In the essay entitled *Quantitative Constants in the Byzantine Icon* it is described the analysis on the ratio of: white and black on 2 levels; grey on 4 and 6 levels; red, yellow, blue, green, magenta and cyan over 1,200 Byzantine icons as follows: 400 Greek icons of the thirteenth and fourteenth centuries, 400 Russian icons of the fourteenth and fifteenth centuries, and 400 Romanian icons of the fifteenth and sixteenth centuries. It is also made a thorough analysis on meaning of colour in the Byzantine art. An example is the icon of the Saviour, who is dressed in red and blue. Its humanity is represented by red and blue signifies His divine nature. The Virgin Mary is often depicted in dark red robes to signify that she is the representative of mankind, that she has a fully human nature, even though she gave birth to the Saviour of the world. Yellow or gold signifies holiness, the presence of the Holy Spirit; and so with each colour. In the Byzantine painting, the symbolism of colours is not always the same; therefore, there is clear information about the colour of certain items such as clothes or mandorla, depending on scenes and characters. We find the explanation in the Byzantine Erminis.

"Each colour is "self-significant", in other words, it transmits its own message." (EgonSendler)

At the basis of Byzantine culture the main source is the Hellenistic culture, which has a very rich vocabulary with regard to the name of the colours.

In the icon "it is not the aesthetic reason that determine the choice of the colours, nor its place in the composition, but its symbolic significance", says Sendler.

In the quantitative analysis that I have made I underline the most significant clusters that have a similar number of images, fromwhich upon to draw conclusions about the characteristics of each country's custom.

On the 2-level analysis no icon in the data base has black / less than 30%. Since the beginning of the analysis it is noted that Romania uses the darker shades, followed by Greece and Russia.
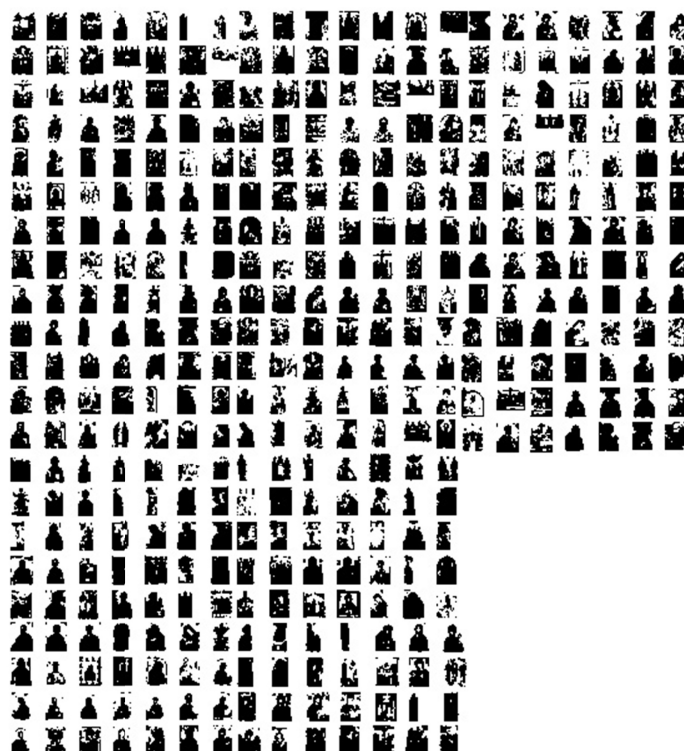
Icoane româneşti
Negru/Tot>0.30 = cluster de 397 icoane
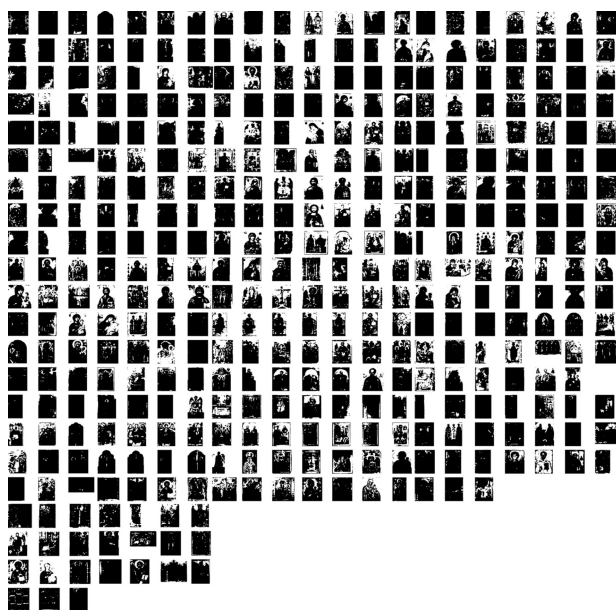
Icoane ruseşti
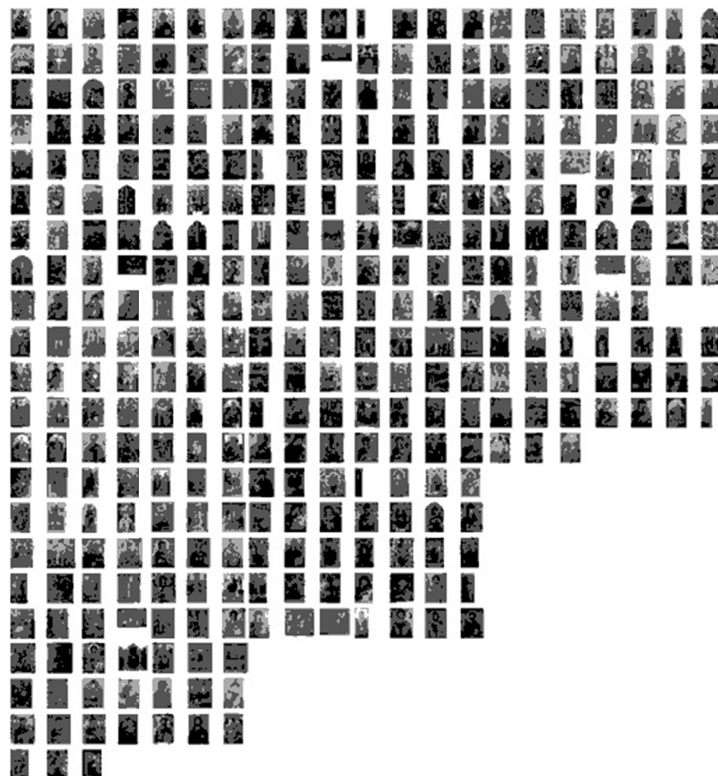Negru/Tot>0.30 = cluster de 390 icoane
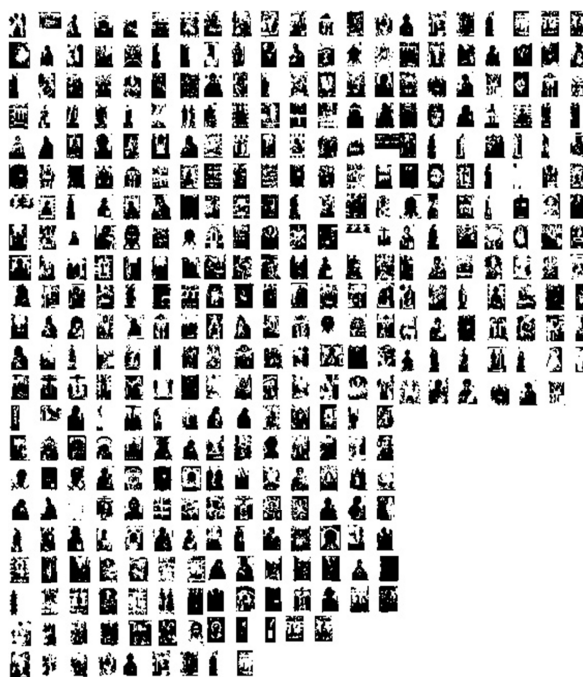
Icoane grecești
Negru/Tot>0.30 = cluster de 399 icoane

On the 4-level analysis, the most significant conclusion would be that grey 1/full dominates in the Greek and Russian icons, and does not exceed 50% of the panel in about 75-80% cases.

Icoane româneşti
Gri 1/Tot >0.30 = cluster de 361 icoane

Icoane ruseşti
Gri 1/Tot > 0.30 = cluster de 307 icoane

Icoane grecești
Gri 1/Tot > 0.30 = cluster de 310 icoane

Thus, we have learned that Romanian icons have the darker tones and the Russian are the brightest.

Grey 2/full dominates in the Russian icon, and, in the majority of icons, grey 2/full on 4 levels does not exceed 50% of the panel.

Icoane româneşti
Gri 2/Tot>0.30 = cluster de 114 icoane

Icoane ruseşti
Gri 2/Tot>0.30 = cluster de 285 icoane

Icoane grecești
Gri 2/Tot>0.30 = cluster de 221 icoane

On 6-level analysis, grey 1 /full does not exceed 50% of the panel in almost all Russian and Greek icons.

On 6-level analysis, in almost the entire database, grey 2 /full and grey 4 /full does not exceed 50% of the icons.

The final conclusion from the analysis on 6 levels of grey is that Russia has icons that contain a higher percentage of grey 3 /full, and grey 1/full predominates in Romania and Greece.

Icoane ruseşti
Gri 3/Tot>0.30 = cluster de 204 icoane

Icoane româneşti
Gri 1/Tot>0.30 = cluster de 258 icoane

Icoane greceşti
Gri 1/Tot>0.30 = cluster de 131 icoane

At the quantitative analysis on 2 RGB levels is observed that white /full does not exceed 30% of the icons within each of the 3 countries.

Another observation would be that red /full do not exceed 40% of the panel in most cases, but Romania uses 2 times more red /full than Greece and Russia.

Yellow /full do not exceed 50% of the panel in any icon of the database.

A final conclusion, and so for the icons in general, is that the grey and darker shades prevail in most cases. That would be shown in a further theoretical research, and is due to the Byzantine technique. The explanation of these prevailing darker, grey tints in Byzantine art comes from its technique: the painting begins by placing darker tones and coverings (*proplasma*), then the lightning and the flesh, which not exceed 30% of the previous shape.
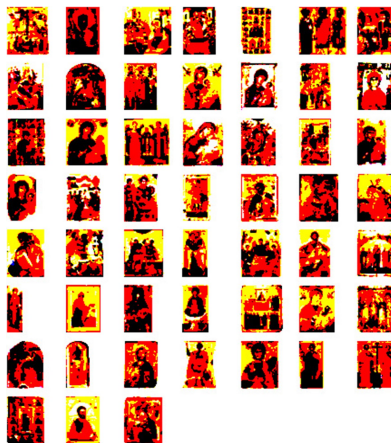

Icoane româneşti
Roşu/Tot>0.30 = cluster de 105 icoane

Icoane ruseşti
Roşu/Tot>0.30 = cluster de 52 icoane
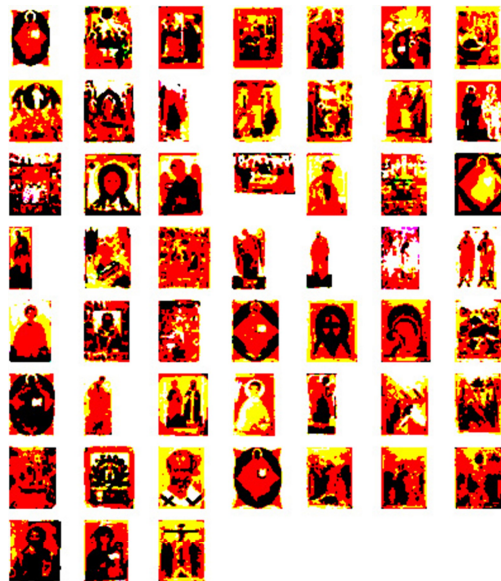
Icoane greceşti
Roşu/Tot>0.30 = cluster de 52 icoane

Icoane româneşti
Galben/Tot<0.50 = cluster de 398 icoane

Icoane ruseşti
Galben/Tot<0.50 = cluster de 394 icoane

Icoane grecești
Galben/Tot<0.50 = cluster de 398 icoane