The essay entitled *Geometrical Constants in the Byzantine Icon* comprises the analyses on sections of representations of the Apostles and Jesus Christ, and the meanings of the geometric compositional structures of these icons as well.

In most scenes the bottom of the panel corresponds to the earthly, materiality. The middle of an icon is the meeting place of God and man; it is the space destined for dialogue. And the upper part depicts God's intervention, relates entirely to the spiritual world, the kingdom of Heaven.

In the Byzantine composition, an important feature is the close relationship of the subject / action with the viewer. The Byzantine artist uses reverse perspective and many other items meant to bring the viewer into the realm of what happened. Another type of perspective is the hierarchical perspective.

Even from the Hellenistic period and then during the Byzantine period, the desire for an ideal harmony, made possible the existence of a secret geometry. This geometry was discovered beneath the damaged ancient frescoes, in their drawings, that had, in the first design, a form of sketch, a variety of axis which had a well-conceived finality by the painter. These secret geometries were brought into shape in several treaties, probably the Erminias, mentioned in the *Grammata of the three Patriarchs*. It is recorded that the muralist painters had a very advanced knowledge of the geometry because they were working with large surfaces.

Measurements and composition remained in the Byzantine painting an elementary condition in the creation of works of art with a message."The painting, although mute, knows how to speak on the wall." St. Gregory of Nyssa

The stylistic characteristics of the Paleolog, Comnenian and Cretan periods are different from each other but what unite them are the compositional principles. Panselinos's frescoes are the proof that the Byzantine painting is an artistic mindset.

In the majority of icons I have discovered a variety of diagonals, and this is a characteristic of the Byzantine style.

The Golden Section was used by many artists, and is considered a structure that makes the composition an aesthetic one.

<u>The analysis of the geometrical structure on data base with the icons of Jesus Christ the Redeemer</u>

In this analysis of the geometrical structure, performed on the representation of Jesus Christ, were found quantitative constant axis components of the sections that are active in the program.

Approximately ¾ of Jesus Christ database contains both diagonals.

Is it also noted that in every country, an increasing number of vertical axis of the half of the panel. There were found approximately 110 examples for each country.

In approximately 90 cases, the third of the panel is present, both vertically and horizontally, in each country.

At the analysis of the quarter of the panel, important are approximately 80 Greek icons, containing the first and the second horizontal. In Romania, it is noted a significant number of vertical axis of the quarter of the panel, with approximately 85 examples, but a low number of 1 and 3 horizontal.

In The Golden Section analysis we can observe a constant in vertical axis Φ A in Russia and Romania.

In The Golden Section analysis 1 we can observe a constant on the vertical axis Φ A in Greece and Romania, with approximately 80 images.

In The Golden Section analysis 2 we can observe a constant on the vertical axis Φ E (approximately 85 icons) for each country.

The analysis of the geometrical structure on database with the icons of the Holy Apostles
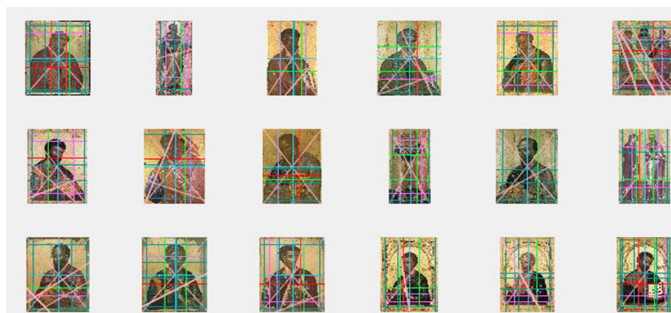
Greece contains diagonals in two thirds of the database.

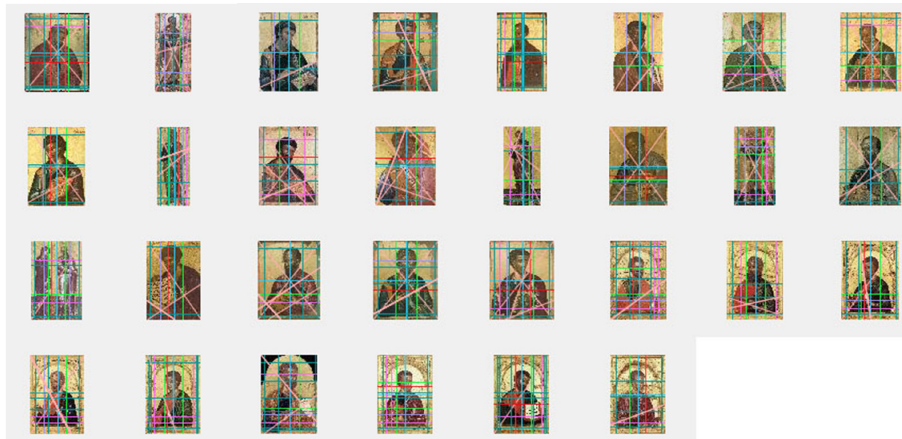Greek icons cluster:
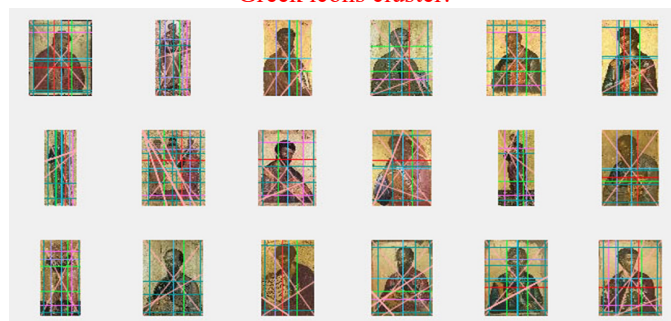
UpLeft/DownRight=cluster de 18 icoane

Greek icons cluster:

UpRight/DownLeft=cluster de 18 icoane

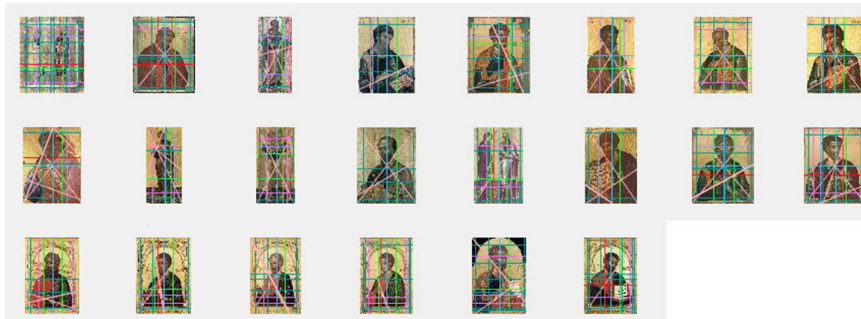The vertical half of the panel is present in almost all Romanian and Greek icons.

Up/Down=cluster de 30 icoane

Up/Down=cluster de 27 icoane
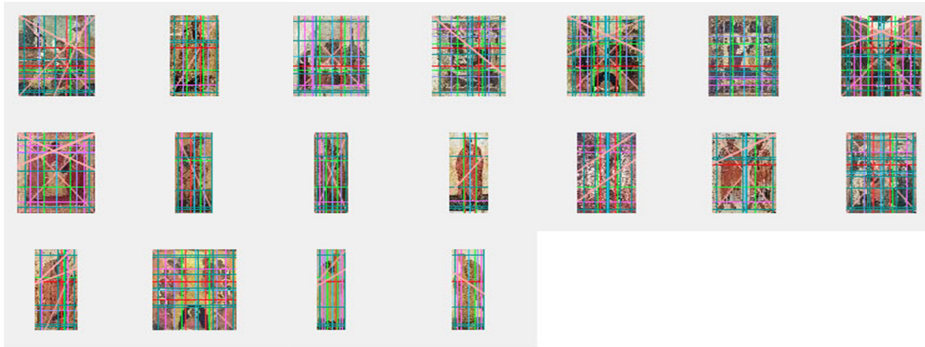
The second vertical of the third of the panel is present in approximately two thirds of the Greek and Russian icons database.

Up2ndThird/Down2ndThird=cluster de 22 icoane

Up2ndThird/Down2ndThird=cluster de 18 icoane

The first vertical and the third vertical of the quarter of the panel is present in approximately half of Romanian and Russian icons database.

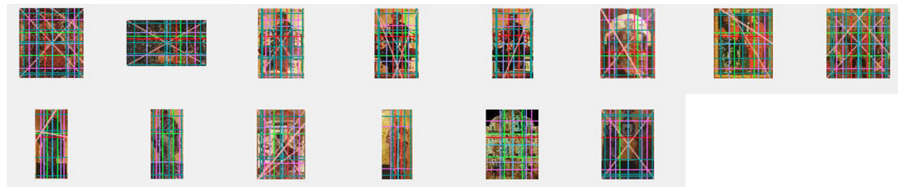Up1stQuarter/Down1stQuarter=cluster de 15 icoane

Up3rdQuarter/Down3rdQuarter=cluster de 15 icoane

Up1stQuarter/Down1stQuarter=cluster de 14 icoane

Up3rdQuarter/Down3rdQuarter=cluster de 17 icoane
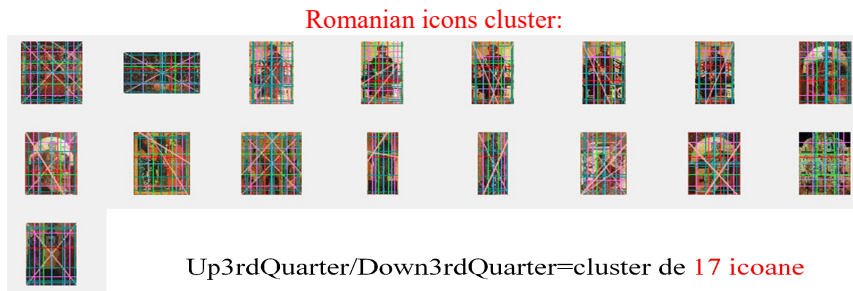
The Romanian icons have the largest number of Φ B vertical,with two-thirds of the database.

UpΦB/downΦB=cluster de 20 icoane

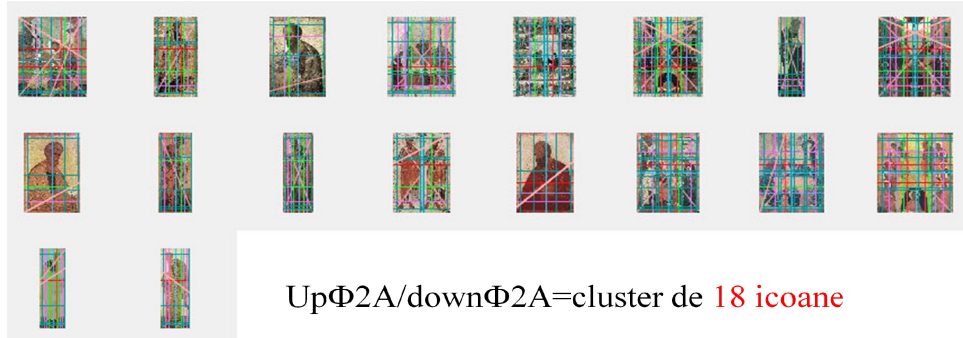In half of Russian and Romanian icons database prevails Φ A horizontal.

In The Golden Section analysis 1, we can say that two thirds of Romanian icons database contain Φ 1A vertical, Φ 1D vertical. In the case of the Greek and Russian icon, we can say that we have a constant in Φ 1D horizontal, which is present in half of the database.

UpΦ1A/downΦ1A=cluster de 18 icoane

UpΦ1D/downΦ1D=cluster de 19 icoane
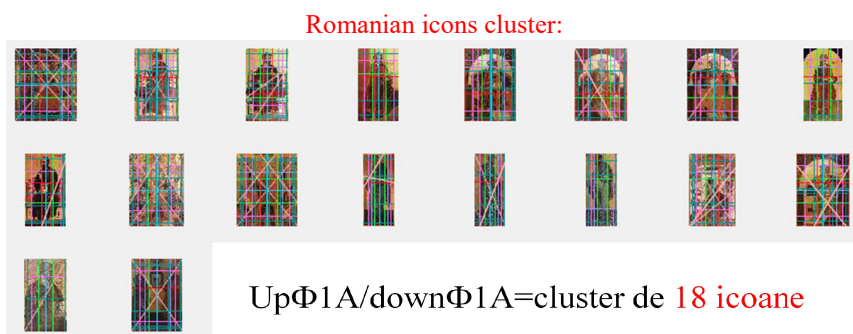
In The Golden Section analysis 2, we have found Φ 2J horizontal and Φ 2A vertical prevailing in Russian icons, with approximately two thirds of the database. On the other

hand, in all the three countries, approximately half of databases contain Φ 2A vertical, Φ 2B vertical, Φ 2J vertical, Φ 2I vertical, Φ 2B horizontal, Φ 2C horizontal, Φ2F horizontal, Φ 2I horizontal, Φ 2J horizontal.

UpΦ2A/downΦ2A=cluster de 18 icoane

LeftΦ2J/RightΦ2J=cluster de 20 icoane