The colour sequence and naturalness: a case study of Slovenian toponyms

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Abstract

Slovenian toponyms contain various semantic elements, among which are colour terms. Berlin and Kay's sequence of colour terms is used to explore the presence of these in Slovenian toponyms in combination with the concept of linguistic naturalness. Drawing on data from *Veliki atlas Slovenije* (*The Great Atlas of Slovenia*), it is found that standard colour terms imperfectly match the sequence. However, when additional colour terms and the metaphorical term *krvav* 'blood(y)' for 'red' are taken into consideration, the data closely approximate Berlin and Kay's sequence. Following some comments on linguistic motivations for colour terms, the study offers suggestions for further research.

Keywords: colour terms, Slovenian, toponyms, naturalness, etymology

Zaporedje izrazov za barve in jezikovna naravnost: študija primera slovenskih toponimov

Slovenski toponimi vsebujejo različne semantične prvine, med katerimi so tudi izrazi za barve. Avtor v članku na podlagi zaporedja barvnega izraza, ki sta ga uvedla Berlin in Kay (1969), in pojma jezikovne naravnosti proučuje prisotnost teh izrazov v slovenskih toponimih. Na podlagi podatkov iz *Velikega atlasa Slovenije* ugotavlja, da se pogostost osnovnih izrazov za barve v slovenskih toponimih z zaporedjem Berlina in Kaya ne ujema v celoti. Ob upoštevanju dodatnih poimenovanj barv in metaforičnih izrazov, kot je *krvav*, pa se podatki temu zaporedju precej približajo. Avtor obravnava tudi jezikovno motivacijo tovrstnega izrazja in na koncu predstavi možnosti za nadaljnje raziskave.

Ključne besede: izrazi za barve, slovenščina, toponimi, jezikovna naravnost, etimologija

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1   Introduction

Toponyms offer a fascinating insight into the culture and history of Slovenia, and into the perspective of those that named various settlements and natural features. The distinctive namescape of Slovenian includes references to age (*Novo mesto*, literally 'New Town'), aesthetics (*Grda jama* 'Ugly Cave'), animals (*Volčji vrh* 'Wolf Peak'), ethnicity (*Nemški Rovt*, literally 'German Meadow'), plants (*Hrastov grič* 'Oak Hill'), position (*Srednja vas*, literally 'Middle Village'), saints (*Šentviška planota* 'Saint Vitus Plateau'), shape (*Debeli hrib* 'Fat Hill'), size *Mali potok* 'Little Creek'), and temperature (*Mrzli studenec* 'Cold Spring'). Any of these would offer a rich arena for analysis. Beyond etymology, understanding of the semantic bases of toponyms can also be of help when glossing or translating them for purposes from ethnology to tourism (Diaci 2023). Many Slovenian toponyms also contain colour terms (*Črna vas*, literally 'Black Village').

Previous studies have examined colour terms in various languages, such as Australian English (Tent & Blair 2011), Bashkir (Khisamitdinova et al. 2019), Estonian (Rätsep 2012), Kyrgyz (Koichubaev 1965), Mongolian (Purev et al. 2023), Old English (Hough 2006), and Turkic (Pangereyev et al. 2023). Nonetheless, onomastics has neglected a broader perspective on colour terms in toponymy, as such studies tend to focus on etymology and typological patterns, and many are limited to one colour, leaving open the question of similarity in colour terms in toponyms across languages (Purev et al. 2023, 141–42).

This article examines colour terms in Slovenian toponyms. It proceeds from Berlin and Kay's (1969) sequence of colour terms coupled with Janez Orešnik's theory of Natural Syntax, hypothesizing that more basic colour terms are more frequent in toponyms.

2   Berlin and Kay's basic colour terms

In 1969, Berlin and Kay published *Basic Colour Terms: Their Universality and Evolution*, proposing that languages have various stages of complexity in their inventory of colour terms, from a rudimentary black/white (dark/light) distinction to more complex stages with eight or more terms. The theory suggested a sequence of basic colour terms, essentially: black/white > red > green/yellow > blue > brown > purple/pink/orange/grey.

Although Berlin and Kay's work had precursors (Kay 2015), their study was a catalyst for further colour research. This body of literature not only investigates colour inventories in a range of languages, but also supports, rebuts, and revises the conclusions of the initial study (Kay 2015). Although some languages deviate from this sequence through megacategories that combine colour terms, or by subdividing some of these, the sequence is widely enshrined in linguistics (Hardin 2023). Among the linguistic domains that the sequence has been applied to is toponomy, the focus of this study.

3   Naturalness

This study assumes that Berlin and Kay's sequence of basic colour terms is a natural sequence in the sense of naturalness as defined by Wolfgang Dressler: "a synonym of intuitively plausible or of cross-linguistically frequent" (2000, 288). Thus, one expects words such as *white* and *black* to be more frequent in a large corpus regardless of context, and words such as *pink*, *purple*, and *orange* less frequent. In fact, a Google Books Ngram for colours (Figure 1) mirrors Berlin and Kay's sequence well.
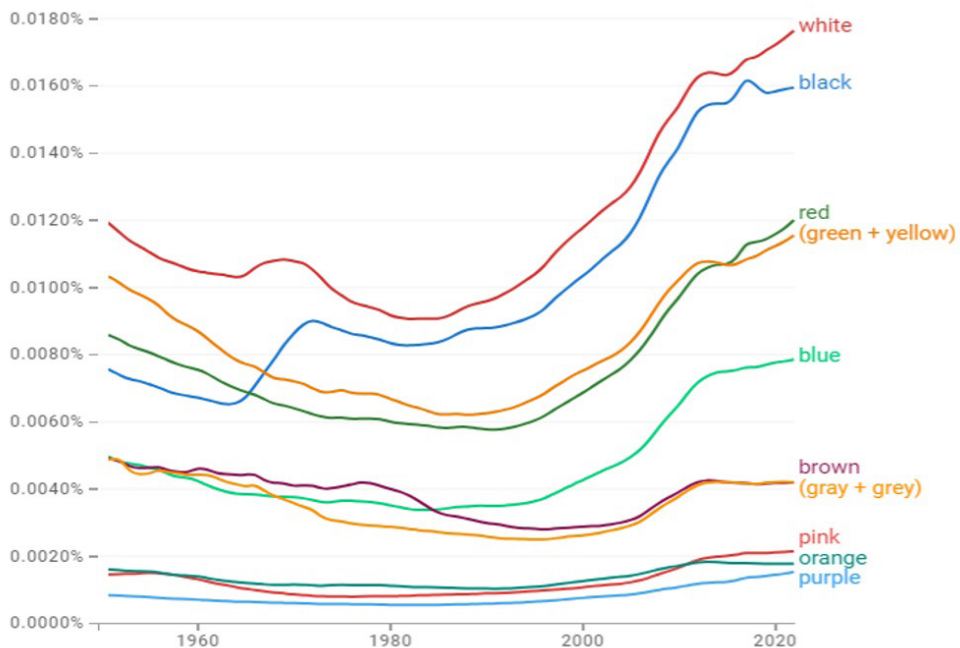

Figure 1. Google Books Ngram results (truncated) for "black, white, red, green + yellow, blue, brown, purple, pink, orange, gray + grey" (corpus: English).

Applying this natural sequence to Slovenian toponyms, it is hypothesized that toponyms containing more fundamental colour terms (e.g., 'white' and 'black') are more common than those containing colour terms in more advanced stages of the inventory.

In Slovenian linguistics, naturalness was explored by the late Janez Orešnik (1935–2024) in his theory of Natural Syntax based on the work of Dressler and Mayrhofer. Orešnik couched his observations in naturalness scales and rules of alignment that always contrasted two variants (Cvetko Orešnik & Orešnik 2011, 19). Orešnik might have formulated the premise of this study – that more basic colour terms are better represented in toponyms than less basic colour terms – as follows:

1.   The assumptions of Natural Syntax:
1.1. >nat (more basic, less basic) / colour terms in toponyms
     I.e., within toponyms, more basic colour terms are more natural than less basic colour terms, according to the frequency criterion …
2.   The rules of parallel alignment:
2.1. value A tends to associate with value C,
2.2. value B tends to associate with value D.

4   Data

The data for this study are drawn from *Veliki atlas Slovenije* (*The Great Atlas of Slovenia*; Bogataj et al. 2012). Excluding names of streets and squares, this includes over 41,000 toponyms covering Slovenia and parts of adjacent countries. The sample considered here is mostly limited to the names of settlements (and parts thereof), hydronyms, and oronyms (about 26,000 names). The 1:50,000 atlas is far from an exhaustive inventory of Slovenian toponyms. Nonetheless, the sample is large enough to be representative. In the sample, 1.4% of names contain standard and additional colour terms. This is roughly equivalent to the percentage of Russian toponyms with colour terms, reported as 1.0% (Molchanova 1989, 27).

Dialect names for colours can differ from those in standard Slovenian. For example, Resian Slovenian has *čarnjḗl* 'red', *blȗ* 'blue', *rȗs* 'yellow', and *grȋžast* 'grey' (Steenwijk 1992) rather than (cognates with) the standard Slovenian *rdeč*, *moder*, *rumen*, and *siv*. See also comments below on the Slovenian dialect *rjav* as 'red' and *riďavi* 'brown'.

Cross-border Slovenian toponyms included in the atlas are considered because they are part of the Slovenian onomastic world. In addition to those examined here,

works with additional information include Merkù's *Slovenska krajevna imena v Italiji* (1999) and the 1:25,000 map series *Carta topografica per escursionisti* (e.g., Canìn 2019) for Italy, and Kattnig and Zerzer's *Dvojezična Koroška* (1982) for Austria.

5   Standard colour terms

The relevant colour terms in standard Slovenian are *črn* 'black', *bel* 'white', *rdeč* 'red', *zelen* 'green', *rumen* 'yellow', *moder* 'blue', *rjav* 'brown', *vijoličen* 'purple', *roza* 'pink', *oranžen* 'orange', and *siv* 'grey'. Among these, three of the last four betray more recent origins: *vijoličen* 'purple' derives from the noun *vijolica* 'violet', attested in the seventeenth century; *oranžen* 'orange' is a twentieth-century derivation from French *orange*; and *roza*, a twentieth-century borrowing from German or Italian, is indeclinable and lacks adjectival morphology (ESSJ 2, 214; Snoj 2003, 476, 631, 820). The remaining adjectives have much older Slavic pedigrees.

Among the toponyms containing colour terms, 42% have *črn* 'black' or a derivation from it, and 41% have *bel* 'white' or a derivation from it. Toponyms based on *bel* 'white' also include the spelling variant *bev* (e.g., *Bevke*; Snoj 2009, 58). Examples include settlements such as *Črnica* (Cernizza, Italy) and *Belica*, oronyms such as *Črni vrh* 'Black Peak' and *Beli vrh* 'White Peak', and hydronyms such as *Črni potok* 'Black Creek' and *Beli potok* 'White Creek'.

In contrast to 'black' and 'white', only a few toponyms contain *rdeč* 'red'. Among these are the village of *Rdeči Breg* (literally, 'Red Bank'), *Rdeči rob* 'Red Rim', and *Rdeči potok* 'Red Creek'.

The only toponym that initially suggests a possible connection with *rumen* 'yellow' is the village of *Rumanja Vas* (Slovenian *Rumanja vas*, earlier *Romanja vas*; Krajevni 1937, 540). However, the oldest attestation, from 1424, records this name as *Růdmansdarff* (Historična 2021, 1241), largely preserved in the twentieth-century German name *Rumannsdorf* (Leksikon 1906, 160). The name is therefore not connected with yellow (nor related to the Romans, as sometimes suggested; cf. Kos 1939, 228).

The settlement of *Modrej* is believed to ultimately derive from *moder* 'blue', probably through an anthroponym (perhaps as a nickname for an individual with cyanosis), as are two settlements named *Modrič* as well as *Modruša*, a hamlet of Zalog pri Škocjanu (Snoj 2009, 266). Beyond Slovenia's borders, *Modrinja vas* (Möderndorf, Austria) is also based on 'blue'. To these can be added the village of *Modrejce* (a derivative from *Modrej*) and probably the village of *Modraže*.

No oronyms are based on *moder* 'blue'. The root *modras-* (also found in the common noun *modras* 'horned viper', *Vipers ammodytes*) is seen in the toponyms *Veliki Modrasovec* 'Big Mount Modrasovec' and *Mali Modrasovec* 'Little Mount Modrasovec', among others, but it is not derived from *moder* 'blue', as once posited (cf. Miklosich 1862–1865, 378), but instead from Istro-Romanian *madraso* 'grass snake' (*Natrix natrix*; ESSJ 2, 191). The hydronym *Modriški potok* 'Modrič Creek' is ultimately based on blue because it is derived from the village of Modrič, cited above.

Slovenian has several names based on *rjav* 'brown'. These include the village of *Rjavec* (Reauz, Austria), *Rjavi hrib* 'Brown Hill' and *Rjavi vrh* 'Brown Peak', and *Rjavo jezero* 'Brown Lake' (or *Rjava mlaka* 'Brown Pond', one of the Triglav Lakes). Toponyms based on *rjav* 'brown' also include the spelling variant *erjav* (e.g., *Erjavec* Creek).

Slovenian has no toponyms with 'purple', 'pink', or 'orange', but there are several that use *siv* 'grey'. These include *Pri Sivcih* (a hamlet of Krn), Mount *Sivka* and two nearby elevations (*Loncmanova Sivka* 'Loncman Sivka Hill' and *Trepalova Sivka* 'Trepal Sivka Hill', both named after farms), *Sivo rebro* 'Grey Ridge' in Moste, and *Sivo brdo* 'Grey Hill', a slope in Magozd.

Figure 2 shows the initial results. Toponyms containing standard colour terms show a rough correspondence to Berlin and Kay's sequence, with red underrepresented and brown overrepresented.
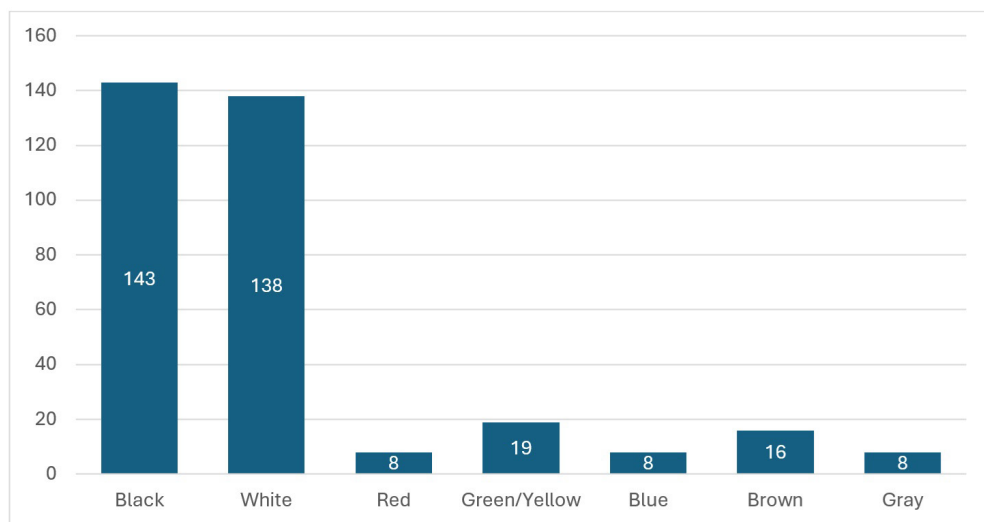

Figure 2. Slovenian toponyms containing standard colour terms.

6   Additional colour terms

In addition to the standard colour terms in Slovenian, there are various other regional, dialect, dated, and archaic words for colours. The basic light–dark (white–black) contrast can also be represented by the corresponding adjectives *svetel* 'light' and *temen* 'dark'. Examples include the villages of *Svetli Dol* (cf. German *Lichtenthal*; Franciscan 1825) and *Svetli Potok* (cf. German *Lichtenbach*), and *Svetje* (a neighbourhood of Medvode), as well as the village of *Temnica*, *Temni vrh* 'Dark Peak' (in Kamnik pod Krimom), *Temno brdo* 'Dark Hill' (in Sela nad Podmelcem), *Temni žleb* 'Dark Creek' (in Plužna), and *Temnek* (in Sela nad Podmelcem; cf. ESSJ 4, 165) – but not *Temenica* (a village and various streams), derived from *teme* 'top of the head; summit, apex' (ESSJ 4, 166).

The adjective *šar* 'coloured, colourful', representing black, is attested in anthroponyms, but not obviously in any of the toponyms considered (ESSJ 4, 9). The root *mavr-* 'dark, black' is found in *Mavrevov vrh* 'Mavrev Peak', named after the nearby Mavrev farm. The related adjective *mur* 'black' (Pleteršnik 1894–1895) is found in the *Mura* River and possibly *Murica* Creek (see Snoj 2009, 274–275), as well as various toponyms derived from the river name: the Austrian town of *Mureck* (Slovenian *Cmurek*) and *Murski Črnci* (both elements of which refer to black). However, some similar toponyms are also based on the common noun *murava* 'soft grass' and are unrelated to colour.

Complicating matters, Snoj (2009, 101) points out that *črn* is sometimes derived from Proto-Slavic **čъrmьnъ* 'red'. For example, the oronym *Črna prst* (presumably 'black soil', referring to shale, and tallied as such) may originally mean 'red soil' (see also *Černova*/*Črnava* Creek below).

The Slovenian adjective *črmljen* (also *črljen*, *črmnel*, *črnel*, *črnjel*, as well as Resian *čarnję̀l*; see Steenwijk 1992, 246) 'red' derives from Proto-Slavic **čъrvenъ* 'red' (ESSJ 1, 88). Related toponyms include the villages of *Malo Črnelo* and *Veliko Črnelo* (cf. medieval German *Rottenpach*; Snoj 2009, 98), *Črnelo* Castle (cf. medieval German *Rottenpvhel*; Snoj 2009, 98), the village of *Černelavci* (via an anthroponym; Snoj 2009, 98), the village of *Črmljenšak*, *Črmlja* Creek, *Črmla* Creek, and *Černova* Creek, and of course *Črnelo* Creek (Slovenian *Črnelski potok*). Names of creeks connected with 'red' are probably motivated by reddish loam in their banks or waters (Snoj 2009, 101). Černova Creek is also known as *Črnava*, underlining the overlap between *črn-* as etymologically 'black' or 'red'.

Slovenian also has the dated term *žolt* (also *želt*, and dialect *žut*) for 'yellow'. However, with the possible exception of the *Žutač* farm in Mali Okič, no toponyms seem connected with this term.

In addition to *moder* 'blue', Slovenian also has *plav*, from Bavarian German *plau* 'blue' (ESSJ 3, 50–51), and *sinji* '(light) blue' or sometimes 'grey' (cf. Pleteršnik 1894–1895). The settlement name *Plave* and the hydronyms *Plava* and *Plavja* derive from *plavati* 'swim' and are unrelated to blue. The name *Plavž* (a neighbourhood of Jesenice) derives from Bavarian Middle High German *plahus* 'blast furnace' (ESSJ 3, 51), as are probably similar names, such as the hill *Plav(š)čak* and the stream *Plavžnica*. Several toponyms contain *sinji*: the villages of *Sinja Gorica* and *Sinji Vrh*, as well as *Breg pri Sinjem Vrhu* and *Draga pri Sinjem Vrhu* (with differential epithets added in the 1950s; Zakon 1955, 504). However, none of these in fact originally contain *sinji*, and they are likely modifications of names with *svinji* 'pig', referring to grazing pigs (Snoj 2009, 376). The names were probably modified to avoid associations with animals considered unclean. Similarly, the neighbourhood of *Sinja Gorica* (literally, 'Blue Hill') in Cerknica appears in the Franciscan Cadaster as *Svinia Goritza* (i.e., 'Pig Hill'; Franciscan 1823). Similarly, *Sinji vrh* – ostensibly 'Blue Peak' – in Kovk appears as *Svinji vrh* (i.e., 'Pig Peak') in older sources (Deschmann 1866, 41).

The term *prun* 'blue' is borrowed from Old High German *prun* 'purplish' and is attested in the Gail Valley and Carinthia (ESSJ 3, 132). It does not seem to appear in any toponyms.
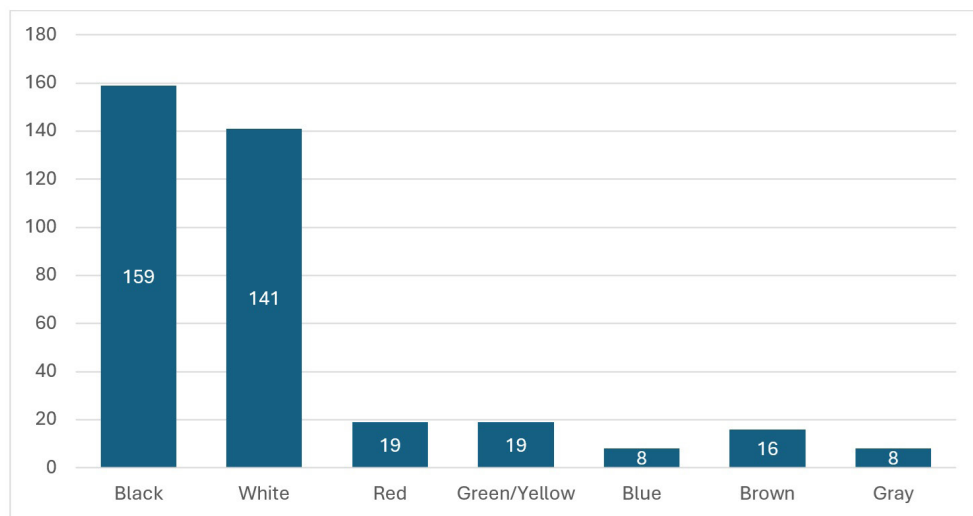

Figure 3. Slovenian toponyms containing standard and additional colour terms.

There is thus no convincing evidence that any Slovenian toponyms authentically contain *plav* 'blue', *sinji* '(light) blue', or *prun* 'blue'. Nor were any additional toponyms identified with terms for 'brown', 'purple', 'pink',[1] 'orange', or 'grey'.

With the additional colour terms, the distribution in Slovenian toponyms conforms better to Berlin and Kay's sequence (Figure 3). Red is still relatively weakly represented, and brown remains overrepresented.

7   Metaphorical colour terms and further considerations

In addition to basic colour terms (whether standard or additional), some Slovenian toponyms contain elements that may metaphorically serve as colour terms. Examples include:

- *sajav* 'sooty' for black, such as the village of *Sajevec*, literally 'Sooty (Creek)' (cf. Middle High German *Růzpach*; Bizjak et al. 2021, 1246);
- *krvav* 'blood(y)' for red, such as the village of *Krvava Peč*, literally 'Bloody Cliff';
- *zlat* 'gold' for yellow, such as the village of *Zlato Polje*, literally 'Golden Field';
- *višnjev* 'sour cherry' for (violet-)blue (cf. Pleteršnik 1894–1895), such as the town of *Višnja Gora*, literally 'Sour Cherry Mountain';
- *sliv* 'plum' for blue (cf. Pleteršnik 1894–1895), such as the village of *Slivno*, literally 'Plum (Village)';
- *srebrn* 'silver' for grey, such as *Srebrni grič* 'Silver Hill', in Gorenje.

Despite their colour associations, these are not among the toponyms tallied above because they primarily name objects, not colours. As Berlin and Kay point out, "Colour terms that are also the name of an object characteristically having that colour are suspect, for example, *gold*, *silver*, and *ash*" (1969, 6).

Nonetheless, red demands several considerations. First, blood is so synonymous with red that it has provided this colour term in several languages (cf. Hungarian *vörös* 'red' < *vér* 'blood' and related Finno-Ugric words; Uusküla 2011). In the Semitic languages too, red and blood are related; compare Hebrew אָדֹם (*'adóm*) 'red' and דָּם (*dam*) 'blood' (Murtonen 1989, 83). Kouwer (1949, 15) cites the Sanskrit noun रुधिर (*rudhira*) 'blood' – secondary to the adjective रुधिर (*rudhira*) 'red; bloody' (Mayrhofer 1996, 453–454) – to underline the close association between 'red' and

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1   An alternative Slovenian adjective for pink, *rožnat*, does not appear in any toponyms. However, note *Rožnati Britof* 'Pink Britof', as the village of Britof was informally dubbed when the Britof resident and cyclist Jan Polanc wore the leader's pink jersey in the 2019 Giro d'Italia (Jan 2019).

'blood'. All Slovenian toponyms with *krvav* 'blood(y)' probably refer to red stone, red soil, and so on (cf. Čop 2007, 123; Snoj 2009, 219). The number of names with *krvav* 'blood(y)' (12) even exceeds those with *rdeč* (8) or *črmljen* (11).

Second, Metka Furlan points out (2022, 290) that in dialect *rjav* often means 'red' rather than 'brown'. The number of names with 'brown' is thus overrepresented because some probably actually denote 'red'. In addition, many names containing 'brown' are of a secondary nature, derived from anthroponyms and referring to features named after a person (nick)named *Rjavec* (or similar; cf. Snoj 2009, 423) and not characterized as 'brown' themselves.

Third, 'red' is also etymologically slippery. Pleteršnik (1894–1895) glosses several adjectives as overlapping between red and other colours: *rud* 'red, brown', *rumen* 'yellow; red', and *rus* 'red; yellow'. All of these derive (like the Sanskrit above) from Proto-Indo-European $*h_1rewd^h$- 'red': via Proto-Slavic $*r\sigma d\check{e}ti$ 'redden' > Slovenian *rdeč* 'red', Proto-Slavic $*r\sigma d'a$ 'rust' > Slovenian *rjav* 'brown', Proto-Slavic $*rud\sigma$ 'red(dish)' > Slovenian *rud* '(brownish) red', Proto-Slavic $*rum\check{e}n\sigma$ 'ruddy' > Slovenian *rumen* 'yellow', and Proto-Slavic $*rus\sigma$ 'yellow, red' > Slovenian *rus* '(brownish) red' (Snoj 2003, 608, 625, 632–634). It is thus unsurprising that they have overlapped both synchronically across dialects and diachronically.

Based on this, Figure 3 could be adjusted by moving some examples of 'brown' to 'red' because some may in fact mean 'red'. This results in a much closer match with Berlin and Kay's sequence (Figure 4).
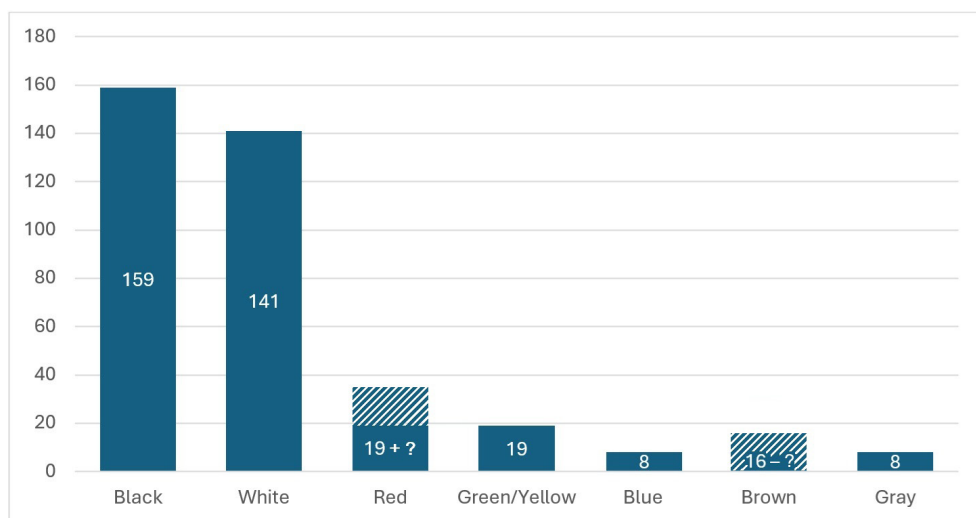

Figure 4. Slovenian toponyms containing standard and additional colour terms, adjusted for red and brown.

Finally, Purev et al. (2023, 148) draw attention to a more recent revised sequence of basic colour terms by McCarthy et al. (2019): white > black > red > green > yellow > blue > grey > gold > brown > pink. This matches the Slovenian data both better and worse. In the Slovenian data black dominates over white, and yellow is in the last group, with no examples. However, green clearly outranks yellow in the Slovenian data, and grey is as frequent as blue (and should not be grouped with purple, pink, and orange; see also Figure 1, in which grey ranks more prominently). Moreover, gold is attested in Slovenian toponyms (unlike purple, pink, and orange).

8   Motivation

This analysis primarily focuses on frequency and does not address the motivation behind colour associations. Beyond simple motivations (e.g., a feature is called black because it looks black), some toponyms contain colour terms because of association with compass points (black designating 'north', white 'west', red 'south', and yellow/green/blue 'east'; see Hill 2014). This is often characterized as an Iranian system, but it has parallels farther east (Kouwer 1949, 51). A black/white contrast is also associated with that between dark needleleaf forests and light broadleaf forests (Štěpán 2004, 37ff., cited in Snoj 2009, 55). Both explanations (among others) have been invoked for the Slovenian choronym *Bela krajina* 'White Carniola'. Snoj (2009, 55) mentions yet another contrastive colour designation for hydronyms: if two streams are designated 'black creek' and 'white creek' for no obvious reason, the former is a tributary of the latter.

Colour terms in toponyms may also have political associations. For example, the Ukrainian city of Kryndachivka (Ukr. *Криндачівка*) was renamed Krasnyi Luch (Ukr. *Красний Луч*, literally 'Red Ray of Light') during the Soviet period after the Shterivska power station (Ponomarenko 1968, 392); it was later named Khrustalnyi (Ukr. *Хрустальний*) in 2016 (Postanova 2016). Similarly, the Mongolian city of Urga (officially Niĭslel Khüree after 1911) was renamed Ulaanbaatar (literally, 'Red Hero') in 1924 when the Mongolian People's Republic was founded (Gilberg & Svantesson 1996, 21). Although Slovenia also experienced politically motivated renaming during the communist era (e.g., Mount Kotlič becoming *Partizanski vrh* 'Partisan Peak'), no changes involved colour symbolism.[2]

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2   Note, however, the informal expression *rdeča Primorska* 'red Littoral', referring to the purportedly greater enthusiasm for communism in far western Slovenia (Jenštrle 1994).

9   Limitations and further research

The most significant limitation of this survey is that it only considers toponyms in *Veliki atlas Slovenije*. Although the sample is large enough to be representative, additional microtoponyms are also informative and could increase the robustness of the data. For example, Snoj (2009, 423) mentions the *Rjavcen* farm (in Počakovo) as a derivation from the surname *(E)rjavec* (literally, 'Brown').

Additional information could also be gleaned from Slovenian toponyms in cross-border areas outside the atlas. For example, the Austrian village of Schwarzendorf has the Slovenian equivalent *Črnčiče* (Kattnig & Janko Zerzer 1982, 15), both based on 'black'. Similarly, the aforementioned Italian map series (Canìn 2019) contains not only additional settlement names of interest (*Bila*, literally 'White', for Italian San Giorgio), but also oronyms (*Cyrna Pënć* 'Black Cliff', *Bila Pënć* 'White Cliff') and hydronyms (*Cerni Patok* 'Black Creek' for Italian *Rio Nero* 'Black River'). This especially applies to the microtoponym level. Some microtoponyms in the ethnically Slovenian area of western Hungary are motivated by colour (Geršič et al. 2023), such as *Béjli máust* (literally, 'White Bridge'), *Črna bùkonja* (literally, 'Black Beech'), and *Ridjàjca* (literally, 'Clay', from the dialect adjective *riďavi* 'brown'). In addition to those using basic colour terms, there are metaphorical references to colour in some of these names, such as *Srebȑni bréjg* (literally, 'Silver Hill'; Geršič et al. 2023).

Further data could also be obtained from historical material (paleonyms and renamed features, and former villages absorbed by larger settlements). Generally, most colour information in paleonyms is still well preserved today – for example, the Karawanks pasture attested as *Gruen albenn* 'green mountain pasture' in 1498 is known as *Zelenica* today (cf. Slovenian *zelen* 'green'; Bizjak et al. 2021, 1756) – although they may also preserve some lost colour designations. The former settlement of Štrlek (now part of Šmarješke Toplice) was attested in the late thirteenth and early fourteenth century with names possibly associated with brown (*Prunsdorf*, *Praunsdorf*, *Pravnstorf*, *Prauwensdorf*; Bizjak et al. 2021, 1543). However, a superficial glance at paleonyms in isolation can also be misleading: *Rȍwtenberch* (a 1361 attestation for today's Čretež in Srednje Laknice) is derived from Middle High German *riute* 'clearing' and is unconnected with German *rot* 'red' (Bizjak et al. 2021, 179; Snoj 2009, 100); *Gelbenstayn* (a 1300 attestation for Gallenstein Castle in Podpeč pod Skalo; Bizjak et al. 2021, 309) is derived from the Gall family and unconnected with German *gelb* 'yellow'; and *Grauen akker* (a 1423 attestation for Knežja Njiva; Bizjak et al. 2021, 562) is derived from Middle High German *grave* 'count' (cf. modern German *Graf*) and unconnected with German *grau* 'grey'.

Postwar changes in Slovenian settlement names primarily affected ones with religious content, or with German and Italian associations (Premk 2004; Urbanc & Gabrovec 2005), and they did not impact toponyms containing colour terms. Likewise, only a few villages with colour terms were absorbed into neighbouring settlements in the second half of the twentieth century, such as *Črna* ('black', annexed by Dole; Odredba 1964), *Črnc* ('black', annexed by Brežice; Odlok 1981), or *Črmljenšak* ('red', annexed by Bišečki Vrh; Odredba 1974). However, *Veliki atlas Slovenije* still indexes all of these, and they are therefore included in this survey.

An additional limitation is that this survey does not distinguish between colour terms used as simple attributives (*Črna vas*, literally 'Black Village') and those in which derivational morphology is applied to the term (*Črnec*, literally 'Black One', a village). Nor does it take into account that colour terms are fully transparent in some toponyms but in other cases are completely opaque to native speakers (e.g., only an etymologist would associate *Cmurek*, discussed above, with 'black') or only conjectures, such as Klemše's suggestion that *Arupacupa* Hill in Italy is derived from *Rusa kopa* 'Red Dome' (2007, 221). However, given the limited number of names containing colours (except for 'black' and 'white'), fragmenting the data further would make meaningful comparison impossible.

Several questions for further research also arise. The first is whether the same sequence is generally reflected in colour-based names in other languages. Purev et al. (2023, 147–148) suggest that the order varies, reporting the order red–black–white in Mongolian, but white–black–red in Scotland (citing Drummond 2007) and black–red–white in Estonian (citing Rätsep 2012).

As a genetically unrelated language but one that is part of the European milieu, examining Estonian (expanding on research by Rätsep, who focuses on 'black') would be fruitful. Drawing from Kallasmaa's dictionary (2016), colour-based Estonian toponyms include the villages of *Mustumetsa* (literally 'Black Woods', from *must* 'black'), *Valgu* (from *valge* 'white'), *Läädinka* (possibly from dialect *leet* 'pale or brownish red'; cf. Oja 2003), *Punakülä* (ostensibly 'Brown Village', from Võro *punanõ* 'brown'), and *Kullamaa* (from **Kultanmäki* 'Golden Hill'), the settlement of *Rohelisetänava* (literally 'Green Street', from *roheline* 'green'; Rus. Зелёная Улица), and the hydronym *Sinejärv* (literally 'Blue Lake', from *sinine* 'blue'). Like Slovenian, Estonian also has toponyms derived from multiple words for 'red' – both native and borrowed – such as *Punikvere* (literally 'Red Cow Place', from *punik* 'red cow' < *punane* 'red'), *Verevi* (from *verve* 'red'), and *Ruutsi* (possibly from Slavic **rudъ* 'red').

Moreover, Uusküla (2011, 153) discusses a possible areal phenomenon of languages with two terms for 'red' (she focuses on Hungarian *piros* versus *vörös*, and Czech *červený* versus *rudý*, concluding that the first terms in each case are the basic colour terms). Uusküla suggests that this broader area should include Slovenian, which raises the intriguing possibility that, like Hungarian and Czech, Slovenian also had competing terms for 'red' that have now been blurred by language standardization but may still exist in remnant contrasts in dialect material.

The statistics presented above indicate that toponyms associated with 'black' outnumber those connected with 'white'. Rätsep (2012) also found that 'black' was the most common colour in Estonian toponyms. Is this generally consistent across geographical categories and across languages? And how broadly do other languages share the same semantic motivations for naming geographical features after colours? Moreover, are certain types of geographical features or terrain more likely to be designated with colours than others (cf. Purev et al. 2023, 142, 145, 150)?

Finally, moving beyond toponyms, what kinds of collocations and metaphors have been lost with diachronic shifts in the denotations of colour terms? Based on a Google Books Ngram query, before the eighteenth century blood was characterized as purple equally often as red in English, as students of Shakespeare know: for example, "purple blood" (*Henry VI, Part III*) "purple fountain(s)" (*Romeo and Juliet*; *Rape of Lucrece*), "purple sap" (*Richard III*), "purple tears" (*Henry VI, Part III*; *Venus and Adonis*), "purple (flower)" (*Midsummer Night's Dream*; *Venus and Adonis*), and "purple testament of bleeding war" (*Richard III*). In Slovenian, too, blood was characterized differently in the past – as *rumena* ('yellow' in the modern language, but also glossed in older dictionaries as 'fallow', 'rose-coloured', and 'red' – cf. Bulgarian румен, Czech *ruměný*, Ukrainian рум'яний, etc., all of which have retained the meaning 'red' or 'ruddy'), so much so that *rumena kri* '"yellow" blood' was a collocation in dictionaries (Murko 1833; Pleteršnik 1894–1895) and in a list of colour phrases found in folk songs (Kočevar 1868). Like the shifting denotations for what are now 'red' and 'brown', this emphasizes that colour terms cannot always be interpreted at face value from the perspective of today's language.

10 Conclusion

This study has examined a variety of colour terms – standard, additional, and metaphorical – in Slovenian toponyms, comparing their frequency to the sequence of colour terms in Berlin and Kay's 1969 study. In doing so, it has also addressed dialect

terms, diachronic semantic differences, and etymological details, as well as suggesting avenues for further research. It has also confirmed the hypothesis that more basic colour terms are in fact more frequent in Slovenian toponyms. Or, as Janez Orešnik might have concluded:

3. The consequences:

If the language distinguishes between more basic colour terms and less basic colour terms in toponyms such that one set of terms is more frequent and the other set of terms is less frequent, then it is more basic colour terms that tend to be more frequent and it is less basic colour terms that tend to be less frequent. Q.E.D. (The reverse situation is not expected.)

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