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COMPUTER-GRAPHIC VISUALIZATION OF DECORATING COSTUME OF NATIONAL MINORITIES OF THE CARPATHIAN REGION USING WEB TECHNOLOGIES

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This work demonstrates creating a web-resource that would represent the main decorative elements of the Transcarpathian folk costume. The main ethnic groups of the population who lived in this territory were studied. Computer technologies were used to visualize the folk costume, namely, attention is focused on 3D-modeling, which helps to attract the attention of visitors to this web-resource. The results of the work can be used to draw attention to the historical heritage of national minorities and to popularize this topic among Internet users.

Key words: computer technologies, folk costume, 3D-modeling

INTRODUCTION

Today, the development of society pays considerable attention to its cultural heritage which is essential for the development of the Euroregion countries. A special feature of the Carpathian region is that it has always been influenced by many cultures, especially Hungary, Lemkiv, Romanian and others. In different periods of time one or another dominant influence of another culture on the development of the region was observed.

The most important feature of artistic and aesthetic manifestation of folk art is decorative and applied art including embroidery. It was a dominant feature in interior design an important element in the decoration of folk costumes. Embroidery and its ornaments are deeply related to the traditions of the people their worldview and are actually its genetic "code".

The multicultural heritage of the Carpathian region has been dealt with by many scholars and ethnographers. Confirmation of this is the works devoted to folk embroidery [1, 2, 3], ethnographic features of clothing of the inhabitants of the Carpathian region [4] and aspects of artistic design of modern clothing which is based on traditional costumes of different peoples [5, 6].

The amount of information received and analyzed is rather small and relatively under-represented in specialized publications and even more so in the media. Therefore, there is a problem in retaining this information and making it more widely available to potential consumers (especially for young people) in a more accessible and interesting way, that is, calling it a modern



"promotion" style. At the same time, it should be noted the significant development and popularity of computer information including Internet technology among today's youth. In general, all information is perceived by digital sources and gadgets which is an integral attribute of today's society and this trend is a progressive one.

PURPOSE

Therefore, the purpose of this work is to bring in computer and digital technologies to promote the historical heritage of the Carpathian region by presenting decorative and decorative elements of folk costumes of different ethnic groups that inhabit or inhabit the Carpathian region. The object of the study is the decoration of national minorities clothing from Carpathian region with the possibility of its graphic visualization using web technologies.

RESULTS AND DISCUSSION

The authors use computer graphics to achieve the purpose of this project, enabling them to represent the ornamental costume of the costume, as well as the costume itself in digital form with its further adaptation to the structure of WEB technologies. The direct basis of this is data that is processed from existing available sources in particular - museum exhibits, scientific articles, the Internet, consultations with experts in this field. After the initial gathering of information technical tools are involved most notably computer programs of the graphic plan. To enhance the realism and effectiveness of the picture, 3D technologies of graphic modeling of folk costume with characteristic elements of decoration are involved. This implementation significantly increases the interest of the development in terms of involvement of sophisticated and modern graphic design systems.

A model of the site containing a map of the Carpathian region with the characteristic ornament of clothing used for the area is proposed and implemented. By clicking on the appropriate area of the map the user receives relevant information about the features of the folk costume its ornamentation and most importantly - 3D rendering of the folk costume with the closest possible approach of the original to its digital copy.

It should be noted that the implementation of this task requires a detailed study of the specialized software within which this procedure is performed. It also focuses on the need for state-of-the-art computer hardware with support for all video standards (primarily Open GL) and high resolution modes for this type of simulation [7,8].

But a rather complicated process leads to good visualized images in the end. This test work was done in OPTITEX, MD6 environment and is presented in Fig. 1. In this picture the decor elements which were pre-created by CorelDraw graphics editors (according to the original) and rendered to raster format for PhotoShop quite qualitatively. This process was very time consuming and took a lot of time to work with the computer including in the environment of the above vector and bitmap editors.



Fig.1. Basic presentation of a web site with 3D visualization elements of the national costume of the Carpathian region

CONCLUSIONS

The results of this work can serve as a basis for the creation of virtual museums of national construction, which shapes the attributes of the society of the future and allows you to remotely familiarize yourself with the traditions, life and features of a particular ethnic group of the region, and serve as a source of knowledge for future generations.

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КОМП'ЮТЕРНО-ГРАФІЧНА ВІЗУАЛІЗАЦІЯ ДЕКОРУВАННЯ КОСТЮМУ НАЦІОНАЛЬНИХ МЕНШИН КАРПАТСЬКОГО РЕГІОНУ, З ВИКОРИСТАННЯМ ВЕБ-ТЕХНОЛОГІЇ

Робота демонструє створення веб-ресурсу, який представляє базу декоративних елементів народного костюму Закарпаття. Для цього вивчено основні етнічні групи населення, які проживали на цій території. Для візуалізації народного костюму використовувались сучасні комп'ютерні технології. Основна увага зосереджена на 3D-моделюванні, яке допомагає привернути увагу відвідувачів до розробленого веб-ресурсу. Результати роботи можуть бути використані для активізації уваги до історичної спадщини національних меншин та популяризації цієї теми серед користувачів Інтернету.

Ключові слова: комп'ютерні технології, народний костюм, 3D-технології.