

A free collection of adjustable typical German map symbols

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Abstract:

Using interactive web maps with a smartphone is very common in everyday life. Main commercial provider in this domain are American companies (Google, Apple, Mapbox), which use the typical map design for their country. Symbols are an essential part of maps and in some way connected to the culture and language of the region of origin.

The free symbol collection Maki from the American company Mapbox is an example of this behavior and is based on the common signs of the English-speaking world. Its symbols can be adjusted with a simple online editor. A CC-Zero-License enables the usage for all applications and makes this collection the first choice for many map creators.

Many studies (e.g. Blake Huer, 2000; Joy Lo et al., 2016) confirm that people with different cultural and ethnic backgrounds perceive symbols differently, especially when interpreting the meaning of the symbols. Hence, the cultural and ethnic characteristics of different countries influence maps and the design of their symbols. Consequently, the American typical Maki symbols are less appropriate for German or European maps. There are also typical position signatures in German-speaking countries, which are so far not free available in digital form.

A Bachelor's thesis¹ helped to fill this gap: On the one hand, it was examined to what extent the creation of the Maki symbols differs from the signatures of the German-speaking area. On the other hand, a collection of adaptable position signatures for tourist maps of the German-speaking area was developed due to the necessity of a culturally appropriate repertoire of signatures. An analysis of position signatures in tourist maps of the German-speaking area was carried out regarding their inventory and design. The recommendations for the design have also been compiled as the research is based on scientific work. The consideration of the culture-dependent perception of signatures was highlighted to ensure the best possible use of the designed signatures within the German-speaking area.

The most common signatures are compared to the Maki collection to clarify differences and commonalities. An inventory shows that monuments and churches are the most used signatures in maps of the German-speaking area. Their design is based on geometric shapes and the essential features of the reference objects. The elevation image, rectangular backgrounds, and the color black are popular. The comparison of German position signatures with American symbols concludes that the German signatures are less pictorial but more culture- and concept-specific than the American symbols.

As a result, a small collection of typical German map symbols has been made available. It is a small set of icons with similar dimensions. Other contributors are welcome to complement the collection, which is freely available in a maki-compatible SVG format on GitHub². However, a mention of the creator is appreciated.

¹ <https://nbn-resolving.org/urn:nbn:de:bsz:14-qucosa2-766943>

² <https://github.com/CarolinRue/german-map-symbols>

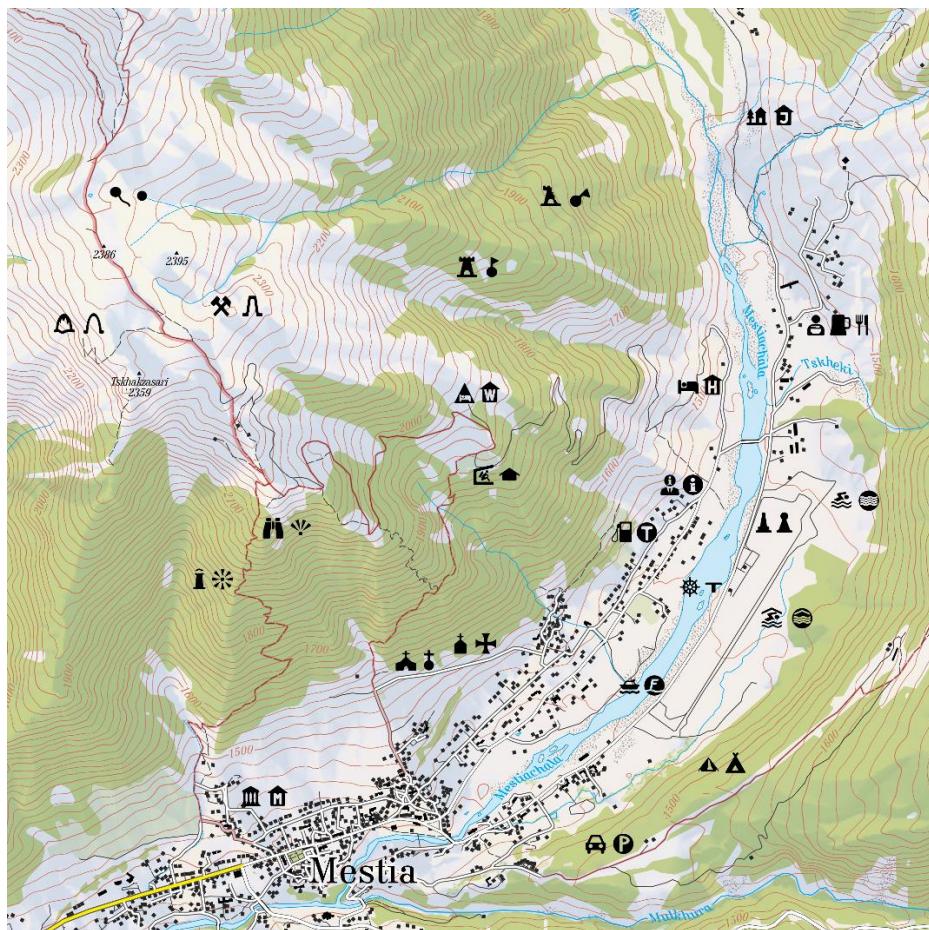


Figure 1. The designed collection of position signatures for tourist maps of the German-speaking area (Map: Mathias Gröbe, TU Dresden 2021, Data: © OpenStreetMap Contributors 2021).

References

Blake Huer, M., 2000. Examining perceptions of graphic symbols across cultures: Preliminary study of the impact of culture/ethnicity. In: *Augmentative and Alternative Communication* 16, Vol. 3, pp. 180–185.

Joy Lo, C.-W., Yien, H.-W. and Chen, I.-P., 2016. How Universal Are Universal Symbols? An Estimation of Cross-Cultural Adoption of Universal Healthcare Symbols. In: *Health Environments Research & Design Journal* 9, Vol. 3, pp. 116–134.