World Academy of Science, Engineering and Technology International Journal of Geotechnical and Geological Engineering Vol:15, No:07, 2021

Morphology of Cartographic Words: A Perspective from Chinese Characters

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Abstract : Maps are a means of communication. Cartographic language involves established theories of natural language for understanding maps. "Cartographic words', or "map symbols", are crucial elements of cartographic language. Personalized mapping is increasingly popular, with growing demands for customized map-making by the general public. Automated symbol-making and customization play a key role in personalized mapping. However, formal representations for the automated construction of map symbols are still lacking. In natural language, the process of word and sentence construction can be formalized. Through the analogy between natural language and graphical language, formal representations of natural language construction can be used as a reference for constructing cartographic language. We selected Chinese character structures (i.e.,

Keywords: personalized mapping, Chinese character, cartographic language, map symbols **Conference Title:** ICGGIS 2021: International Conference on Geoinformatics and GIS

Conference Location: Ottawa, Canada Conference Dates: July 12-13, 2021