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**Georeferencing Criminality Hubs in Late 18th- and 19th-Century Romanian Principalities and Transylvania**

**Notes on the Maps***(Included and Not Included in the Poster)*

The analytical framework for mapping *hajduk* fiction was based on the following assumptions:

a. **The context of the *hajduk* fiction** sampled in the HaiRo corpus is as follows:  
a1) It was published in the second half of the 19th century, a period when national consciousness was reinforced by several historical events considered beneficial for Romanians (The Union of the Romanian Principalities in 1859, the War of Independence in 1877, the Proclamation of the Kingdom of Romania in 1881) and which fueled their aspiration to reunite all Romanian historical provinces (Moldavia, Bessarabia, Wallachia, Dobruja, Bukovina, Transylvania).  
a2) Except for a few anonymous texts, all books and feuilletons were published in Wallachia.  
a3) The distribution of authors’ birthplaces by region is relatively even between Moldavia and Wallachia, with greater productivity from Wallachian novelists. However, one-quarter of the authors are anonymous or have no references in literary dictionaries and encyclopedias (e.g., Alexandru Munte Stânceanu, Panait Popescu, Lazăr, Ștefan Stoenescu, Simeon Bălănescu, Anton Marcu).

b. **The documentary framework** is composed of seven data layers that were considered proxies for *hajduk* life:  
b1) **Crime records** (from the Criminal Department of Moldova).  
b2) **Movement along roads** (Poste Stations).  
b3) **Hiding places** (Forests).  
b4) **Treasure hiding** (Monetary Finds).  
b5) **Socializing and stopovers** (Pubs and Inns).  
b6) **Contemporary accounts** (eyewitness reports from *Foreign Travellers in Romania*).  
b7) **Long-term societal memory** (entries in the *Great Romanian Geographic Dictionary*).

c. **The documentary data layers are assigned three degrees of factuality** (strong, medium, low):  
c1) **Strong factuality**: Crime records (from the Criminal Department of Moldova).  
c2) **Medium factuality**: Geographic dictionary entries and accounts of foreign travellers.  
c3) **Low factuality**: Data on pubs, inns, forests, post stations, and monetary finds.

d. **Buffering zones were selected** according to the following criteria:  
d1) The most widely distributed and frequent toponyms in the HaiRo corpus (by number of texts).  
d2) The most mentioned toponyms in each text.

e. **Summed data layers were used** at various stages of our research to map the tension between the characters' legal status and the dynamics of *hajduk* life:  
e1) **Stopovers** (Poste Stations + Pubs from the Criminal Department of Moldova + Inns).  
e2) **Celebrating robbery** (Pubs from the Criminal Department of Moldova + Inns).  
e3) **Subjective accounts** (*Hajduk* novels + *Foreign Travellers in Romania*).  
e4) **Hiding Places** (Forests + Monetary Finds).  
e5) **Overall documentary framework** (sum of all data points).  
e6) **Data grouped by factuality intensity** (Low, Medium, and Strong).

f. **Data was extracted from both textual and visual sources**:  
f1) **Textual sources**: The digital corpus HaiRo (47 documents totaling 1,682,654 words) and an in-house archive of 20,000 scanned pages.  
f2) **Visual sources**: Russian, Austrian, and Romanian maps drawn in the first decades of the 19th century, Visual appendices in Arcus-Jantovanu (see References below).

### **A. MAPS OF ROMANIA (GENERAL)**

**1R\_landscape.png  
(INCLUDED)** This is a composite historical map of the Romanian principalities (Wallachia, Moldavia) and surrounding regions like Bessarabia and Transylvania, based on a map commissioned by the Russians in 1820. The base map, which uses Cyrillic script, shows topography, settlements, and rivers. Overlaid on this are multiple layers of thematic data represented by colored points and symbols. These layers illustrate the distribution of locations from *hajduk* novels, monetary finds, forest areas, travel infrastructure (roads, inns, post stations), and other historical records. Light blue hexagons with numbers indicate clusters or counts of data points in specific areas.

* **Base map title:** КАРТА БЕССАРАБІИ, МОЛДАВІИ И ВАЛАХІИ
* **Translation:** Map of Bessarabia, Moldavia and Wallachia

The map contains **6,826 documentary data points** and **525 literary data points** (for a total of 7,351 points), distributed as follows:

1. **Locations from the HaiRo corpus** (labeled “Hajduk novels”): 596 data points, of which 525 are located within the historical regions of Romania.
2. **Post stations and inns** from Austrian and Russian maps of the early 19th century (labeled “Poste Stations”): 267 data points.
3. **Monetary finds/Hoards** (labeled “Monetary Finds”): 237 data points.
4. **Geographic descriptions of places related to criminal activity** (labeled “Places geographic dictionary”): 27 data points.
5. **Late-18th- and early-19th-century Criminal Court Documents** (labeled “Places Criminal Department of Moldova”): 310 data points.
6. **Forest Toponyms/Phytonyms** (labeled “Forests…”): 910 for Moldavia; 2,971 for Wallachia; 478 for Transylvania; 872 for Oltenia (total: 5,231 data points).
7. **Travel accounts** (labeled “Foreign Travellers in Romania”): 158 data points.

The distribution of literary *hajduk* hubs (over 10 data points) by historical region is as follows:

1. **The Principality of Moldavia:** 3 (close to roads and forests).
2. **The Principality of Wallachia:** 3 (near forests and far from roads).
3. **Dobruja:** 1.
4. **Transylvania** (not part of 19th-century Romania): 3.
5. **Bessarabia** (not part of 19th-century Romania): 1.

In certain areas, particularly around Bucharest (Wallachia), Roman (Moldavia), or other historically significant regions, there is a higher concentration of the mapped phenomena: *Hajduk* Novels, forests, or data from the Criminal Department (for Moldavia). When dots representing different categories overlap, it suggests a spatial correlation or co-occurrence, not necessarily a direct causal relationship.

The following remarks account for what might be a data bias for the profiling of all historical provinces and a data mediator for the specific region of the Principality of Moldavia. The historical region of Moldavia has more layers of factual data than Wallachia ("Monetary Finds," "Places Criminal Department of Moldova"):  
 The three hubs in Moldavia are distributed across its Upper, Middle, and Low Lands, while the three hubs in Wallachia are concentrated in its Western and Middle Lands. *Hajduk* hubs in Wallachia are close to forests and far from roads (low factuality: hiding) and from accounts of foreign travellers (medium factuality: short-term attestation). In contrast, *hajduk* hubs in Moldavia are closer to roads and to locations from the geographic dictionary (low factuality: movement; medium factuality: long-term attestation). The visual data thus suggests that *hajduk* hubs in Wallachia are portrayed as static and of low factuality (linked to forests and hiding), while those in Moldavia are portrayed as dynamic and of low-to-medium factuality.

This commitment to factuality among Moldavian *hajduk* writers is reinforced by other data layers: 1. The Moldavian lowland hub (South Moldavia, 79 data points) is the largest and is surrounded by monetary finds (low factuality: treasure hiding). 2. The Moldavian upper-land hub (North Moldavia, 14 data points) is the smallest and is surrounded by data points from the Criminal Department of Moldova (strong factuality: crime). 3. The Moldavian middle-land hub (Middle Moldavia, 72 data points) is approximately as large as the lowland hub and is surrounded by forest data (low factuality: hiding) and stopover data (low factuality: partying/celebrating robbery). See also map 1M\_NOVELS\_CRIMINAL\_DEPARTMENT.png.

**2R\_landscape\_geographic.png  
(NOT INCLUDED)** This map contains two data layers (*Hajduk* Novels and Forests) and uses a relief map as its base. We used a relief map to explore whether the correlation between forest data points (low factuality) and landforms could help nuance the factuality values as far as the natural environment of forests is concerned. Indeed, the geography of the Moldavian Principality and Bessarabia (dominated by the Moldavian Plateau and the Bugeac Plain) may explain a landscape where forests are less dominant (as reflected in the toponym data) than in Wallachia. The map highlights cases that need more geographical insight: 1. The *hajduk* hub in Southern Bessarabia (16 data points) is in the Bugeac Plain, where forests were unlikely. 2. The hub in central Transylvania is in the Transylvanian Plateau, where forests need further documentation, as available toponymic resources provide unreliable information. 3. The hub in Dobruja (21 data points) is in the Danube Delta landscape for which forests are not typical.

**3R\_novels\_geographic\_dictionary.png  
(NOT INCLUDED)** This map contains data points from the *Hajduk* novels and the geographic dictionary, the latter being a small dataset of 27 toponyms related to *hajduk* figures from the *Marele Dicționar Geografic al României* (Great Geographic Dictionary of Romania). As a rule, literary data clusters are far from the geographic data points (medium factuality), with the only exception being Middle Moldavia (clustering 72 literary data points). The other geographic data points are very close to roads or to mountain passages and river borders not yet marked on our map.

**4R\_novels\_travellers.png  
(NOT INCLUDED)** This map was created to test if data from foreign travellers aligns with the main commercial routes of the Romanian provinces. Generally, the places mentioned in travel accounts are close to the main roads; thus, information about places of passage and hajduk robberies can be considered reliable.

**5R\_novels\_post\_stations.png  
(NOT INCLUDED)** This map was created to check the density of post stations along the main commercial routes. It is easy to notice that inland routes have fewer post stations than the border routes, which means these roads have longer stretches that are unmonitored by authorities. Literary data clusters are generally surrounded by post station data, with the exceptions of two large hubs near Câmpina and Râmnicu Vâlcea.

**6R\_novels\_stopover.png  
(NOT INCLUDED)** This map explores the relationship between mobility and pause, comparing places in novels that suggest *hajduk* movement with factual data about stopovers. The visualization shows the discontinuity between the two states, places for hiding and rest being far from the places contained in the literary data set. It makes sense to presume that hajduk literary places are mentioned to a higher degree as transit and movement points than as stopover points.

**8R\_novels\_forests\_cluster.png  
(NOT INCLUDED)** This map shows a very strong and intuitive correlation between *hajduks* and refuge places like forests. The overlap reinforces that forests were a common and stereotypical setting for these stories.

**10R\_Forest\_Novels\_Stopovers.png  
(INCLUDED)** This map shows that *hajduk* hubs are closer to forests than to stopover places (Post Stations, Pubs, Inns). Eleven *hajduk* clusters (with more than 10 data points each) are scattered across the five historical regions. Given the data limitations for Transylvania, Dobruja, and Bessarabia, this visualization focuses on Moldavia and Wallachia. Of the seven clusters in these principalities, six are grouped with forests. The largest *hajduk* hub in Moldavia (79 data points) is also surrounded by a cluster of stopovers, while the largest hub in Wallachia (82 data points) is not. Instead, two of the smaller Wallachian hubs are located near stopover clusters. In general, stopover clusters are isolated from other data, suggesting that hiding (in forests) and socializing (in pubs and inns) represent two distinct aspects of *hajduk* activity. The main exception is the border area between Wallachia and Moldavia.

**11R\_Documentary\_factuality\_framework.png  
(INCLUDED)** This is a heatmap comparing all factuality data points to literary data points (*Hajduk* Novels) and, by extension, to the portrayal of *hajduk* criminality in genre fiction. Because of the volume of low-factuality data (chiefly forests), the factuality framework in Wallachia is rather diffuse. However, the largest literary cluster (82 data points) is very close to the "hottest" area on the map, a perimeter formed by Câmpina, Ploiești, Buzău, and Râmnicu-Sărat. The proximity of the fictional *hajduk* area to this factual perimeter suggests the novels’ tendency toward factualization. In contrast, the hubs in Oltenia lack a clear factual center, suggesting they are closer to fictionality and myth-making. As for Moldavia, the documentary framework has a center of gravity in the Roman-Iași-Vaslui perimeter. Only one of the largest literary clusters (69 data points) is close to this perimeter, suggesting, as in Wallachia, the novels’ commitment to the “pleasures of factuality” (Lavocat 2020).

**12R\_low\_factualityRO.png & 13R\_medium\_factualityRO.png**These heatmaps show the distribution of factuality data. Low-factuality intensity appears as "hotspots" in the regions of the largest *hajduk* hubs, but they do not overlap, showing a poor correlation. Medium factuality does not appear as distinct hotspots; instead, it covers all provinces and surrounds the literary data, which shows a correlation between literary *hajduk* spatiality and medium-factuality intensity.

### **B. MAPS OF MOLDAVIA (DETAIL)**

**1M\_NOVELS\_CRIMINAL\_DEPARTMENT.png  
(NOT INCLUDED)** This map shows that data points from the Criminal Department of Moldova are clustered with fictional data in the northern and southern parts of Moldavia. This visualization would suggest that the *hajduk* cluster in middle Moldavia belongs more to the *hajduk* mythmaking than to the attested phenomenon of criminality.

**2M\_novels\_coins.png  
(NOT INCLUDED)** This map shows that monetary finds are closer to fictional data in northern and southern Moldavia. The middle-land *hajduk* cluster remains unsupported by this data, which again suggests this area belongs more to the literary myth. However, the zones of stealing (hajduk hubs) and the zones of burying monetary treasures look like distinct traits of activity.

**3M\_Detail\_principality\_2.png  
(NOT INCLUDED)** This map is a detail of historical Moldavia. Except for two clusters near the northern and eastern borders, the literary data is arranged along two major commercial routes: Via Valachica and Via Tartarica. The two large border clusters likely belong to the older Mongol Road, abandoned after the 16th century, and thus relate to a legendary period. The largest clusters of monetary finds are far from these two roads, confirming that hiding treasure involved avoiding highly circulated routes and hajduk robbery.

**4M\_buffer\_MAINLAND\_Moldova.png  
(INCLUDED)** This map shows four buffer zones around cities on Via Valachica that are also widely distributed across the HaiRo corpus: Tecuci, Adjud, Bacău, and Roman. These areas consistently appear as significant centers of mapped phenomena. With a few exceptions, the factual data is distributed gradually from the 10 km inner circle to the 30 km outer circle. The proportional increase in data points as the area expands shows that the documentary dataset we assembled is balanced and reliable.

**8M\_buffer\_Tecuci\_Adjud\_4.png  
(NOT INCLUDED)** This map shows the similarity of data point counts around two cities located on the two concurrent roads of Moldavia (Via Valachica - Adjud and Via Tartarica - Tecuci).

**9M\_buffer\_bordering\_cities.png  
(NOT INCLUDED)** This map provides data for the northern and eastern borders of the Principality of Moldavia.

**10M\_low\_factualityMD.png, 11M\_medium\_factualityMD.png, & 12M\_Strong\_factualityMD.png  
(INCLUDED)** These heatmaps compare the proximity of literary *hajduk* hubs to zones of different factuality intensities in Moldavia. The visualizations are straightforward: the literary *hajduk* hubs in Moldavia are closer to medium- and strong-factuality zones than to low-factuality zones.

### **Conclusions**

All maps demonstrate how physical geography (forests, roads) was intertwined with human activity (travel, crime) and cultural narratives (*hajduk* novels, foreign accounts).

Taking into account the bias introduced by the forest dataset, the documentary framework indicates that the literary portrayal of banditry in Muntenia (Wallachia) is more closely linked to hiding and stopping over (forests, inns) than to criminal acts. In contrast, considering the two major trade routes in Moldavia and the distance from monetary hoards and crime scenes, literary *hajduk* life in Moldavia is more likely linked to mobility and crime (highway robbery). This conclusion is also supported by the origins of the authors: those from Muntenia (e.g., N.D. Popescu) propose a romantic type of *hajduk* linked to the forest topos, while those from Moldavia (e.g., Panait Macri) propose a criminal type, more akin to a bandit.

The distinction between the two types of literary *hajduk* spatiality—one more factual (Moldavia) and the other less factual (Muntenia)—is also supported by the concentration of literary data on major trade routes. The Galați-Tecuci-Adjud-Bacău-Roman connection in Moldavia is more densely populated with literary data than the routes in Wallachia. From this perspective, the Moldavian *hajduk* is “the factual Other” of the heroic *hajduk* archetype. This factuality is not accidental, as the phenomenon was reported in Moldavia even in the early 20th century (e.g., the *hajduk* Coroi).

In short, the two literary *hajduk* spaces are characterized by two topoi: the *hajduk* forest versus highway robbery. One is closer to fiction and myth; the other is closer to facts and testimonies. The factuality of Moldavian *hajduk* prose contradicts the general critical tendency to view Moldavian prose as lyrical and idyllic (e.g., Lovinescu, Călinescu).

**Notes for further research:** Bessarabia and Transylvania are not sufficiently documented. In the next stages of research, we will focus only on the two united principalities, for which the *hajduk* novel is a specific aesthetic and social phenomenon. As shown by the *Dicționarul Cronologic al Romanului Românesc* (2003), the genre's evolution declines after the formation of Greater Romania in 1918.

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