THE DATABASE OF TURKISH NEWSPAPER'S MAPS

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Abstract
The map is the unique tool to show spatial relationships in the world. Because of that, written and visual media frequently give a place maps as a graphic element. Thus, the study focuses on the maps which published in the newspapers. The main aim of this study is collecting, categorizing and archiving maps’ contents of 8 newspapers, which were published since the Alphabet Revolution of Turkish Republic (1928) to year 2000. During the study, maps and visuals resembling maps have been examined and classified by cartographic rules and their themes in a Web based database. The primary objective of the study is to archive these maps, analyze their Cartographic levels and determine their roles in the news to show map use in all part of the newspapers and to prove the importance of Cartography in spreading knowledge through maps in the news. It is believed, a new Cartographic perspective has been contributed to existing literature.

Keywords: Newspapers, Maps, History, Map Use, Cartographic Heritage, Maps on the News

INTRODUCTION
Maps which are graphical representations of geographic information are one of the best communication tools used for the transfer of information. Maps act as graphical models of the real world with the information such as spatial relationships, location, direction, distance, height, neighborhood, continuity, structure, shape, hierarchy, density and size [1]. The best way to convey the spatial information to user is a map. The other graphic representations (even table and statistical graphics) have not enough tools for the visualization of spatial relationship. Also the spatial distribution of phenomena, visible or invisible belonging to the real world can be conveyed to users via maps with different ways. People don’t have to be professionals to come across a map in a daily life. Maps are very common tools used in media. Visual and printed media which is a very easy and cheap way, has an important role to spread all information to public. For decades, especially newspapers have had a significant place in peoples’ lives because of the convenience they provide in transporting current information. A newspaper assigned missions to publish accurate, understandable and effective news, appeal to all segments, be neutral and reach the greatest number of readers from the day of publication. Accordingly, use of graphic elements is frequent in the newspapers in order to strengthen the expression. Therefore, maps that have a good way to transfer spatial information and graphics are widely used in the newspapers to strengthen and improve the efficacy of the news. In most news, visualization of the message can be enhanced by using maps. Maps have found a place in the newspapers not only as a way to spread the news, but also as advertisement, art, comics and cartoons which are complementary elements of newspapers. So, areas of the usage for maps vary according to the purpose of the news.

In this study, a specific historical period, map and contents of 8 newspapers selected based on their circulation are investigated from the start date of publication until the year 2000 for those which are still published, or to the term ination date of publication for those publication is ended. The research includes years between 1928 and 2000. Mentioned historical periods include the time period between the Alphabet Revolution of Turkish Republic and the Web newspapers were launched. Because the Alphabet Revolution of Turkish Republic occurred in 1928, the study starts from this date. With this development, the alphabet style changed Arabic to Latin alphabet. So, with that all
newspapers design, text of map also changed. Along with this change, such new period would begin for newspaper’s map. The reason why it ended in January 1, 2000 is because the type of publication of the newspapers was changed. Online journalism was launched in these years. This means, the format and style of the press technic had changed. This improvement also affected the press style of the newspapers. Along with this progress, the style of representing all phenomena in map was changed.

The selected newspapers are: Cumhuriyet (1928-2000), Hakimiye-i Milliye (1928-1934), Milliyet (1950-2000), Sabah (1980-2000), Star (1999-2012), Tercümân (1955-1994), Ulus (1945-1975), Zafer (1949-1960). Six of these were examined at archives in Istanbul. Rest of the newspapers were examined via Internet because they are accessible through a Web archive. The researcher conducted all of the examination done in the libraries and online.

The second part of the study was carried out in the office. All these images were categorized from various aspects such as map types or usage of cartographic elements and accuracy of the usage of these elements.

Due to the fact that maps can represent anything that has a spatial component, there are many possible map types [2]; however, these have been grouped into a few categories in this study. In this context, it was analyzed what is or is not a proper newspaper map design, including the spatial information conveyed depending on the cartographic theories, the existence of the usage of map elements and the accuracy of the usage of map elements. One of the main objective of the study is cartographic analysis of the maps reaching the readers through newspapers in this period.

The other purpose is to show importance of maps for representing the spatial information in the newspapers. Accordingly, the categorization focuses on another question: which part of the newspaper has included ‘map content’. Such as Report, Sport page, Advertorial, Column etc. Another aim of the study is to investigate the usage of maps as the most powerful communication tool for geographic information transfer in a newspaper and to analyze of the design and cartographic elements. Especially the designs and types of the most commonly used maps are analyzed. Evaluation and archiving maps, storage in a database are also aimed in the study, which will provide important data for scientists from the other disciplines and for future studies. The examined images under the heading of the categorizations determine appropriate place in a flow chart to design a database [3], [4], [5], [6].

THE MAP ARCHIVING FROM THE NEWSPAPERS

Evaluation and archiving maps, storage in a database are also aimed in the study. Due to this reason, the examination part is an one of the important part of the study. The examination is mainly being carried out in some newspaper archives. One of the most comprehensive and important newspaper’s archive is in the Atatürk Kitaplığı in Istanbul. In this library, the 6 newspapers’ pages have been examined one by one according to a schedule of the research. Beside some works in these libraries, some newspapers can be reached by Internet. However, the numbers of newspapers that can be reached in the libraries are more than online resources. So, there are just 2 Turkish newspapers called Milliyet and Cumhuriyet that can be reached all copies since their first day until today in this way in other words as online. Currently, the archive works carried out with these 2 ways. If there is not internet option, the library is the best (or is a better) way to examination but it is a time consuming, error available and tiring process. But the archiving with online sources is easier and saving time when comparing with the archive library works. So, in addition to previous study [3], [4], [5], [6] about Turkish National newspapers’ maps, this study also can be given rise to propose some suggestions to the newspapers that have not an availability on the online way, to open their archives for the people who want to reach some information easier.

After all collecting data process, there is another important work stage to organize all map contents that taking their photos from the newspaper copies. In office stage, these images have been entitled by the format ‘Year_Month_Day_NewspapersName’ and collected for the classification process and planned database in an external hard disk. This part of research is time-consuming as well because, every image has been searched one by one and entitled by the format. So, the entitled images are needed to arrange with this format to take place in the user-friendly database system [3], [4].

At the same time, in the following process, the cartographic techniques of the published maps archive can be analyzed and their accuracies or deficiencies could be observed with designed database. After collecting of all data (newspaper maps) in the database, scientists who are working in the different areas can take advantage of this collected data. Proceeding from here, the published maps archive will be base for the further investigations and the different studies by means of the database. So that, it is very important how these great number of data have been organized for useful querying.
METHOD OF CATEGORIZATION OF THE PUBLISHED MAPS FOR THE DATABASE

To help map evaluation, a syllabus was created which contains the main evaluation aspects and categories (Figure 1).

The categorization could be evaluated under 2 main titles according to Cartographic literature which include main books and researches about basics of Cartography [7]. Also there are some interdisciplinary studies give some idea about the categorization and basic approaches [8], [9]. Taking advantage of these resources, a categorization was made.


Some published maps do not have scale information. Therefore, the ‘Scale’ should be predicted and the scale factor has been approximately examined with 4 parameters: ‘Global’, ‘Continental’, ‘Regional’ and ‘Local’. Global scale involves the entire world maps such as atlas maps and globes. Continental scale is for one continent demonstration. Regional scale is for a region like a country or showing two or more countries together. Finally, local scale is for street maps and large scale maps. The other main categorization is about the part of the newspaper in which the map is. For instance, a map could be in a sport’s page, a comic or an advertisement, etc. The categorization focus on the parts of the newspaper would reflect the use of maps, such as ‘Report’, ‘Sport’, ‘Strip Cartoon’, ‘Logo’, ‘Column’, ‘Caricature’, ‘Article Series’, ‘Advertisement’, ‘Announcement’, ‘Weather Forecast’. ‘The map is in which part of the newspaper’ has been examined. Therefore, the parts of the newspaper, which mostly use maps as a graphic presentation, have been explored. There is another subtitle below ‘Report’ title to determine for what purposes are maps selected. Maps are usually...

According to that structure, the database including geometric information was designed. Beside that the system provides some queries based on features of images, the images could be inquired by location. This database system has been structured by a computer programming language called C Sharp (C#) in Microsoft Visual Studio 2015 platform. It was chosen because of the useful interface and flexibility of the language.

RESULTS

This study introduces an ongoing project on creating an extensive database of maps of Turkish newspapers. The project covers issues of eight selected newspapers in a timespan of more than 70 years. All the maps found in the papers was scanned and categorized. The building of the database has just finished and 30 years of newspaper selected between 1970 and 2000 to entry to the database for the first analysis. 6 of ( newspapers; Cumhuriyet, Milliyet, Star, Sabah, Tercuman, Ulus are included in this data set. Because of the data entry to database has just began, there is no enough result in the end.

The resulting database will be a great help for anyone who would like to investigate the characteristics and development of newspaper maps through the decades of the twentieth century. The database, containing multifaceted data offers a great opportunity for researchers to conduct research not only in the field of Cartography, but do interdisciplinary work like the current study, connecting Cartography, Journalism, History and Politic studies. The research offers a new Cartographic perspective to existing literature about ‘map use’.

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