## HUNGARIAN HOMEPAGE ABOUT MAPS FOR CHILDREN: "THE LAST CHAPTER"

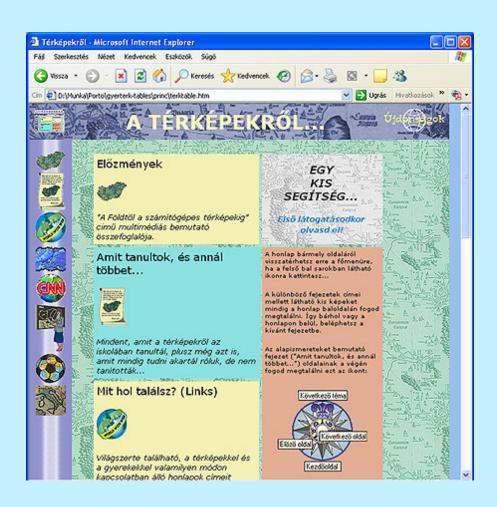
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## Contents of the Chapter "As you are learning and even more ..."

This paper constitutes a completion of the paper presented in the Conference "Discovering Basic Concepts..." (Montreal, Canada) in 1999. Using that opportunity, the general ideas were presented about the creation of a Homepage in Hungarian language for children in elementary schools (Figure 1). The list of cartographic themes presented is the following:

- Orienteering with/without maps in nature.
- Map and reality.
- History of maps.
- Scale of the maps.
- Colours.
- Symbols.
- Geographic names.
- Political and geographic maps.
- Geographic Co-ordinate System: latitude and longitude.
- Simple measuring on maps.
- +1: Locating of places on a globe and on a map.



## Figure 1: The initial menu of the homepage

When I wrote the detailed contents of each theme (and later, when I began to correct problems in the presentation of these themes), I noticed that I need to change some points of this list containing cartographic concepts. Some of these changes are explained hereunder:

## Map and Scale

If I want to explain what a map is, I should write also about the concept of scale. Therefore, I left out the 4<sup>th</sup> theme ("Scale and Graphic Scale"), and it was inserted into the 1<sup>st</sup> theme ("Map and Reality").

## Colours on the Maps

The 5<sup>th</sup> topic ("Colours on the maps") had been a topic too long and complicated, containing too many concepts. Only one example: the same colour has different meaning on a geographic, a political and a thematic map. These differences are not "very well" explained in the Hungarian textbooks, and I would clarify this deficiency. This theme was divided into three new themes, not limited only to the use of colours on the maps:

- Representation of relief (hipsometry and shading).
- Representation of water.
- Other colours on the maps (using colours on political, tourist and thematic maps).

Maps in the Hungarian textbooks of Geography for elementary schools In the textbooks for the subjects related to Geography, different kinds of maps are included as illustrations. That is, we can find illustrations based on geographical and political maps, but we can find illustrations presenting others maps too. For example, in these textbooks for grade 5 we can read short explanations about tourist and thematic maps, but the illustrations of these books include roadmaps and citymaps too. These maps are presented very concisely, in only one short sentence. Because of this, a new topic was included in the homepage ("What kind of maps are there?), explaining:

- Classification of maps according to the scale and the content.
- Thematic maps.
- Tourist, road- and citymaps.

#### Methods of thematic representation

Among the methods of thematic representation, only the cartographic symbols are explained in the Hungarian textbooks. This topic figures also in the homepage, under the title "Symbols on the maps". The other methods of representation are not explained in the geographic subjects during the elementary education, in spite of using some thematic maps in "My First Atlas" edited for 3<sup>rd</sup> and 4<sup>th</sup> grade pupils. We can say that the explanation about how the thematic information is represented on maps depends only on the teacher. To correct it, I explained shortly some of the methods of representation we can find in the Hungarian School Atlases in the 7<sup>th</sup> theme ("Other colours on the maps"). I should admit that while I was writing this part, in the first place I thought of helping the teachers ...

## Explaining geographic names

The geographic names would not figure as an independent topic on the preliminary list. Originally, I planned to include it in the topics "Map and Reality" and in "What kind of maps are there?". Because the geographic names are explained in 3<sup>rd</sup> and 5<sup>th</sup> grades in the subject "Hungarian Grammar", I decided to include it as a new independent theme: "Some words about the geographic names...".

# A long topic: "History of Maps"

Comparing with others topics, "History of Maps" is the longest, although its contents are limited only until the appearance of the first Hungarian map in the 16<sup>th</sup> century. The reason is very simple: during some presentations about maps that I gave for elementary school children between 1997-1998, they expressed that their preferred topics were the "History of Maps" and "Computer Maps". They are especially interested in maps made by the ancient civilisations and maps related to the discoveries.

The final list of topic we can find in the Homepage is:

- Map and reality.
- Orientation with and without maps.
- What kind of maps are there?
- Representation of relief.
- Representation of water.
- Other colours on the maps.
- Symbols on the maps.
- Latitude and longitude.
- Some words about the geographic names.

These 10 themes were divided into shorter units. For example, "History of Maps" was divided into 9 units, while "Representation of relief" only consists of 3 units (Figure 2).

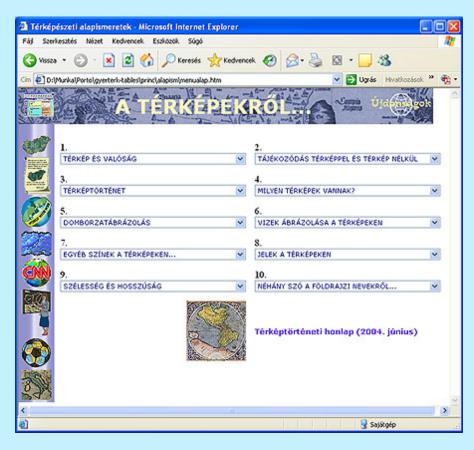


Figure 2: Selection of themes and units in the homepage.

Why did I consider this important? In first place, because in this way it is easier to seek a specific concept within a topic. Another important reason was the design of shorter homepages to keep awake the children's interest in the content. Various research studies demonstrate this, for example one developed by Joseph L. Hoffmann and his colleagues from the Michigan University, between 1996 and 1997 [Hoffmann, 1998]. The homepage created by them would present general themes from four branches of science: Astronomy, Geology, Water Ecology and Weather, for American pupils between the 6<sup>th</sup> and 9<sup>th</sup> grade.

Summing up their results, the principal characteristics to take into consideration for the design of an educational homepage are:

- Balance between text and graphic.
- Short pages, so the pupil do not need to scroll ...
- Easy composition (editing), preferring the use of icons and lists to express our ideas.
- Easy and quick orientation within a homepage, having the opportunity to return from any page of the site to the initial page, or to visit another page within the same site (navigation bar, site map, search engine).

# Structure of the homepage

There is no considerable difference between the structure presented in Montreal last year and the final structure placed on the Web:

- Summing up ...
- As you are learning and even more ...
- What can you find on the Web?
- Try out!
- News and events.
- Learn and play!
- Not only for teachers ...

and a new chapter was included during this year: "Curiosities". Why?

This new chapter was introduced because along the search after illustrations for the presentation of cartographic concepts, particularly for the theme "History of Maps", I found very nice old maps that I would not leave out from this homepage.

With the course of time I had new ideas to be included in this new chapter. At present, it consists of three parts:

- Old Maps.
  - The selection of these maps was based only on aesthetic concepts. That is, this collection can not be considered a second part of the topic "History of Maps", only a graphical completion of it.
- Imaginary or fantasy maps.

  These are maps created by famous writers and/or film-directors, to be used in their literary or film-works for children. For example, the map of the Treasure Island (Robert L. Stevenson), the map of the Mysterious Island (Jules Verne), or the map to be found in the Parisian catacombs given by Emerald to Quasimodo in "The Hunchback of Notre-Dame" (Victor Hugo and Walt Disney).
- Are these maps?
   Old "sketches", engravings etc. which could be maps, but they are not demonstrated yet. For example, one fang
  of mammoth with some engraved shapes on its surface, found in South Moravia (Czech Republic).

This chapter can be completed with other new topics (like maps of others planets) in the near future.

#### Other parts of the structure of the homepage

In the initial page (principal menu) of the homepage an easy help was designed for the users become more quickly familiar with the use of the homepage. This Help contains specific indications, only valid for this homepage, assuming basic knowledge in the use of Web browsers.

In the superior navigation bar a "New" icon will be placed, to reach themes quickly added in the near future. In this same place I intend to include a "Search engine" (to find pages searching by words within this site), and a Site Map (to access directly any page on this site).

### **Future plans**

# On-line Glossary

Other aspect I considered important was the creation of one "On-line Glossary" for this homepage (in spite of Hoffmann's experience, who is against the use of such glossaries ...).

I considered this necessary because while explaining a cartographic concept sometimes it is unavoidable to mention other concepts too related to other sciences, or concepts that children do not learn yet between 3rd and 6th grades. These are concepts like pharaoh, right angle or magnetite.

Another reason is that in some topics I made use of cartographic concepts explained only later, in other posterior themes. Almost always I intentionally avoided the links between themes to keep the continuity of reading a topic. My personal experience and observation is if somebody follows a link, not always comes back to the homepage that was left. For example: *Equator*. I mentioned it in the first theme ("Map and Reality"), but it is only explained in the 9<sup>th</sup> theme ("Latitude and longitude").

63 concepts have been collected for this Glossary: this number can decrease or increase in the future, depending on the teachers' and pupils' opinions and proposals.

## Testing the grade of acceptance

The knowledge of the grade of acceptance of the homepage in elementary schools is a very important factor too. I would know their opinions with the help of a test. This test will have a printed and a digital version, this last to be filled across the Web for the visitors. On the long run the Web version of the test is the best solution, which will be placed in the chapter "Not only for teachers ...".

I am thinking of preparing two tests: one for children (with emphasis on the design) and one for teachers (with emphasis on the content), taking questions as:

#### CONTENT:

- Which topics should be presented with more details?
- Which topics are too much detailed?
- Which topics do you consider unnecessary?
- Which topics should be explained in a different way for a better comprehension?

#### DESIGN:

- Which graphic solutions do you like best?
- Which graphic solutions do you would see on this page?
- How much do you consider this homepage handy?
- Is it easy to find a page within this site?

## Periodic "refresh(ment)"

This is necessary because the homepage contains chapters which contents require a periodical change of information (for example, News and Events), which are designed to keep in touch with the users (Not only for teachers ...) or to include new games or tasks for children.

### Preparation of a Spanish version

In this case, the principal difficulty is not only the determination of the content to be presented in the homepage, but the translation (or more exactly, interpretation) of the original text too. Spanish children use expressions with a different meaning from the same expressions used by Latin American children: the easiest example to illustrate this problem is the word computer: in Latin America, children say *computadora*, but in Spain, children use the word *ordenador*. In addition, about 60-70% of the graphic material (illustrations containing maps) should be substituted by new illustrations, because these maps were selected from Hungarian School Atlases. The selection of the maps is not easy, because they must represent a wide variety of School Atlases used in different countries following different methods to teach map concepts for children.

#### New contents

I am considering the inclusion of new themes or the completion of existing themes in the chapter "As you are learning and even more ...". Mentioning only two examples: the History of Maps can be followed from the 16<sup>th</sup> century until the present, and taking into consideration the children's opinion, a new topic can be included under the title "Computer Maps".

#### References

Hoffman, Joseph L., Kupperman, Jeff and Wallace, Raven (1998). "On-Line Learning Materials for the Science Classroom: Design, Methodology and Implementation". NSF/ARPA/NASA Digital Library Initiative. University of Michigan. USA.

Reyes Nuñez, José Jesús (1999) "Using the Web for Cartographic Education in Hungary". Proceedings of the Joint Seminar on Discovering Basic Concepts. Montreal, Canada, p. 30-35.

The homepage is placed here