Peripheral meaning in maps: The example of ideology

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The basic function of a map is the intentional conveyance of information about a territory. Sign contents relating to other domains are peripheral to the said information and are therefore collectively called peripheral meaning. One kind of peripheral meaning, i.e., ideology, is the subject matter of the present paper. At this place, "ideology" is a short term for beliefs about the socio-political component of the world. On the basis of observations gleaned from the cartographic literature, an attempt is made to place ideology into a semiotic frame. An ideological meaning component is considered a connotation which is often associated not with a single type of entries but a class of such types. Finally, the retrieval of ideological connotations in map interpretation is sketched.

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The basic or central function of a map is the intentional¹ conveyance of the cartographic information (Neumann, 1997, entry 444.0), that is, of information about the mapped territory.² But among the sign contents (or meanings, or contents for short) which can be retrieved from the representation there may also be some which relate to components of the context in which the map originated, for example, to the map author's way of thinking, the supposed expectations of the intended audience, or the mental "climate" of the time of mapping. Such sign contents are peripheral to the information about the territory and are thus collectively called peripheral meaning. Entries expressing peripheral meaning may be encountered within the map face, in the marginal notes, and in the adjuncts (that is, additional complexes of entries placed on the map sheet). This paper deals with ideology, i.e., one kind of peripheral meaning.

In the present context, "ideology" is a short term for beliefs about what the world – more specifically: its socio-political component – is like or should be like. Such beliefs are, in the first place, the map author's, but they are usually shared by his audience. They may be idiosyncratic, but more often they are culturally conditioned, i.e., belong to the socio-cultural background or context of the cartographic product. They make up an ill-delimited universe.

1. Observations

Ideology as reflected in maps has become a popular research topic. We start with some examples from the literature to which we shall return several times. The authors' interpretations are provisionally taken on faith.

¹ "Intentional" implies that the representation of each place and its characteristics is based on the map author's decisions. Air-photographs, in contrast, lack this trait; rather, places and their characteristics are recorded "in bulk", provided the sensor system can "see" them.

² The territory may be real or imagined, and the information about it may be factually correct or fictitious.

The ideological import is obvious in recommendations for the choice of colours and other symbol traits in the interest of Marxist-Leninist partisanship: "progressive - reactionary: red black, flag and flame for revolutionary actions, scale-independent emphasis on outstanding political events - revolutions etc." (Gaebler, 1984, p. 10, transl. H.S.). Speaking more generally, political propaganda by means of cartographic representations is a major vehicle of ideology. Further, Harley notes that in English 18th-century county surveys smaller rural cottages were sometimes omitted (we interpret: less completely and consistently represented than manor houses and large farmsteads) and suggests that this fact "may be a response as much to the ideal world of the map maker's landed clients as to the dictates of cartographic scale" (Harley, 1988a, p. 292). He also observes, for European states of the 16th to 18th centuries, that the size of a settlement symbol in a map might be influenced less by the extension of the settlement on the ground than by its military importance or the rank of its resident lord, in accordance with the social order known to map authors and their clients (ibid., pp. 292-294). In the same vein, the costumed human figures which appear as adjuncts on cartographic representations of European cities during the 16th and 17th centuries inform about privileged social strata (Harley, 1988b, p. 68). Finally, there are interesting attempts to tease out ideological aspects in modern tourist maps of the Holy Land (Collins-Kreiner, 1997; Collins-Kreiner & Mansfeld, 2005).

2. Semiotic interpretation

Results of contemporary cartographic studies on ideology, like those just cited, tend to be intuitively plausible, but, in empirical research, a semiotician would like to see more stringent arguments. Indeed cartographers who borrowed interpretative approaches from analyses of fictional literature and painting have done little to show how these approaches work in their own field (see esp. Pickles, 1992, pp. 222-226 and 230). It should ultimately be possible to model the signification process, to extract or derive ideological meaning components in a stringent way, and to inter-subjectively assess the results. Some thoughts about these matters will be offered below. The issues to be discussed for ideology can be generalized to cover all kinds of peripheral meaning.

The most obvious vehicles of ideological meaning are adjuncts and – to a lesser extent – marginal notes. In contrast, the entries assembled within the map face convey, in the first place, information about the territory, and other kinds of meaning are accommodated in rather subtle ways, if at all. Among the marginal notes, the title may serve as an example. In the 1960s, certain wall maps showing the same European country would carry the titles "Federal Republic of Germany" or "West Germany", depending on the origin and political allegiance of the map maker. Among adjuncts, interpretative comments in certain popular atlases (e.g., in Kidron & Segal, 1991) come to mind; they are designed to direct the map user's attention to broader social issues. Further, the cover art of state or provincial road maps in North America sometimes appears intended to increase the popular appeal of their territories (Bockenhauer, 1994). Finally, the images of costumed persons which appear in the margins of many pre-modern city maps may be mentioned again; they project ideas about who counts in a society (Harley, 1988b, above).

As for entries within the map face, ideological contents may be associated with single symbol types (Gaebler, 1984) or, more often, with classes of such types. Thus, we may be interested in classes of signs which, under a theme, inform about certain referents, such as antiquity sites, cottages, rural settlements, settlement features in general, or objects of potential importance to tourists. The map title indicates the limits within which we can expect to find information. Ideology influences, within these limits, how the universe of contents is articulated and what items are selected for mapping or else disregarded. Examples cited above (Harley) are the rank order of settlements (as reflected in symbol size) and the omission of settlement features.

An item of ideological meaning is a connotation. This is a sign content which is not immediately coupled with a (perceptible) expression (or sign vehicle) but is conventionally called to mind – or released – through the mediation of a more basic content (Eco, 1976, pp. 54-57; with reference to maps: Schlichtmann, 1979, passim).³ Thus, the symbol /glacier/, through its immediate meaning 'glacier', connotes or calls to mind 'dangerous terrain' (at least for an experienced mountain hiker). Or, in the above example, the cottage symbols, by virtue of their immediate meanings, collectively point to a connotation. It may be difficult to put in words and may admit of different formulations, and it may be couched in a single proposition or more than one. Thus, one expects at least a single proposition like 'cottages are considered unremarkable compared with manor houses and farmsteads', but it may be expanded by 'this accords with the thinking of the contemporary land-owning elite'.

3. Retrieval of ideological connotations by the map user

How can a map user retrieve ideological connotations? Often they are released if the facevalue information derived from the map is confronted with background knowledge about the territory, sometimes also about mapping practices. If Edney (2005, p. 79) writes that "maps are imbued with meaning by being read" and that "meaning is read into the … map image", he is obviously referring to the derivation of connotations (which, of course, are only a subset of the sign contents which the map user must retrieve). We exemplify for the frequent case of omitted information. The interpreter's argument would roughly go as follows.

- (1) Based on map title and background knowledge, we expect that certain classes of features are adequately represented.
- (2) We observe that one or the other class is omitted or that the map shows fewer of its members than expected.⁴ This calls for an explanation.
- (3) An explanation is proposed and substantiated in the context of the appropriate knowledge. It is formulated in one or more propositions.
- (4) In the above example (Harley, 1988a), the explanation may be ideological, i.e., reflect appraisive thinking about the world.
- (5) But what if such an explanation is not supported by the available knowledge? Then an alternative one must be considered, for example, that information has been omitted due to the map maker's wish to avoid clutter or due to requirements of security.

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³ The concept of connotation is not entirely clear and has been subject to much critical debate. But whatever shortcomings there may be, in the interest of clarity we need some way of keeping apart immediate and mediated meaning components.

⁴ In empirical research, one lists all types of objects (or classes of such types) which are of interest and then records whether and to what extent they are represented. That is, one employs a variant of content analysis (e.g., Collins-Kreiner, 1997, p. 46f).

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Normally an interpreter aims to retrieve such ideological meanings as the map maker had – or is thought to have had – in mind. This is relatively easy where author and user share the relevant conceptual background. Where they do not, because they live(d) in different cultures and/ or at different times, the map author's thoughts must be established, or at least shown to be probable, from collateral sources, usually written ones.⁵ To return to the example, if historians tell us what 18th-century English surveyors and their clients thought about the remarkability of rural cottages, then they presumably had satisfactory sources, which hopefully are also accessible to other interested persons. Admittedly, sources are sometimes insufficient. In this case, perhaps, items of ideological meaning can only be tentatively identified by educated guessing, but they still must be plausible in the light of such relevant knowledge as is available.

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⁵ An important kind of sources are compilation instructions, known from modern public map series.