4%</td>
<td>8,4%</td>
<td>3,1%</td>
<td>2,2%</td>
<td>4,6%</td>
</tr>
</tbody>
</table>

• It is reasonable to parallel social class with the statistical data about the authors’ education and consequently their attained social status, which rises with education. The share of authors, who attained upper secondary and high education, is almost 50%. This is in line with the data from the statistical analysis, which says that over two thirds of the authors rose to the intelligentsia.
According to the place of publishing a debut, Ljubljana comes first in more than half of the cases; it is followed by Klagenfurt, Maribor, Gorizia, Vienna and Trieste. Other places represent less than 1%. Vienna represents a small percentage, which is surprising, since Slovenian authors studied in Vienna. Therefore, we will need to closely study the 19th Century from this point of view, and see if there are closer connections between places of education and places of publishing.
In most cases Ljubljana is the place of the last book publication; it is followed by Maribor and Klagenfurt, then Gorizia, Celje, Trieste and Zagreb. Other places represent less than 1%. According to that we could say that Ljubljana, Maribor, Klagenfurt, Gorizia, Vienna, Trieste and Celje are the candidates for Slovenian literary centres. However, we need to verify the periods and consider other locations from the biographies (for example, are the listed places also the places of publishing, occupation, editing, printing etc.?). Only after that will we be able to give the listed centres, and for the considered period, the title “literary”.

In the next phases we have to direct our energies in several directions. Firstly, closer attention will have to be devoted to timelines, and thus follow the authors in space according to individual periods. On the basis of that, it will be possible to, for example, ascribe to Gorenjska the precedence over other provinces for Slovenian authors’ place of birth; or name Ljubljana as the Slovenian literary centre or capital.

Secondly, it will be necessary to map other spatial data from the biographies, which is on the authors’ life paths between the locations of birth and death, and then analyse it as it was demonstrated in the case of the 4 thematic maps above. The making of thematic maps for places of education, occupation and publishing for all 323 authors is foreseeable. This will enable us to present more valid conclusions about which settlements, locations, towns, provinces etc. played the biggest part in co-shaping Slovenian literary culture in the period from the Age of Enlightenment to the Second World War.
Sources and literature
