- the use of large open spaces filled with natural light;
- efficient use of lighting equipment;

• entry into the environment according to the principle of contrast, which is achieved by using murals on the facades and elements of street art.

The design of the environment of art spaces is distinguished by the degree of loading with objects of modern design: from complete minimalism, when the environment likes clean canvas on which exhibits and cultural events are held, to an eclectic one, filled with various stylistic elements, modern characteristic design details.

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## LEONARDO DA VINCI: THE MYSTERY OF GOLDEN RATIO

## Ruslana Rogovskaya

Polotsk college VSU named after P.M. Masherov, Polotsk, Belarus

To my mind, every person connected with art, architecture, design, science or even teaching should know about this mysterious rule. As for teaching, you can use this rule for the school board, the handouts etc. Moreover, Golden Ratio has been used to design and build many architectural structures, to create music.

The hypothesis of our work is: We can use the Golden Ratio in our present-day life [4].

The aim of the research is to determine the nature of Golden Ratio and identify the influence on the Leonardo da Vinci`s creative work.

**Material and methods.** Our research is based on Polotsk college VSU named after P.M. Masherov and Vitebsk State Technological University. In the research we used such methods as theoretical, historical, empirical and descriptive.

**Findings and their discussion.** For the purpose of this work, the term Golden Ratio will be taken to mean a special number found by dividing a line into two parts so that the longer part divided by the smaller part is also equal to the whole length divided by the longer part. It is often symbolized using phi, after the 21st letter of the Greek alphabet. In an equation form, it looks like this:

 $a/b = (a+b)/a = 1.6180339887498948420 \dots [2]$ 

During this research we became interested in forms of using the Golden Ratio. Especially about using the Golden Ratio in interior design. We made a research about interior design rules based on Golden Ratio and told about it to students with the help of presentation. To prove practical prominence of the Golden Ratio in interior design students were given empty paper rooms and different paper furniture. They were to create harmonious design according to the Golden Ratio. That event helped me and students to realize that the Golden Ratio can be easily used practically in our modern life. It was absorbing and useful for us [1].

The topic of our research is "Leonardo Da Vinci: the mystery of Golden Ratio". That's why we've made a questionnaire to study whether people are informed about such term as "Golden Ratio " in general and where it was used. For the questionnaire we chose 3 category of interviewees: students of our college, students training at department "Design", VSU and teachers of our college. One hundred and fifty people were asked, according to their answers we analyzed and summarized information.

Results show us that 53% students of our college, 100% students training at department "Design" are informed about the Golden Ratio, 71% teachers are informed too.

69% students training at department "Design", 9% students of our college and 42% teachers use the Golden Ratio in practice.

92% students training at department "Design", 31% students of our college and 42% teachers knew that the Golden Ratio was used to build Notre Dame de Paris Cathedral and Pyramids.

84% students training at department "Design", 40% students of our college and 71% teachers knew that the Golden Ratio was used to create such masterpieces as the Last supper and Mona Lisa.

100% students training at department "Design", 90% students of our college and 86% teachers chose the Google's logo in which the Golden Ratio is observed [3].

Further, interviewees were asked to guess how to use the Golden Ratio for teaching.

Answers proved that the using of the Golden Ratio influences on our perception and makes us to choose the logo which is created with the help of the Golden Ratio.

**Conclusion.** Obviously, the Golden Ratio is one of the most mysterious things which are hidden in seeds, flowers, friend's faces, DNA, in worldwide known art masterpieces, architecture, music and even in google and other logos etc. And if we learn more about the Golden Ratio and find out how to apply it in different spheres of our life, including teaching, we'll archive better results and do it faster [5].

1. BrankoGrunbaum and G. C. Shephard, Tilings and Patterns, W. H. Freeman, New York, 1987.

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- 3. Companyfolders.com[Electronic resource]: How to Use the Golden Ratio to Create Gorgeous Graphic Designs.
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