

NEW CONCEPTIONS OF ICONICITY AND ITS SIGNIFICANCE IN THE SEMIOTIC INTERPRETATION OF CARTOGRAPHIC SYMBOLS

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BACKGROUND, OBJECT:

The vital role of iconic signs was already recognised at the time of the initial paradigm shift in cartography (Freitag, 1971). However, early publications regarding this issue already make reference to the conventional character of the signs used in cartographic representations (Gaebler, 1968). This is noteworthy since, some time later, notable semioticians criticised the “classic” term, iconicity, and attempted to treat icons as if they, too, were conventional signs (Eco 1972, 2002, 1977, Blanke 2003).

The extensive consideration of the iconic representation of signs by Bollmann (1977) can be seen as conclusive, and yet also as the beginning of a development, that was subsequently (2001) stated more precisely and expanded upon. According to this perspective, iconic signs embody “semantic relationships between certain visually perceptible features of a range of objects (an object class) and their graphic representation” (Bollmann 2001, S. 390).

There is a widely prevailing opinion that when designing maps, only iconic signs should be used, because this makes the cartographic representation as faithful and as effective as possible (Bollmann 1977, Nöth 2000, Koch 2004). Nöth (2000) counters this opinion by proposing that maps are primarily indexical. The underlying reason for such differing opinions and assessments is that different analysis criteria were applied.

Since around the beginning of the 21st century there have been new studies about graphic representation in general, about the question of iconicity, in particular, and towards the creation of an interdisciplinary science of iconography. Papay (2005) goes so far as to suggest that since the beginning of the 1990s, one might speak of a “pictorial turn” or an “iconic turn”. For the German-speaking world, the semiotic and philosophic studies about iconic signs by Blanke (2005) are also relevant to cartography. They have not been adapted previously to directly address the needs of cartography, and this is one of the tasks that this paper will now seek to accomplish.

APPROACH AND RESEARCH METHODS, CONCRETE RESULTS:

By means of a critical evaluation of the newer literature, deductive analysis as well as practical (empirical) analysis of iconic cartographic symbols in tourist maps, the following problems will be addressed and corresponding results/theses formulated: The similarity between sign and object, conventional aspects of iconic signs, cartographic relevance of the iconicity model from the French “Groupe μ ” – the role and significance of the new term, “iconic type”, iconicity and cartographic pragmatics.

Definition of iconicity; the similarity between signs and objects:

Nowadays iconicity (in the traditional sense, cf. Morris, Peirce) can no longer be defined as the relationship of similarity between sign and object. This definition must be expanded and refined. This applies to semiotic systems of signs in general and also specifically to cartographic symbols, which Peirce counts among the “diagrams”. Conventional aspects must be taken into consideration and connections to the process of perception established. Here basic suggestions have been put forward, most notably by Blanke (2003). In his writings from 1972/2002, Eco organised the features into three sections, which make the iconic representation of object classes possible (cf. also Bollmann, 1977): visible features – such as shape, colour etc.; features of which you are aware – functions, values etc.; and already conventionalised features.

With regard to the iconic signs that are used in tourist maps, a similar, although more strongly differentiated (i.e. more highly specified) structure is possible:

- Symbols in plan: relatively infrequent, however necessary if invariable features (perceptual images) can only be realised through the plan diagrams.
- Symbols in profile (stand-alone or within a frame): exterior view of the object, typical objects, component parts, tools (that you are familiar with!) within the object, typical movements of people within an object (e.g. with sporting objects).
- Conventional iconic symbols relating to the traffic infrastructure and the layout of tourist routes.

Iconicity models, cartographic relevance of the iconicity model of the French "Groupe μ "

In order to achieve a more precisely defined similarity relationship and/or iconicity modelling, we must breach new territory. To do so, a suitable model is that expanded on by the author in Bollmann and Tainz (2001), which shows the iconic-cartographic diagram of significant features depending on abstraction, mental realisation and level of iconicity.

Outwardly a very simple iconicity model (in the form of a triad), but with the newly introduced "Type" component, this model originates from the French research group, "Groupe μ ". Its characteristics are also of considerable significance to cartographic symbols. In this context, perception and cognition play a large role. This theory is based on a semiotic model of perception. In the new iconicity model, the relationships that exist between its three components are decisive. They are characterised through two dichotomies of invariables and variables, as well as of expression and content. Both "type" and "sign", and "type" and "that which is represented" stand in opposition to one another. "Sign" and "that which is represented" are variants of the same type (the same object class), as both possess constitutive characteristics of the respective iconic type (in tourist maps e.g. youth hostel, windmill, memorial, signpost etc.).