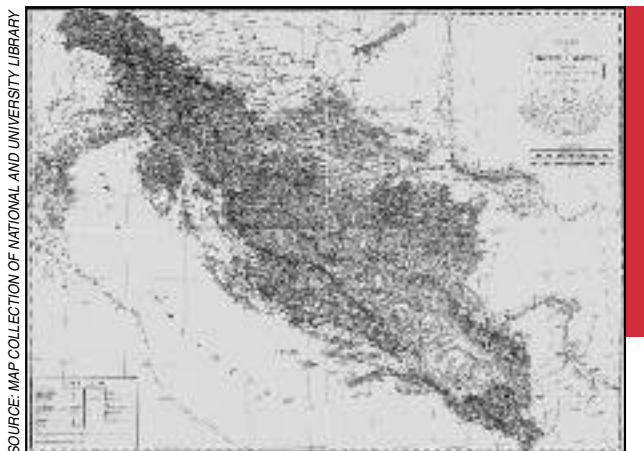


THE 1812 MAP OF THE ILLYRIAN PROVINCES BY GAETAN PALMA

O ZEMLJEVIDU ILIRSKIH PROVINC GAETANA PALME IZ LETA 1812

Primož Gašperič



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Zemljevid Ilirskih provinc Gaetana Palme iz leta 1812

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ABSTRACT: Despite their short existence, the Illyrian Provinces have left traces in Slovenian politics, culture, and ethnic awareness. One tangible result of French rule was the *Carte des Provinces Illyriennes* (Map of the Illyrian Provinces) by Gaetan Palma, clearly showing the territory of the provinces and their surrounding areas. After nearly two centuries, this high-quality cartographic work continues to preserve its conceptual value and communicates the level of cartographic development and the political extent of Napoleon's France at the beginning of the nineteenth century to the reader.

KEYWORDS: geography, historical cartography, maps, Illyrian Provinces, Gaetan Palma, Slovenia

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1 Introduction

Slovenia's current western border lies five hundred kilometers from France's eastern border as the crow flies, with the great expanse of northern Italy between them. Due to changes in Europe's political layout and the subsequent changes in borders, French and Slovenian territory were once physically closer than now. Their political and territorial connection was the strongest during the rule of Napoleon Bonaparte (i.e., at the end of the eighteenth and beginning of the nineteenth century). The French army passed through Slovenian territory in 1797, 1805, and 1809. In 1809 (at the end of the War of the Fifth Coalition between Austria and Great Britain on the one side, and France and Bavaria on the other), Napoleon won the decisive battle at Wagram (Callender and Bullocke 1963). The war ended by signing the Treaty of Schönbrunn and the establishment of the Illyrian Provinces. These included the territory of Gorizia, Trieste, Istria, Carniola, the area south of the Sava River between Carniola and Bosnia, Dalmatia, the Bay of Kotor, and Dubrovnik (Vodopivec 2006). In 1810, eastern Tyrol was also annexed to the Illyrian provinces, and a year later some territory was taken away from them to the benefit of (Napoleon's) Kingdom of Italy.

The Illyrian Provinces covered 55,000 square kilometers and represented a completely artificial and geostrategically very vulnerable creation. The definition of its borders based on natural geographic features, regardless of the ethnic structure of the population, suggests that the reason for establishing the provinces was strategic (Šumrada 2006). The Illyrian Provinces provided France with a land route to the Ottoman Empire, made it possible to control the Adriatic coast, blocked Austria's access to the sea, and thus enabled a more effective trade blockade against the United Kingdom, which was a great opponent of Napoleon's France and was Austria's ally.

The 1812 map of the Illyrian Provinces *Carte des Provinces Illyriennes comprenant la Bosnie, l'Herzégovine, le Monténéro et quelques pays adjacens* (Map of the Illyrian Provinces, Containing Bosnia, Herzegovina, Montenegro, and Some Neighboring Lands) was commissioned by the first governor-general of the Illyrian

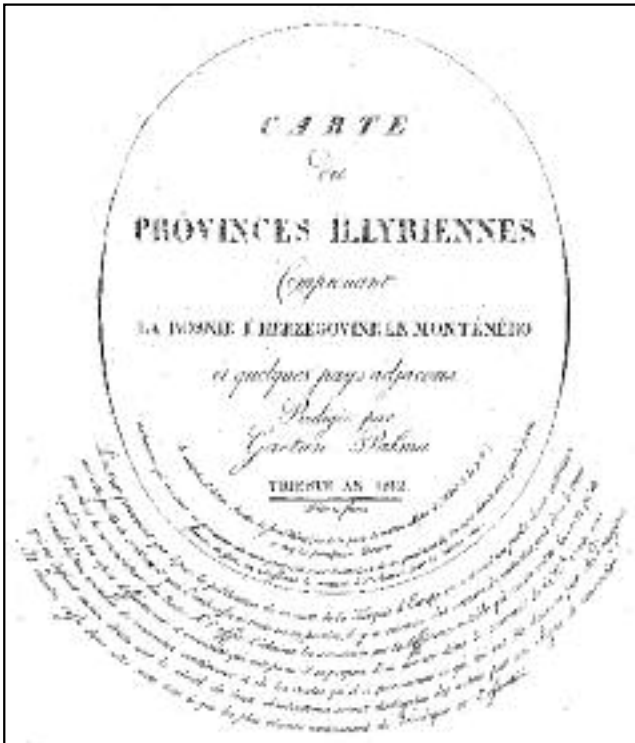


Figure 1: Title of the map with the author's commentary.

Provinces, Marshal August de Marmont. Its author worked at the headquarters of the French Dalmatian army (later on, the Illyrian army). The map's author and publisher was the military cartographer Gaetan Palma, who served in the French military for a while and published this map in Trieste (Scott 2003). In 1811, he also published a map of the European part of Turkey titled *Carte de la plus Grande Partie de la Turquie d'Europe* (Map of the Greatest Part of European Turkey). Both maps show southeastern Europe, but differ significantly. The *Map of European Turkey* shows the territory stretching from Trieste to the Aegean coast of Turkey. The text is written in French, Latin, and Greek, the scale is smaller, and the territory covered is larger (i.e., the Balkan Peninsula) than on the *Map of the Illyrian Provinces*, which includes more up-to-date and precise information.

2 Maps as Reflections of Political, Social, and Cartographic Conditions

The beginning of the nineteenth century saw the rise of modern cartography. Half a century before that, the first topographical map of France began to be developed under the supervision of several generations of the Cassini family. They produced it using the most state-of-the-art technical tools of that time, extensive and systematic measurements, and the triangulation method for locating points in the field. This pioneering work was gradually followed by cartographic works in other countries. In the Austrian Empire (part of the Holy Roman Empire prior to 1806), the modern cartographic method using triangulation first started being applied in 1762. The western part of the monarchy was mapped around 1830 and the areas covered also included the territory of what is now Slovenia, part of continental Croatia, and Dalmatia (Macarol 1977). From 1763 to 1787, the first systematic topographical military measurements were taken in the empire, but the maps created based on these measurements do not reflect a precise land-survey basis. Despite their cartographic errors, their large scale, precision, and data density nonetheless make them some of the best cartographic works of the second half of the eighteenth century. The measurement is the result of Seven Years' War with Prussia, which occurred between 1756 and 1763. It turned out that poor quality of maps and, consequently ignorance of terrain also affects course of war (Gábor et al. 2009).

From 1806 onwards, the French systematically mapped the eastern Adriatic coast and its islands. The work was headed by the French hydrographer Charles-François Beautemps-Beaupré, who is considered the founder of modern European marine cartography and hydrography (Kozličić 1995a, Kozličić 2006).

The current perspective on the historical events of the nineteenth century may suggest that the short existence of the Illyrian Provinces was irrelevant and merely represented a footnote in Slovenian history and its archives; however, this is not true. The Illyrian Provinces were the result of French political and military influence expanding towards the east, which, despite existing for only a short period, left an indelible mark on the territory of today's Slovenia. This encompasses not only changes in Slovenians' linguistic, social, and political awareness, but also the manner of portraying a part of Slavic territory that was combined into a uniform political unit. This attracted the attention of French cartographers, who helped preserve the historical memory of the Illyrian Provinces. The older map is a historical document revealing the political and cultural image of the period in which it was created and thus has an additional communicative value. It is the result of two factors: production and use. The commissioner's wishes and concept and the producer's creation reflect the cultural, political, and social conditions of that time. The reader, in turn, represents an aggregate of these expectations (Fridl and Urbanc 2006). Maps can be understood as a type of language intended for a specific audience (Urbanc et al. 2006, Kladnik et al. 2006). They also express the form of knowledge that the environment in which they were created possessed and conveyed in a cartographic form (Urbanc et al. 2006, Fridl and Urbanc 2008). It is its production and communicative value in particular that make Palma's map so convincing. However, because of the single-color cartographic elements and their density, it can be difficult to read the map in certain places. In order to avoid this to at least some extent, and to obtain a clearer picture of the entire political and administrative division of the provinces, in 2004 Milan Orožen Adamič and Janez Šumrada improved this map in a digital format. The original copy was black-and-white, and so Orožen Adamič logically updated certain cartographic elements, thus facilitating reading and understanding the map. The map highlights and shows the basic

administrative units and their centers. The map was updated such that the inserted names and topographic labels and the color transparency of borders do not reduce the readability of the cartographic original. Because the map shows a great deal of territory outside the Illyrian Provinces, the state border colored in red was a very welcome addition. Yellow is used to mark the borders between the provinces and the regimental borders in the Croatian Military Frontier. The blue line (north of Kanal ob Soči) marks the changed Italian-Illyrian border after the decree at Saint-Cloud adopted on 5 August 1811, which slightly reduced the territory of the provinces. On this map as well, the capital Ljubljana is written in a larger purple font, whereas other towns are printed in black. All of the other towns are labeled with the name used today; for example, Ljubljana (*Laybach*), Piran (*Pirano*), Karlovac (*Carlstadt*), Šibenik (*Sebenico*), and so on. The provincial capitals are circled in green, the district capitals are circled in red, and the canton capitals are circled in yellow.

3 Maps as a Means of Expression

3.1 Description of the Area Covered

Palma's *Map of the Illyrian Provinces* is composed of four sheets each measuring 46 × 62 cm, and the entire map measures 92 × 124 cm. The four sheets together constitute a formal and conceptual whole. Only at the joints of these sheets can a partial discrepancy be noticed if the map is inspected in great detail; although the lines (i.e., borders and watercourses) continue on the next sheet with or without a gap, the discrepancy is more pronounced with regard to relief. The most obvious difference is noticeable when joining the first sheet with the second and third sheets. On the first sheet, nearly all the surfaces are displayed with short lines, which gives the impression that there are hardly any flat surfaces. This is why it also looks darker than the other three sheets. When the »lowland« area represented by short lines continues on the second or third sheet, it becomes white, without any slope inclination labels. It can be concluded that the map's printing plates were not made by the same engraver. The reasons for these differences can be also found in the different data available to the engraver, his conceptualization, and precision.

One strength of the map is that it also shows territory outside the Illyrian Provinces. The only exception is the northwestern part (i.e., the upper reaches of the Drava River from its source to Villach), where the relief depiction ends with the provincial border. In what is now Slovenia and to the south of it, the mapped area becomes significantly wider from the narrow border zone towards the southeast. In Slavonia and Srem, the relief is only marked in hilly areas, whereas beyond the borders of the provinces primarily major routes and watercourses are marked.

The first sheet shows the northern part of the Illyrian Provinces, encompassing the territory of what are now East Tyrol, Austrian Carinthia, eastern Italy, Slovenia, and Croatia. The names of the following regions are given: Carinthia (*Carinthie*, labeled *I*), Istria (*Istrie*, *II*), Carniola (*Carniole*, *III*), Civil Croatia (*Croatie Civile*, *IV*), the Croatian Military Frontier (*La Croatie Militaire*, *VII*), and the part of Croatia under Turkish administration (*Croatie Turque*, *VIII*). The labels 2–6 REG denote the locations of individual military regiments in the Croatian Military Frontier or military Croatia. Part of Bosnia extending to the Sana River also lies outside the provinces.

The second sheet shows Slavonia and Srem including Belgrade, the reaches of the Danube east of Belgrade to today's border with Romania, and the northern part of Bosnia to the Sava and Drina rivers. This part of the map only shows the territory of the Illyrian Provinces west of the confluence of the Sava and Una. Information about the map is provided in the upper right-hand corner.

The third sheet shows central Dalmatia (*Dalmatie*, *V*) south of the island of Lošinj to the islands of Brač and Hvar, and the mainland north of the Velebit and Dinara mountain ridges. The location of the First Krajišnik Regiment (*I REG*) is also marked. The legend is provided in the lower left-hand corner.

The fourth sheet shows southern Dalmatia, the former Republic of Ragusa (*Province de Raguse*, *VI*), Bosnia (*Bosnie*, *IX*), Herzegovina (*Herzegovine*, *X*), and Montenegro (*Montenero*, *XI*). The border of the map runs along the following line: Drina–Goražde–Bijelo Polje–Skadar–Bojana. East of this line, only individual watercourses and roads are displayed. An exception is the road leading from Goražd through Prijepolje, Novi Pazar, Priština, and beyond.

3.2 Map Overview

In addition to the cartographic representation of the Illyrian Provinces and its neighboring areas, the map is also comprised of information within and outside the map area, which presents the map's characteristics and explains individual cartographic elements in greater detail. The information within the map area contains data on the coordinate values that determine the longitude and latitude of a specific place on the map. The information outside the map area contains all the data outside the map frame. On modern maps, a great deal of data is given outside the frame to enable accurate interpretation of the map. On smaller-scale maps, especially older ones, this content is displayed inside the map frame, between the cartographic representation of the territory and the frame. The map discussed contains two data sections, on the second and third sheets.

A vertical ellipse is printed in the upper right-hand corner, containing the title, author, place, and year of publication, as well as information about purchasing the map. Under the ellipsis, the author's comments on the quality of the map compared to other cartographic works depicting this part of Europe are printed in seven semicircular lines. The author comments that, after the publication of his *Map of European Turkey* (described above and published a year earlier), a great deal of cartographic material covering the same area was published. He established that these works contain many errors, which is why he presented the difference between his and other works. In 1812, he thus made »a second edition of the map containing new material and routes that he traveled or were described to him by travelers whose observations are true without a doubt, and represented by a standard symbol, in contrast to others« (*une seconde édition enrichie de nouveaux matériaux et où les routes qu'il a parcourues ou qui lui ont été données par des Voyageurs qui ne laissent aucun doute sur la vérité de leur observations seront distinguées des autres par un Signe de convention*). On this new map of 1812, he also collected all the data that were used in other more recent versions and that were important and real. It can thus be concluded that Palma tackled the production of both maps very seriously and responsibly; especially with the *Map of the Illyrian Provinces*, his goal was to provide a modern, high-quality, and useful cartographic work to future readers.

Perhaps the ellipse described above could also be understood as an allegorical depiction of an egg in the nest. One can only guess what the reason for this would be. In older maps, decorative additions were a component part of the map, and the data section was often a place for artistic expression. However, at the end of the eighteenth century and even more notably in the nineteenth century, these additions, which

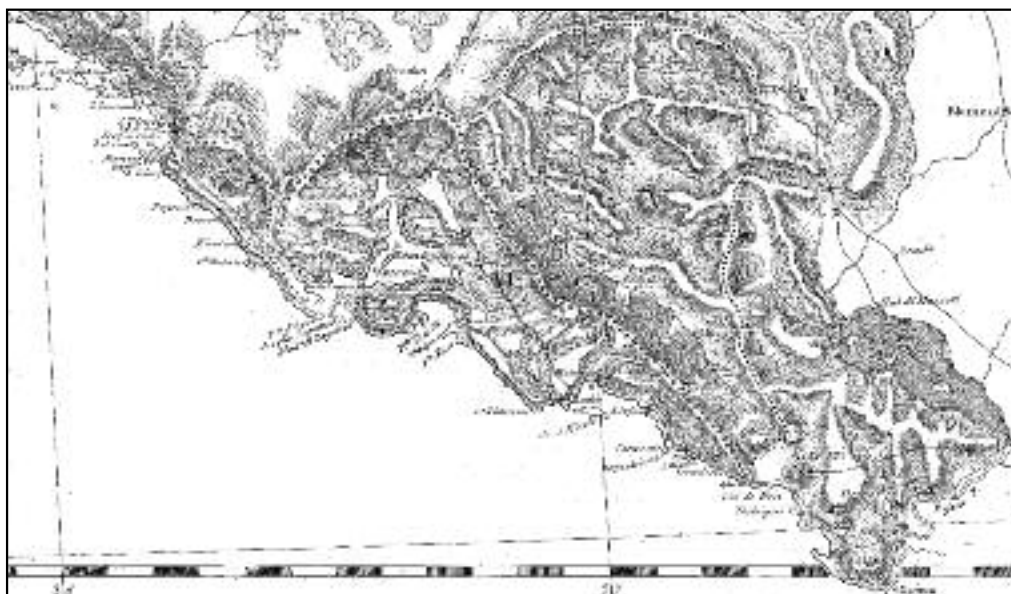


Figure 2: Excerpt from the Map of the Illyrian Provinces.

were actually irrelevant to the cartographic representation, gradually began to be abandoned or were only used to a limited extent.

The scale bar is provided below these data in the form of six equally long bands subdivided for each unit of measurement.

The legend in a rectangle in the lower left-hand corner explains various cartographic symbols denoting towns, roads, boundaries, and post offices. The right side of the rectangle contains the names of the three parts of the Illyrian Provinces: the civil (*Provinces Civiles*), military (*Province Militaire*), and Turkish (*Provinces Turques*). These are further divided into the names of smaller territorial units or provinces labeled with Roman numerals. Below the legend, the author added his comments on the major routes drawn in the areas under Ottoman administration: »The major routes of the Turkish provinces are drawn based on new material collected in the field that has not yet appeared on any other map« (*Le communications principales des Provinces Turques ont été tracées d'après de récents matériaux dessinés sur les lieux, et qui n'ont encore paru sur aucune carte*). In addition to the territory of the Illyrian Provinces, the map also shows the territory of what is now Bosnia-Herzegovina and Montenegro, and several major routes and mountains in Serbia and Kosovo to the east. At the beginning of the nineteenth century, these areas still belonged to the Ottoman Empire and were therefore not well known. As in his comments below the title, the author again drew attention to the fact that he mapped the most up-to-date information available at that time.

In both data sections, the data are provided in French. The majority of toponyms are provided in Italian; in some places, they are Italianized, and some are provided in the local language (German or a Slavic language).

3.3 Description of Cartographic Elements

This map can be equated with other maps of that time, but it surpasses them in many aspects in terms of the cartographic elements presented. At the beginning of the nineteenth century, many authors used older and simpler presentation techniques. The *Map of the Illyrian Provinces* is very high quality, although not outstanding, in presenting the relief. The first half of the nineteenth century saw a transition from stylization to the plastic method of presenting terrain. In the eighteenth century, the first technique was characterized by the simple »molehill« method with hill profiles of various heights and shapes, which the authors usually shaded with short lines on the eastern side of mountains. With the plastic or spatial method, a three-dimensional effect is achieved using color shades, lines, and dots. The first half of the nineteenth century was characterized by the development of the hachure method, which was standardized in 1799 by Major Johann Georg Lehmann of Saxony. The basis of this method is the use of strokes (or hachures) of various lengths and thickness drawn in the direction of the steepest slope. The length and thickness of the strokes represents the surface inclination, and their location and distribution represent the relief forms (Perko 2001).

An overview of a dozen randomly selected maps from the collection of the ZRC SAZU GIAM Geographical Museum and the Ljubljana National and University Library that were created between 1778 and 1836 and show part of or the entire territory of the Illyrian Provinces shows the characteristics of the period in which Palma's map was produced. The map uses two methods of representing relief, either separately or combined. Relief is represented by shaded hill profiles of various sizes and shapes, a combination of hill profiles and short lines, simple and more detailed relief forms represented by short lines, and Lehmann's hachure method. The maps by cartographer Joseph Karl Kindermann (e.g., *Charte von Kaernten und Krain, nebst den Grafschaften Görz und Gradiska und dem Gebiete von Triest* 'A Map of Carinthia and Carniola along with the County of Gorizia and Gradisca and the Trieste Area') from the first half of the nineteenth century represent relief in the simplified form of curved or straight »hairy caterpillars« composed of short lines of various density (Gašperič 2007). The 1810 general map of the Illyrian Provinces (*General Charte der Illyrischen Provinz*) by the post office clerk Ignazio Heymann is an example of a cartographic work with a remarkable three-dimensional effect achieved through a combination of hill profiles and short lines. In 1832, the map of the Duchy of Carniola (*Karte vom Herzogthume Krain*) was published by the military land surveyor Gottfried Loschan, who used Lehmann's hachure method.

Palma's *Map of the Illyrian Provinces* represents relief in an extremely three-dimensional manner through various lengths, widths, and positions of short lines. This is not yet a true Lehmann hachure system, but it is a close approximation. Among other things, Lehmann's method is characterized by using variously

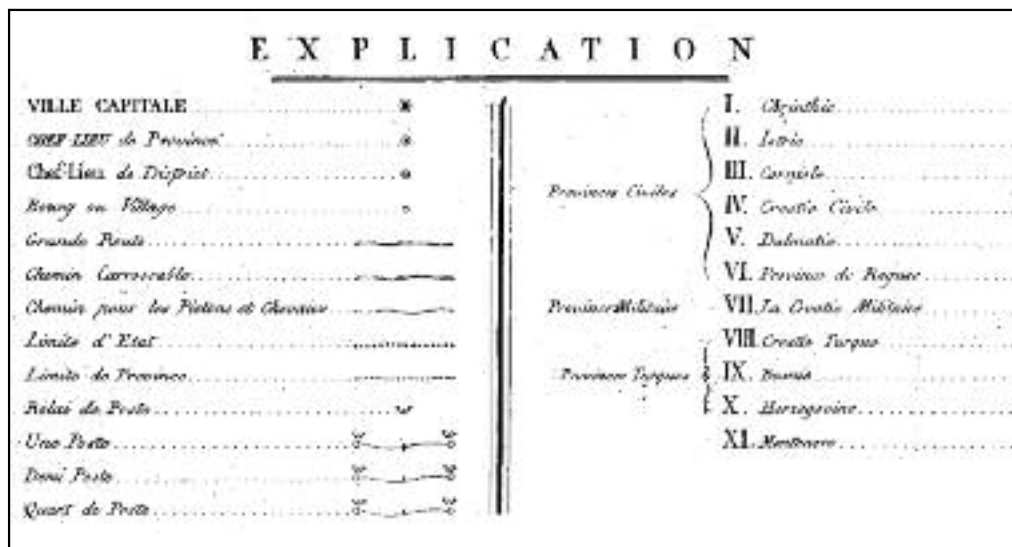


Figure 3: Legend from the Map of the Illyrian Provinces.

thick and continuous strokes for different relief inclination. This map uses strokes of various thicknesses (either continuous or interrupted); in some places, the strokes change into very short and thicker strokes and dots.

Some cartographic elements are broken down and explained in the legend. Roads are divided into three groups: (1) main routes (*Grande Route*) are represented by two parallel lines (they were probably wide enough for two carts to pass), (2) cart roads (*Chemin Carrossable*) are represented by a line and a parallel dotted line, and (3) footpaths (*Chemin pour les Pietons et Chevaux*) are represented by a single line (suitable for people on foot, pack animals, and riders). Great importance is placed on traffic routes, which are also drawn outside the territory of the Illyrian Provinces, where relief is not presented. Towns are divided into four categories according to their size and importance. They are represented by different fonts and circles with a small or large black dot in the middle. The capital city (*VILLE CAPITALE*) is represented by the largest circle and a dot, and printed out in capital letters. Ljubljana (*LAYBACH*) was the capital of the Illyrian Provinces, and as such it is the only town represented in this manner. The capitals of individual provinces (*CHEF-LIEU de Province*) are represented by a slightly smaller circle and a dot. Because the signs representing the capital of a province and the capital of a district (*Chef-Lieu de District*) are nearly the same size, they are primarily distinguished by font. The capitals of provinces are printed in all upper case, and the capitals of districts are printed in mixed case. The smallest settlements such as markets or villages (*Bourg ou Village*) are represented by a small empty circle. If roads lead through settlements, the circle on the map is represented as a connecting link between two lines, so that the line never crosses the circle. No major roads leading to remote settlements are marked. In addition to these labels, the map also uses squares, pentagons, and hexagons, which represent individual (fortified) settlements.

In line with the administrative division, borders are represented in two ways. The external border of the Illyrian Provinces or the state border (*Limite d'Etat*) is represented by a line of crosses. It is marked everywhere except on the rivers (the Sava and Una) and the sea. The borders between individual provinces (*Limite de Province*) are represented by a dotted line.

The legend also explains the symbols representing postal distances or marked postal routes. Places that had their own postal stage (*Relai de Poste*) are labeled with a post horn. The postal distance (*Une Poste*) referred to the distance between two postal stages measuring approximately fifteen kilometers or two Austrian miles (Jurišević 1981). One Austrian mile equaled 7,585.9 meters. This distance was used as reference for changing horses, technical assistance, rest, invoicing, and so on. Due to various route difficulty levels (relief, road conditions etc.), the distances between postal stages could differ. Using one postal distance unit, roads

were represented by different numbers of perpendicular short lines of various lengths on the road line. A three-millimeter transverse short line represented one postal distance. Two transverse short lines represented two postal distances, a half-line (*Demi Poste*) represented half a postal distance, and a dot over the road represented a quarter of this distance (*Quart de Poste*).

No vegetation is represented on the map, but wetlands are (e.g., between Aquileia and Venice). The river network represents small and large rivers; however, due to similar representation they are often mistaken for footpaths, making it more difficult to read the map. In some places, the names of rivers help the reader.

The map includes a scale bar and projection information, which belong to the map's mathematical elements. The scale bar is graphic or linear and is in the upper right-hand corner below the title and author's comments. It is composed of six equally long bands, drawn separately for each unit of measurement. The length of the unit of measure (e.g., miles, kilometers, and so on) is defined by the distance between the shaded and empty sections and the numbers above or below the bands.

In determining the representative fraction (i.e., the ratio between a unit of length on the map and the corresponding unit of length on the actual ground surface), three methods were used. The lengths of ten randomly selected routes and distances were measured and compared to the same distances on a contemporary map. Due to possible errors in the map, discrepancies at the joints of all four parts of the map, and measuring errors, the data obtained were only approximate. This is why the data were obtained from the bottommost graphic scale bar, which stated that 110 kilometers in nature corresponds to 172 millimeters on the map. Due to an additional segment at the beginning of the scale bar, which was not taken into account in the final value, approximately 2.5 kilometers had to be added. 172 millimeters thus corresponded to 112.5 kilometers in nature.

This means that the map uses a 1 : 654,070 scale. Because the bands were the same length for all six scale bars presented, the data from the meter scale were used to calculate the values of the other units, in which the same result was obtained. In order to confirm or reject the results obtained, data for these units of measurement were looked up. In the literature and on the Internet these values differ slightly, but there are no significant deviations. The following values were taken into account: 1,837 meters (1 : 640,814) for the Italian mile, 7,412.7 meters (1 : 646,456) for the German mile, and 4,452.2 meters (1 : 647,122) for the old French common league (*lieue commune*; Internet 1, 2, 3). It can be thus concluded that the map scale is approximately 1 : 650,000.

The maps from the beginning of the nineteenth century only rarely include a projection, and they even more rarely name it or describe it. On this map, the grid of meridians and parallels is clearly visible. Thus Ljubljana lies at approximately 46° 03' north latitude and 32° 14' east longitude. Its latitude is the same as today, whereas the longitude is different (today's longitude is approximately 14° 30').

The reason for the difference in the degrees of longitude lies in the prime meridian. Throughout history, its location varied according to the decisions of individual countries; however, at the 1884 International Meridian Conference in Washington a uniform prime meridian was selected: the meridian running through the Royal Observatory in Greenwich, east of London (Fridl 2005). On the *Map of the Illyrian Provinces*, the prime meridian runs through the island of Ferro (today's El Hierro), the southernmost and westernmost



Figure 4: Graphic scale bar from the Map of the Illyrian Provinces.

island of the Canary Islands. It lies 18° west of Greenwich, which is also the degree difference in the Ljubljana coordinates. The difference in minutes (') is a result of poor accuracy of the map and related errors, and increased difficulty of defining the coordinates. Upon a more detailed inspection of the map, it can be seen that in places the territory presented is overly stretched given the degree grid used. This is especially notable in the coastal belt. The distortions begin to increase west of the meridian marking today's 16° east longitude. Zadar (*Zara*) lies in the belt of 14° east longitude (its precise coordinates are 15° 13'), the Istrian peninsula and the greater part of the island of Cres lie to the east in the belt of 13° east longitude (in reality, the eastern third of the Istrian Peninsula already lies in the 14° belt). In terms of the degree grid used, the location of the coastal area east of 16° is more accurate. On the mainland, the deviations range from several minutes (e.g., at Villach [*Willach*]) to approximately half a degree (e.g., at Sarajevo [*Seraglio*]).

The meridians are straight lines projected like rays from a hypothetical point above the map, and the parallels form equally spaced parallel arches. Based on the characteristics described, it can be concluded that the projection used is a conic one. Conic projections were frequently used to represent the middle latitudes (Lovrenčak 1996).

4 Conclusion

The *Map of the Illyrian Provinces* was produced by Gaetan Palma, who is barely known today. It ranks among the highest-quality cartographic works of the period when it was created. It is distinguished by a relatively large scale, a high-quality cartographic representation of relief for that time, and the division of certain cartographic elements. Considering that the map was produced under the influence of victorious France, which was one of the greatest political and cartographic powers of the time, and the fact that it represents a territory that was generally known to the French, but not studied in great detail, this map deserves a special place among the cartographic representations of this part of Europe. The map is a comprehensive representation of the Illyrian Provinces produced for an entirely practical and everyday purpose. Its purpose was to make the area presented more familiar and better understood in all aspects.

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O Zemljevidu Ilirskih provinc avtorja Gaetana Palme iz leta 1812

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IZVLEČEK: Ilirske province so kljub kratkemu obstoju pustile sledi v slovenskem političnem, kulturnem in nacionalnem prostoru. Eden izmed oprijemljivih rezultatov francoske vladavine je zemljevid Ilirskih provinc avtorja Gaetana Palme, ki nazorno prikazuje ozemlje provinc in bližnja območja. Kakovostno kartografsko delo po skoraj dveh stoletjih ohranja vsebinsko vrednost in sporoča bralcu stopnjo kartografskega razvoja in politično razsežnost Napoleonove Francije v začetku 19. stoletja.

KLJUČNE BESEDE: geografija, historična kartografija, zemljevidi, Ilirske province, Gaetan Palma

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1 Uvod

Današnja zahodna meja Slovenije je oddaljena od vzhodne meje Francije dobrih petsto kilometrov zračne linije in poteka preko celotne severne Italije. Zaradi spreminjanja politične podobe Evrope in posledično spreminjanja meja sta bila v preteklosti francosko in slovensko ozemlje fizično tesneje povezana kot danes. Politično in ozemeljsko prepletanje je bilo najintenzivnejše v času vladavine Napoleona Bonaparta, torej na prelomu iz 18. v 19. stoletje. Francoska vojska je prodirala preko slovenskega ozemlja v letih 1797, 1805 in 1809. Leta 1809 ob koncu tako imenovane Avstrijske vojne med Avstrijskim cesarstvom in Združenim kraljestvom na eni in Francoskim cesarstvom ter Bavarsko na drugi strani Napoleon zmaga v odločilni bitki pri Wagramu (Callender, Bullocke 1963). Vojna se je končala s sklenitvijo schönbrunnskega miru in nastankom Ilirskih provinc. Te so zajemale ozemlje Goriške, Trsta, Istre, Kranjske, ozemlje južno ob Save med Kranjsko in Bosno, ozemlje Dalmacije, Boke Kotorske in Dubrovnika (Vodopivec 2006). Leta 1810 jim je bila priključena še vzhodna Tirolska, leto pozneje pa odvzeto nekaj ozemlja na račun (Napoleonove) Kraljevine Italije.

55.000 kvadratnih kilometrov veliko in razpotegnjeno ozemlje je bila povsem umetna in geostrateško zelo ranljiva tvorba. Vzpostavitev meja glede na naravnogeografske značilnosti, neodvisno od etnične sestave prebivalstva je kazala na to, da je bil vzrok nastanka provinc strateške narave (Šumrada 2006). Ilirske province so Franciji odpirale kopensko pot do Osmanskega cesarstva, omogočale nadzor obal Jadranskega morja, Avstriji zapirale poti do morja ter s tem izvajale učinkovitejšo trgovsko blokado Združenemu kraljestvu, ki je bil velik nasprotnik Napoleonove Francije in avstrijski zaveznik.

Zemljevid Ilirskih provinc iz leta 1812 z naslovom *Carte des Provinces Illyriennes comprenant la Bosnie, l'Herzégovine, le Monténéro et quelques pays adjacens* (v nadaljevanju: Zemljevid Ilirskih provinc) je nastal po naročilu prvega glavnega guvernerja Ilirskih provinc maršala Marmonta. Njen avtor je deloval v glavnem štabu francoske Dalmatinske in zatem Ilirske armade. Avtor in založnik zemljevida je vojaški kartograf Gaetan Palma, ki je bil nekaj časa v francoski službi in je zemljevid izdal v Trstu (Scott 2003). Isti avtor je leta 1811 izdal zemljevid evropske Turčije z originalnim naslovom *Carte de la plus Grande Partie de la Turquie d'Europe* (v nadaljevanju: Zemljevid evropske Turčije). Oba zemljevida prikazujeta jugovzhodno Evropo, vendar se močno razlikujeta. Zemljevid evropske Turčije prikazuje ozemlje od Trsta do obale egejske Turčije. Besedilo je napisano v francoskem, latinskem in grškem jeziku, zemljevid pa je manjši, v manjšem merilu in prikazuje večje ozemlje (Balkanski polotok) kot Zemljevid Ilirskih provinc, v katerega je avtor vključil novejšo in natančnejše podatke.

Slika 1: Naslov zemljevida z avtorjevim komentarjem.
Glej angleški del prispevka.

2 Zemljevid kot odsev političnega, družbenega in kartografskega stanja

V začetku 19. stoletja je prišlo do vzpona sodobne kartografije. Že pol stoletja prej pa začne pod vodstvom več rodov družine Cassini nastajati prvi topografski zemljevid Francije. Naredili so ga s pomočjo takrat naj sodobnejših tehničnih pripomočkov, na osnovi obsežnih in dolgotrajnih meritev ter z uporabo triangulacijske metode za določanje lege točk na terenu. Temu pionirskemu delu so postopoma sledila kartografska dela drugih držav. Na območju avstrijskega cesarstva (pred letom 1806 imenovanega Svetorimsko cesarstvo nemške narodnosti) se je sodobni način kartografskega prikaza s triangulacijo začel leta 1762. Zahodni del monarhije je bil kartografsko obdelan okoli leta 1830, med zajetimi območji pa je bilo tudi ozemlje današnje Slovenije, del celinske Hrvaške in Dalmacija (Macarol 1977). Med letoma 1763 in 1787 je bila v cesarstvu narejena prva sistematična vojaška topografska izmera, vendar zemljevidi, nastali na osnovi te izmere, nimajo točne geodetske podlage. Pa vendar jih zaradi velikega merila, natančnosti izdelave in gostote podatkov kljub kartografski popačenosti uvrščamo med najboljša kartografska dela druge polovice 18. stoletja. Izmera je posledica sedemletne vojne s Prusijo, ki je trajala med letoma 1756 in 1763. Izkazalo se je, da slaba kakovost zemljevidov in s tem posledično nepoznavanje terena lahko usodno vpliva tudi na potek vojne (Gábor in ostali 2009). Omeniti je potrebno, da so Francozi od leta 1806 naprej sistematično kartirali vzhodno obalo Jadranskega morja z otoki. Dela je vodil francoski hidrograf

Charles-François Beautemps-Beaupré, ki velja za ustanovitelja sodobne pomorske kartografije in hidrografije v Evropi (Kozličić 1995, Kozličić 2006).

Sedanje poznavanje zgodovinskih dogodkov 19. stoletja bi lahko dalo slutiti, da je bilo kratko obdobje obstoja Ilirskih provinc nepomembno in zgolj zapis za zgodovino Slovencev ter arhive, kar ne drži. Ilirske province so bile posledica širitve francoskega političnega in vojaškega vpliva proti vzhodu, ki je kljub kratkemu obdobju zapustil neizbrisen pečat na ozemlju današnje Slovenije. V mislih nimamo le sprememb v jezikovni, družbeni in politični zavesti Slovencev, temveč tudi način prikaza dela slovanskega ozemlja, združenega v enotno politično tvorbo. Pritegnila je francosko kartografijo, ki je s tem pomagala ohraniti zgodovinski spomin na Ilirske province. Starejši zemljevid ima kot zgodovinski dokument, ki razkriva politično in kulturno podobo obdobja, v katerem je nastal, dodatno sporočilno vrednost. Je rezultat dveh dejavnikov: izdelave in uporabe. Naročnik z željo in idejo ter izdelovalec s svojo stvaritvijo odsevata kulturne, politične in družbene razmere tistega časa. Uporabnik pa je skupek teh pričakovanj (Fridl, Urbanc 2006). Zemljevid lahko razumemo kot vrsto jezika, ki je namenjen določeni javnosti (Urbanc in ostali 2006; Kladnik in ostali 2006) Izraža tudi obliko znanja, ki ga je okolje, v katerem je nastal, imelo ter ga v kartografski obliki posredovalo (Urbanc in ostali 2006, Fridl, Urbanc 2008). Prav z izdelavo in sporočilno vrednostjo zemljevid Gaetana Palme prepriča. Kljub temu ima lahko bralec, zaradi enobarvnih kartografskih elementov ter njihove gostote, na nekaterih delih probleme pri branju zemljevida. Da bi se temu vsaj delno izognili, predvsem pa dobili jasnejšo sliko celotne politične in upravne razdelitve provinc, je leta 2004 dr. Milan Orožen Adamič s pomočjo dr. Janeza Šumrade in digitalni obliki dopolnil ta zemljevid. Originalni izvod je natisnjen v črno beli tehniki, zato je smiselno dopolnil nekatere kartografske elemente in s tem bralcu omogočil hitrejšo branje in razumevanje zemljevida. Na zemljevidu so poudarjene in prikazane osnovne upravne enote ter njihova središča. Dopolnitev je narejena tako, da z vnosom imen, krajevnih oznak ter barvno prosojnostjo meja ni zmanjšana berljivost kartografskega originala. Ker zemljevid prikazuje veliko območja zunaj meja Ilirskih provinc, je rdeče obarvana državna meja zelo dobrodošla. Z rumeno je označena meja med provincami znotraj ozemlja in meje polkov v hrvaški Vojni krajini. Modra črta (severno od Kanala ob Soči) prikazuje spremembo italijansko-ilirske meje po dekretu iz St. Clouda z dne 5. avgusta 1811, ki je nekoliko zmanjšala ozemlje provinc. Tudi na tem zemljevidu je Ljubljana, kot glavno mesto, napisana z večjim napisom vijolične barve, ostali kraji pa so navedeni v črni barvi. Vsi kraji, ki so dodatno navedeni, so napisani s krajevnim imenom, ki se uporablja sedaj, na primer Ljubljana (*Laybach*), Piran (*Pirano*), Karlovac (*Carlstadt*), Šibenik (*Sebenico*) in tako naprej. Z zelenim krogom je označeno glavno mesto provinc, z rdečim glavno mesto distrikta ter z rumenim sedež kantona.

3 Zemljevid kot izrazno sredstvo

3.1 Opis prikazanega območja

Zemljevid Ilirskih provinc Gaetana Palme je sestavljen iz štirih enako velikih listov, ki merijo po 46 × 62 centimetrov, celoten zemljevid pa meri 92 × 124 centimetrov. Vsi štirje listi oblikovno in vsebinsko delujejo kot celota. Le na spojih omenjenih listov se pri podrobnejšem pregledu zemljevida opazi delna neskladnost; čeprav se linije (meje, vodotoki) z zamikom ali brez njega nadaljujejo na sosednjem listu, so odstopanja opaznejša pri prikazu reliefa. Najbolj očitna razlika je vidna na spoju prvega lista z drugim in tretjim listom. Na prvem so skoraj vse površine črtkane, kar daje vtis, da ravnih površin skoraj ni. Zato deluje temnejši od ostalih treh listov. Ko črtkano »nižinsko« območje preide na drugi ali tretji list, le-to postane belo in brez oznak za naklon. Sklepamo lahko, da tiskarskih plošč zemljevida ni izdelal samo en graver. Vzroke za navedene razlike lahko iščemo tudi v različnih podatkih, ki so bile graverju na voljo, njegovi predstavi in natančnosti.

Dobra stran zemljevida je, da prikazuje tudi ozemlje zunaj meja Ilirskih provinc. Izjema je le severozahodni del (porečje zgornjega toka Drave od izvira do Beljaka), kjer se prikaz reliefa konča z mejo provinc. Na območju današnje Slovenije in južno od nje se kartografski prikaz iz ožjega obmejnega pasu v smeri proti jugovzhodu močno razširi. Na območjih Slavonije in Srema je relief označen le pri vzpetem svetu, na ostalih območjih zunaj meja provinc pa so označene predvsem pomembnejše poti in vodotoki.

Na prvem listu je prikazan severni del Ilirskih provinc. To je ozemlje današnje Vzhodne Tirolske, Avstrijske Koroške, vzhodne Italije, Slovenije in Hrvaške. Navedena so imena območij: Koroška (*Carinthie*, označena

z rimsko I), Istra (*Istrie, II*), Kranjska (*Carniole, III*), civilna Hrvaška (*Croatie Civile, IV*), Vojna Krajina (*La Croatie Militaire, VII*), ozemlje Hrvaške pod turško oblastjo (*Croatie Turque, VIII*). Označke 2–6 REG označujejo lego posameznih vojaških polkov v hrvaški Vojni krajini oziroma vojni Hrvaški. Zunaj meja provinc je tudi del Bosne do Sane.

Na drugem listu je prikazano območje Slavonije, Srema do Beograda, tok Donave vzhodno od Beograda do današnje meje z Romunijo ter severni del Bosne do Save in Drine. Na tem delu zemljevida je ozemlje Ilirskih provinc prikazano le zahodno od sotočja Save in Une. V zgornjem desnem robu so navedeni podatki o zemljevidu.

Na tretjem listu je prikazana srednja Dalmacija (*Dalmatie, V*) južno od otoka Lošinja do otokov Brača in Hvara, v notranjosti pa območje severno od gorskega grebena Velebita in Dinare. Označeno je tudi območje prvega krajišniškega polka (*1 REG*). Legenda je na spodnjem levem robu zemljevida.

Na četrtem listu je prikazano ozemlje južne Dalmacije, bivša Dubrovniška republika (*Province de Raguse, VI*), Bosna (*Bosnie, IX*), Hercegovina (*Herzegovine, X*) in Črna gora (*Montenero, XI*). Meja kartografskega prikaza teče po liniji: Drina–Goražde–Bijelo Polje–Skadar–Bojana. Vzhodno od te linije so prikazani le posamezni vodotoki in poti. Izstopa cesta od Goražda skozi Prijepolje, Novi Pazar, Prištino in naprej.

3.2 Pregled zemljevida

Poleg kartografskega prikaza ozemlja Ilirskih provinc in sosednjih območij sestavljata zemljevid še tako imenovani medokvirna in zunajokvirna vsebina, ki podrobneje predstavljata lastnosti zemljevida in razlagata posamezne kartografske elemente. Medokvirna vsebina vsebuje podatke o vrednosti koordinat, s katerimi določamo zemljepisno dolžino in širino izbranemu kraju na zemljevidu. Zunajokvirna vsebina zajema vse podatke zunaj okvira zemljevida. Na sodobnih zemljevidih je zunaj okvira navedenih veliko podatkov, ki služijo natančnemu tolmačenju zemljevida. Na zemljevidih manjšega merila, zlasti starejših, pa je zunajokvirna vsebina med kartografskim prikazom ozemlja in notranjim okvirom zemljevida. V našem primeru gre za dve območji na drugem in tretjem listu.

V desnem zgornjem kotu je narisana pokončna elipsa, v kateri so navedeni naslov, avtor, kraj in letnica izdaje ter podatki o možnosti nakupa zemljevida. Pod elipso je v sedmih polkrožnih vrsticah napisan avtorjev komentar o kakovosti zemljevida v primerjavi z ostalimi kartografskimi deli, ki prikazujejo ta del Evrope. Avtor sporoča, da je bilo po objavi njegovega Zemljevida evropske Turčije (ki smo ga omenili zgoraj in je izšel leto pred zemljevidom Ilirskih provinc) objavljenega veliko (kartografskega) gradiva, ki se nanaša na enako območje njegovega prikaza. Ugotavlja, da je v teh delih veliko napak, zato je predstavljal razliko med njegovim delom in ostalimi deli. Tako je leta 1812 naredil »*novo izdajo karte, ki bo vsebovala tudi nov material in v kateri bodo poti, ki jih je prepotoval ali pa so mu jih opisali popotniki, za katere ni nobenega dvoma glede resničnosti njihovih opazovanj, za razliko od drugih, označene z dogovorjenim znakom*« [iz francoščine prevedel Miha Pintarič]. Na tej novi karti iz leta 1812 je zbral tudi vse tiste podatke, ki so bili navedeni na ostalih novejših izdajah in so bili pomembni ter resnični. Iz opisanega lahko sklepamo, da se je Gaetan Palma zelo resno in odgovorno lotil izdelave obeh zemljevidov ter zlasti z Zemljevidom Ilirskih provinc žele bodočim bralcem priskrbeti sodobno, kakovostno in uporabno kartografsko delo.

Morda bi se v omenjeni podobi elipse lahko iskala alegorična upodobitev jajca v gnezdu. Kaj bi bil vzrok za to, lahko le ugibamo. Na starejših zemljevidih so bili namreč dekorativni dodatki sestavni del zemljevida, območje navedbe podatkov pa pogosto prostor umetniškega izražanja. Vendar so ob koncu 18. stoletja, izraziteje pa v 19. stoletju te dodatke, ki so za kartografski prikaz sicer nepomembni, postopoma opuščali oziroma jih zemljevidom dodajali v zelo omejenem obsegu.

Pod omenjenimi podatki je merilo zemljevida, ki je prikazano s šestimi enako dolgimi pasovi, ločenimi za vsako mersko enoto.

V legendi, ki leži v levem spodnjem delu v obliki pravokotnika, so pojasnjena različna kartografska izrazna sredstva za kraje, ceste, meje in pošto. V desnem pravokotniku so navedena imena treh delov Ilirskih provinc: civilni (*Provinces Civiles*), vojaški (*Province Militaire*) in turški (*Provinces Turques*). Vsi deli so poimensko razčlenjeni na manjše ozemeljske enote oziroma province, označene z rimskimi številkami. Pod legendo je avtor dodal komentar o vrisanih prometnicah na območju zasedenih turških ozemelj: »*Glavne povezave med turškimi provincami so načrtane na podlagi novih materialov, ki še niso bili objavljeni na nobeni karti*« [iz francoščine prevedel Miha Pintarič]. Poleg ozemlja Ilirskih provinc, prikazuje zemljevid na vzhodu tudi ozemlje današnje Bosne in Hercegovine, Črne Gore ter nekaj pomembnejši poti

in vzpetin v Srbiji in na Kosovu. Torej ozemlja, ki so bila v začetku 19. stoletja še pod Turškim cesarstvom in zato slabše poznana. Avtor je tako kot v komentarju pod naslovom tudi tukaj opozoril na najnovejše vrisane podatke, ki jih je bilo v tistem času možno dobiti.

V obeh podatkovnih delih so podatki navedeni v francoskem jeziku. Krajevna imena so napisana pretežno v italijanskem jeziku, ponekod so poitaljanjena, nekatera pa so navedena v lokalnem jeziku (nemškem ali enem od slovanskih jezikov).

Slika 2: Izsek iz Zemljevida Ilirskih provinc.
Glej angleški del prispevka.

3.3 Opis kartografskih elementov

Zemljevid se lahko enači z ostalimi zemljevidi tistega časa, glede na prikaz posameznih kartografskih elementov pa jih v marsičem presega. V začetku 19. stoletja je veliko avtorjev uporabljalo starejše ter enostavnejše tehnike prikazovanja. Zelo kakovosten, vendar ne izjemen, je zemljevid Ilirskih provinc pri upodobitvi reliefa. Prva polovica 19. stoletja je obdobje prehoda iz stilizacijske na plastično metodo prikaza razgibanosti površja. Za prvo metodo so bile v 18. stoletju značilne preproste oblike tako imenovanih krtin različnih višin in oblik, ki so jih avtorji najpogosteje senčili s črticami na vzhodni strani vzpetin. Pri plastični ali prostorski metodi se občutek trirazsežnosti prikaže s pomočjo barvnih odtenkov ter črtic in pik. Za prvo polovico 19. stoletja je značilen razvoj metode črtkanja, ki jo je znanstveno utemeljil saški major Johann Georg Lehmann leta 1799. Osnova metode so črtice različnih dolžin in debelin, ki so narisane v smeri zniževanja površja. Dolžina in debelina črtic izraža naklon površja, njihova lega in razporeditev pa prikaže reliefne oblike (Perko 2001).

Pregled ducata naključno izbranih zemljevidov iz zbirke Zemljepisnega muzeja GIAM ZRC SAZU ter Narodne in univerzitetne knjižnice v Ljubljani, ki delno ali v celoti prikazujejo ozemlje Ilirskih provinc in so nastali med letom 1778 in 1836, pokaže značilnost obdobja, v katerem je nastal naš zemljevid. Za upodobitev reliefa sta uporabljeni obe metodi ločeno ali skupaj. Relief je prikazan s senčenimi krtinami različnih velikosti in oblik, kombinacijo krtin in črtic, preprostimi in podrobnejšimi črtkanimi reliefnimi oblikami ter z Lehmanovo metodo črtic. Zemljevidi kartografa Josepha Karla Kindermanna (na primer *Charte von Kaernten und Krain, nebst den Grafschaften Görz und Gradiska und dem Gebiete von Triest*) iz prvega desetletja 19. stoletja prikazujejo relief v poenostavljeni obliki ovitih ali ravnih gosenic, ki jih sestavlja različna gostota črtic (Gašperič 2007). Zemljevid Ilirskih provinc (*General Charte der Illyrischen Provinz*) poštnega uradnika Ignazia Heymanna iz leta 1810 je primer kartografskega dela, ki zaradi kombinacije krtin in črtic navduši s plastičnostjo prikaza reliefa. Leta 1832 je izšel zemljevid Vojvodine Kranjske (*Karte vom Herzogthume Krain*) vojaškega zemljemerca Gottfrieda Loschana, ki uporablja Lehmannovo metodo črtkanja reliefa.

Slika 3: Legenda Zemljevida Ilirskih provinc.
Glej angleški del prispevka.

Na Palmovem Zemljevidu Ilirskih provinc je relief zelo plastično prikazan z različnimi dolžinami, širinami ter lego črtic. Ne gre še za pravo Lehmannovo metodo črtkanja, je pa njen zelo dober približek. Za Lehmannovo metodo je med drugim značilno, da so črtice glede na naklon terena različno odebeljene in neprekinjene. Na tem zemljevidu so črtice različnih debelin v liniji in ločene, ponekod se spremenijo v zelo kratke in odebeljene črtice ter pike.

Nekateri kartografski elementi so razčlenjeni in razloženi v legendi. Poti se delijo v tri skupine. Glavne ceste (*Grande Route*) so označene z dvema vzporednima črtama; njihova širina je verjetno zagotavljala možnost srečanja dveh vozov. Kolovozne (*Chemin Carrossable*) so označene s črto in vzporedno linijo pik. Pešpoti (*Chemin pur les Pietons et Chevaux*) so označene le s črto; primerne so bile za pešce, tovarne živali in jezdece. Velik pomen poti izražajo prometne povezave, ki so na zemljevidu narisane tudi zunaj območja provinc, kjer na primer relief ni prikazan. Kraji so glede na velikost in pomembnost prikazani v štirih kategorijah. Označeni so z različno pisavo in s krogi, v katerih leži večja ali manjša črna pika. Glavno mesto (*VILLE CAPITALE*) je označeno z največjim krogom in piko ter napisano z velikimi tiskanimi črkami. Ljubljana (*LAYBACH*) je bila prestolnica Ilirskih provinc, zato je edino mesto s to oznako. Glavno mesto

posamezne province (*CHEF-LIEU de Province*) je prikazano z nekoliko manjšim krogom s piko. Ker sta znaka skoraj enako velika, se od glavnega mesta okraja (*Chef-Lieu de District*) loči predvsem po pisavi. Glavno mesto province je napisano z velikimi tiskanimi črkami, glavno mesto okraja pa z malimi črkami. Najmanjša naselja, kot so trgi (*Bourg*) ali vasi (*Village*), so označena z majhnim praznim krožcem. Če gre pot skozi kraj, je krog na zemljevidu označen kot vezni člen med dvema linijama in ga nikoli ne seka. Do krajev, ki so odmaknjeni od pomembnejših poti, le-te niso označene. Poleg omenjenih oznak, pa se na zemljevidu pojavljajo tudi štiri-, pet- ali šestkotniki, ki označujejo posamezna (utrjena) naselja.

Meje so glede na upravno razdelitev prikazane na dva načina. Zunanjo mejo Ilirskih provinc oziroma državno mejo (*Limite d'Etat*) ponazarja linija križcev. Označena je povsod tam, kjer ne poteka po rekah (Sava, Una) in morju. Meje posameznih provinc (*Limite de Province*) so označene z linijo pik.

V legendi so razložene tudi oznake za poštno razdalje oziroma označene poti, po katerih je pošta potovala. Kraji, v katerih je bila poštna postaja (*Relai de Poste*) so označeni s poštnim rogom. Poštna razdalja (*Une Poste*) je pomenila pot med dvema poštnima postajama in je merila približno 15 kilometrov oziroma dve avstrijski miljji (Juriševič 1981). Ena avstrijska poštna milja je znašala 7.585,9 metra. Razdalja je pomenila normativ za menjavo konj, tehnično pomoč, počitek, obračun in ostalo. Zaradi različne zahtevnosti poti (relief, stanje poti) so se razdalje med poštnimi postajama tudi razlikovale. Glede na enoto ene poštno razdalje je bila cesta označena z različno dolžino in številom pravokotno ležečih črtic na cestni liniji. Prečna črtica, ki je merila 3 milimetre, je označevala eno poštno razdaljo. Dve sekajoči črtici sta pomenili dve poštni razdalji, polovična črtica (*Demi Poste*) pol poštno razdalje, pika nad cesto pa četrtino te razdalje (*Quart de Poste*).

Na zemljevidu rastje ni označeno, narisana pa so mokrišča (na primer med Oglejem in Benetkami). Rečna mreža prikazuje večje in manjše vodotoke, ki pa se zaradi podobnosti prikaza z oznako za pešpoti pogosto zamenjuje in otežuje branje zemljevida. Ponekod so bralec v pomoč navedena imena vodotokov.

Zemljevid ima narisano merilo in kartografsko projekcijo, ki sodita med matematične elemente karte. Merilo zemljevida je grafično ali linearno in leži na desnem zgornjem delu pod naslovom in avtorjevim komentarjem. Sestavlja ga šest enako dolgih pasov, ločeno za vsako mersko enoto. Velikost merske enote milje, kilometri in drugo) določa razmik med črtkanim in praznim razdelkom ter številčnimi oznakami na pasovih oziroma pod njimi.

Pri določanju številčnega merila (razmerje med eno enoto in tej enoti ustrezno razdaljo v naravi) smo uporabili tri načine. Izmerili smo deset poljubno izbranih smeri in razdalj, določili njihovo dolžino ter jih primerjali z enakimi razdaljami na sodobnem zemljevidu. Zaradi možnosti napak na zemljevidu, zamikov na stičiščih vseh štirih delov zemljevida ter napak pri merjenju smo dobili le orientacijski podatek. Zato smo vzeli podatke iz zadnjega grafičnega prikaza merila, ki sporoča, da je 110 kilometrov v naravi enako 172 milimetrom na zemljevidu. Zaradi podaljška na začetku merilnega pasu, ki ni upoštevan pri končni vrednosti, je treba prišteti še približno 2,5 kilometra. Torej, 172 milimetrov ustreza 112,5 kilometrom.

Gre torej za merilo 1 : 654.070. Ker so pri vseh šestih prikazih merila pasovi enako dolgi, smo s pomočjo podatkov metrskega merila izračunali vrednosti ostalih enot in dobili enak rezultat. V potrditev ali zavrnitev izračunanega smo poiskali podatke za navedene merske enote. V literaturi in medmrežju se vrednosti nekoliko razlikujejo, vendar ni velikih odstopanj. Za italijansko miljo smo vzeli vrednost 1.837 metrov (1 : 640.814), za nemško miljo 7.412,7 metra (1 : 646.456), za staro francosko mersko enoto *lieue commune* pa 4.452,2 metra (1 : 647.122) (medmrežje 1, 2, 3). Sklenemo lahko, da je merilo našega zemljevida približno 1 : 650.000.

Slika 4: Grafično merilo Zemljevida Ilirskih provinc.
Glej angleški del prispevka.

Na zemljevidih iz začetka 19. stoletja je redko narisana projekcija, še redkeje pa je tudi imenovana ali opisana. Na našem zemljevidu je mreža poldnevnikov in vzporednikov lepo vidna. Tako lahko ugotovimo, da Ljubljana leži približno na 46° 3' severne geografske širine in 32° 14' vzhodne geografske dolžine. Geografska širina je enaka današnji, geografska dolžina pa se razlikuje, saj znaša sedaj približno 14° 30'.

Vzrok različnih stopinj (°) geografske dolžine je v začetnem poldnevniku. V zgodovini se je njegova lega spreminjala glede na odločitev posamezne države, leta 1884 pa je bil na mednarodnem geodetskem kongresu v Washingtonu sprejet enoten začetni poldnevnik, ki gre skozi zvezdarno v Greenwicu vzhodno od Londona (Fridl 2005). Na zemljevidu Ilirskih provinc gre izhodiščni poldnevnik čez otok Ferro

(današnji Hierro), najjužnejši in najzahodnejši otok Kanarskega otočja. Leži 18° zahodno glede na Greenwich, kar je tudi stopinjska razlika med koordinatama Ljubljane. Razlika v minutah (') pa je posledica manjše natančnosti zemljevida in s tem povezanih napak ter težje določljivosti koordinat. Pri natančnejšem pregledu zemljevida ugotovimo, da je prikazano ozemlje ponekod preveč razvlečeno glede na stopinjsko mrežo. Razpotegnjenost je zelo opazna pri obalnem pasu. Zahodno od poldnevnikar, ki označuje 16° vzhodne geografske dolžine, se netočnosti prikaza povečujejo. Zadar (Zara) leži v pasu 14° vzhodne geografske dolžine (pravilne koordinate so 15° 13'), polotok Istra in večji del vzhodno ležečega otoka Cres ležita v pasu 13° (v resnici je že vzhodna tretjina polotoka Istra v pasu 14°). Lega obalnega ozemlja, ki leži vzhodno od 16°, je glede na vrisano stopinjsko mrežo pravilnejša. Na celini so odstopanja različna, od nekaj minut (na primer Beljak (Willach)) do približno pol stopinje (na primer Sarajevo (Seraglio)).

Poldnevnikar so ravne črte, ki se žarkasto stekajo iz namišljene točke nad zemljevidom, vzporedniki pa tvorijo med seboj enako oddaljene vzporedne loke. Na podlagi opisanih lastnosti predvidevamo, da gre za eno od stožčnih projekcij. Zanje je med drugim značilna pogosta uporaba v srednjih geografskih širinah (Lovrenčak 1996).

4 Sklep

Zemljevid Ilirskih provinc je delo danes skorajda nepoznanega avtorja Gaetana Palme. Sodi med najbolj kakovostne kartografske izdelke časa, v katerem je nastal. Razmeroma veliko merilo in za tisti čas zelo kakovosten kartografski prikaz reliefa ter razčlenitev nekaterih kartografskih elementov so glavne odlike zemljevida. Če upoštevamo, da je nastal pod vplivom takrat zmagovite Francije, ki je bila ena od političnih in kartografskih velesil tistega časa, ter dejstvo, da je upodobljeno območje Francozom znanega, ne pa podrobno preučenegega ozemlja, si zemljevid zasluži pomembno mesto med kartografskimi upodobitvami tega dela Evrope. To je celostna upodobitev Ilirskih provinc, ki je bila izdelana za povsem praktičen in vsakdanji namen. Tako naj bi pomagala bolj poznati in vsestransko razumeti prikazano območje.

5 Literatura

Glej angleški del prispevka.