

Possibilities and Problems of Presenting Migrations on Thematic Maps

Tome Marelić

tmarelic@unizd.hr

University of Zadar, Department of Geography, Franje Tuđmana 24i, 23000 Zadar, Croatia

Abstract

Migrations are, as a part of demographic and other social events, extremely complex. Although migration is, simplistically perceived, a physical movement of population, it contains various components which possess spatial, temporal and social characteristics. Besides the basic division into emigration and immigration, migration as a process can be analyzed and observed through its several important components, which can be additionally classified via various factors for the purpose of further analysis. This primarily concerns the demographic structure of migrants and area of migration, areas of immigration and areas of emigration respectively, and natural and social changes which occur (or might occur) in such areas. In addition, temporal determination is very important – time of occurrence and time of completion, considering amounts of people involved in migration and intensity of the migration itself (density of passage through certain spatial or temporal frame). While studying migration, also very important are their causes, so-called push and pull factors, which motivate people to permanently or temporarily change their location. The core of those factors is usually economic or political, a scenario which sets migrations into a wider social context, which can extend from local to global scale. Organization of migration flows is also very important, where migrations can be distinguished via means of transportation (i.e. continental or overseas migrations) or via means of organization (i.e. legal or illegal migrations, organized or randomized migrations).

Literature covering migrations frequently lacks graphic contents. At the same time, both Croatian and foreign authors use graphs instead of thematic maps. Besides the lack of thematic maps of migration in general, it appears mostly one type of thematic map is used to depict migrations. If such a situation is not handled thoroughly, it can lead to the impression that it is the only way to depict such phenomena. Namely, it is the flow map, a type of thematic map with pointed linear signatures (arrows) which vary in width, depending on the depicted data type. If presented data is only qualitative in form (i.e. classification of migrants according to their nationality), then arrows have the same width, but differ in colours or line type (continuous, dashed, etc.). If they also contain some sort of quantitative data (i.e. number of migrants from Croatia moving to various overseas countries in certain timeframe), then arrows differ in width, according to the number of migrants they represent. Flow maps are very suitable for depicting movement and direction and intensity of movement, but they are not the only method of depicting migrations. Namely, migrations consist of many components, so there is a number of thematic map types which can be used to depict them.

The greatest challenge we have to face in the process of depicting migrations using thematic maps is the time frame, i.e. the interval in which migrations take place. Considering the dynamic nature of migrations, meaning they simultaneously exist in space and time, and the fact that map is a static medium with limitations in representing both time and space in an interval that is longer than a single moment, difficulties occur in choosing appropriate “contact points of time and space” (figuratively). Luckily, we can solve this problem (not completely) by choosing appropriate thematic maps. Regardless of collected data, all thematic maps are compromises in terms of visual representation of the world. Various difficulties in depicting moving objects are additional motivation for further development of methods and

technology used to depict natural and social phenomena via thematic maps, a useful media for visual representation of research results.

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