## ACHIEVABLE GOAL OR CHIMAERA ? STANDARDISATION IN TACTILE MAPPING

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The argument for standardisation in tactile mapping, as in any other category of mapping, is that the possibility of error or misunderstanding will be reduced if the design of map marks and their use are both standardised. This is a very seductive argument and the burden of proof may seem to lie with those who design or use map marks in a non standard way. Given the well-known and often rehearsed restrictions on the design of tactile maps (see, e.g., Tatham, A. F., 1991<sup>1</sup>), the argument might be thought to be upheld with even greater force in this area of cartography. The paper explores whether and to what extent the apparently sensible argument in favour of standardisation in tactile mapping can be sustained in practice. The paper argues that there is a considerable difference between our ability to provide standardisation in the design of tactile symbols and the difficulties faced in using those symbols in a standardised way.

The starting point in the standardisation of the design of symbols is the sensing ability of the finger tip. This has been used most successfully in the development of the Braille alphabets, mathematical and musical notations. Its success depends on the standardisation of both the absolute dimensions of the raised dots and their relative spacing. The principles can be extended, it is argued in the paper, into cartographic symbols. Where available, variation in the third dimension can be included in the standard design schemes. Thus, the paper argues that standardisation in the design rules for tactile symbols is achievable.

By contrast, the paper argues that the possibility of standardising the use of tactile symbols, which is what many non-cartographers mean by 'standardisation', is indeed largely a chimaera. It is not entirely so, since there are, in tactile mapping as in other areas of mapping, some specialist types of map that could benefit from standardisation, and the paper notes some key examples. However, since many tactile maps are made, not for the mass market, but for individuals or small groups, it may be that the future of standardisation should really be customisation for the particular tactile capabilities and information requirements of individuals – a future which automated cartography makes practicable.

<sup>&</sup>lt;sup>1</sup> Tatham, A.F., 1991 : The Design of tactile maps : theoretical and practical considerations, pp.157-166 in Rybaczuk, K., & Blakemore, M., 1991 : Mapping the nations : The Proceedings of the 15<sup>th</sup> International Cartographic Conference, Vol.1, London, ICA 1991 Ltd. (see especially p.158).