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THE INVERSE PERSPECTIVE AS A SYMBOLIC FORM

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ABSTRACT

This paper aims to explore the Inverse perspective as a system for graphic communication used in space representations in Byzantine art. The research and following of the system's evolution is more complicated than one might expect, because inverse perspective is not based on objective projective methods. If analyzed, according to the criteria of the modern, strictly defined and objectively understood perspective, one would categorize it as vague, inaccurate and even confusing graphic systems of communication, as it has been done in some previous superficial views on this construction. But if one perceives the wider picture, considering its genesis and context, then one can question their correctness in relation to the objective treatment of space, but still, in relation to the subjective treatment of space, these systems are completely unique and basically represent methodically designed means of artistic expression according to the Mideval Orthodox worldview.

Considering the strict canonization of all aspects of Byzantine sacral architecture and art, it would be naive to assume that the compositional arrangement of the setting and space in the painting was completely left to free interpretation by master painters and their skillfulness to "correctly" and accordingly represent these aspects. Byzantine painting was a substitute for the literary work in the eyes of the vast number of illiterate believers. Inverse perspective was a tool used to express religious thoughts, from the most ordinary historical comments on the lives of the Saints to the most profound theological reflections that transported the observer to the immaterial and transcedental idealistic world of thought. With the very need for such refined visual interpretations of the thoughts of the Byzantine theologians, master painters had to become real expert interpreters and translators of these theological texts with a painterly language. The uniqueness of this painting language lies in the emphasis on spirituality, the irrational and supernatural view of the painted object, same as in the words of liturgists, monks and other theological thinkers.

Key words: Inverse perspective, Byzantine art, Graphic communication.

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1. INTRODUCTION

Considering the strict canonization of all aspects of Byzantine sacral architecture and art, it would be naive to assume that the compositional arrangement of the setting and space in the painting was completely left to free interpretation by master painters and their skillfulness to "correctly" and accordingly represent these aspects.

Byzantine painting was a substitute for the literary work in the eyes of the vast number of illiterate believers. It was a tool used to express religious thoughts, from the most ordinary historical comments on the lives of the Saints to the most profound theological reflections that transported the observer to the immaterial and transcedental idealistic world of thought. With the very need for such refined visual interpretations of the thoughts of the Byzantine theologians, master painters had to

become real expert interpreters and translators of these theological texts with a painterly language. The uniqueness of this painting language lies in the emphasis on spirituality, the irrational and supernatural view of the painted object, similar to the words of liturgists, monks and other theological thinkers.

Master painters were in search of the most suitable painting form and procedure for expressing even the most delicate nuances of theological thought. One of the many pictorial elements used to express the purely mental point of view of religious feeling is, of course, the inverse perspective in the architectural backgrounds, objects, characters and actions represented in the sacral painting. When representing space and time, in which the represented events took place, the Byzantine master painters used a completely new and original way of interpreting them, completely based on the principles of mental interpretation of space and time. Byzantine painters interpreted space and time according to theology, denying the illusionistic imitation of nature, the real world, and optical laws.

History teaches us that when work on certain artistic problems progresses to such an extent that further work in the same direction starting from the same premises does not lead to a fruitful result, a revolutionary change or movement in the opposite direction is often resorted to. Such going back creates the possibility of erecting new structures from the ruins of the old ones. In the case of specific graphic systems, this is achieved precisely by abandoning what was previously achieved, i.e., by returning to seemingly more "primitive" models of representation. The Middle Ages stand between antiquity and modern times as one of the greatest "returns". The next step on the way to the modern "systematic space" was reformulation of the world into a measurable world; measurable, of course, in the medieval sense.

The art-historical mission of the Middle Ages was to unite what used to be a multiplication of separate objects (no matter how ingeniously connected to each other) into one true whole. This new whole, as much paradoxical as it sounds, was reached only by breaking the existing whole, that is, by isolating objects that were previously connected physically, spatially and perspectively. At the end of antiquity, combined with increasing influences from the East, the separate pictorial elements, figures, buildings or landscape motifs that were until then partly content and partly components of a coherent spatial system, were transformed into free-standing forms on a golden or neutral background placed, without respect for any previous compositional logic, in a way that completely rejects illusionistic three-dimensionality.

Once the western world discovered the laws of mathematicaly correct, geometrically consistant linear perspective in the early Renesaince, the inverse perspective became obsolete and was rejected and underestimated as naive, scientifically unsubstantiated and full of optical irregularities and inconsistencies.

2. MATERIAL AND METHODS

The graphic systems used for space representation in Byzantine art were not based on objective projection methods, which is why following their development is more complicated than one might expect. If we analyze them, according to the criteria of the modern strictly defined and objectively understood perspective, we would categorize them as vague, inaccurate and even confusing graphic systems of communication, as it has been done in some previous superficial views on this construction. But if one perceives the wider picture of these systems, considering their genesis and context, then one can question their correctness in relation to the objective treatment of space; still, in relation to the subjective treatment of space these systems are completely unique and basically represent methodically designed means of artistic expression.

In general, the representations of space found in medieval Byzantine painting can be divided into two categories. The first category is the one that preceded the inverse perspective and includes graphic systems in which space is constructed using parallel construction lines, and the second category includes graphic systems in which space is defined through focusing on construction lines.

2.1. Projective systems with parallel lines

Projection systems with parallel lines include orthogonal and oblique projection, which in their structure and method of construction are very close to the inverse perspective.

2.1.1. Orthogonal system

The orthogonal system, which was adopted by early Christian art as a reaction to the optically realistic projection of ancient perspective, represents the strongest contrast to the structure of the classically understood image. The art of complete illusionism in representation of space passed into its complete negation by reducing the architectural masses to their developed surfaces presented on the same drawing plane. In this way, the architectural space of the image is reduced to a surface. The objects are painted with a projection method that excludes the apparent convergence of parallel lines to infinity and adopts an axial system without truncations. All dimensions represented on the same horizontal projection plane represented by a single horizontal line, and all its values are represented in their fully developed form. In order to get a slightly larger idea of the spatial volume of the painted in such representations, a kinetic eyepoint is often used, which allows us to see several sides of the painted object at the same time. - Figure [1]

Figure 1. *Fragments in orthogonal projection: "The Good News" from Mileshevo and "Wisdom Building a Temple" in the Church of St. Virgin Perivlepta, Ohrid*

From today's point of view in projective geometry the orthogonal projection implies that the eyepoint is stationary and infinitely distant from the depicted object. But in this medieval orthogonal representation the eye is not static. The kineticity of the eyepoint allows us to see simultaneously two or more sides of the same painted object, so that the presented image is not a consequence of simultaneous viewing but of a successive experience of exploring space, which captures not only a representation of an architectural surface but of the spatial whole (image .....). The system of orthogonal construction is temporally located in the work up to the XIII century. This concept represents a resistance to classicism and spatial illusionism and is directly related to the rejection of neo-Hellenistic structures.

2.1.2. Oblique projection

The oblique projection as well is not the same as the one studied in the scientific world in Descriptive Geometry. Its structure is something between the inverse perspective in the representations of space in Byzantine painting and the geometric linear perspective of Renaissance painting. In oblique projection, parallel lines neither converge nor diverge, but remain parallel in the image as in real space.

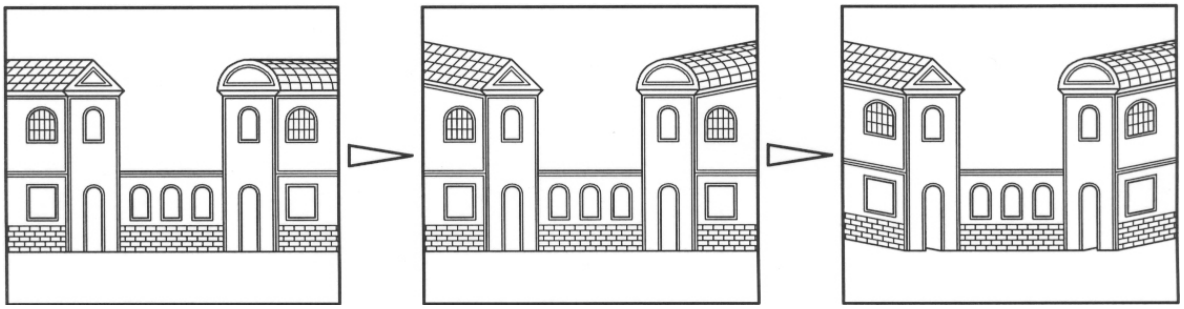

Figure 2. *Diagram of evolution of orthogonal to oblique projection*

Oblique projection in scientific terminology implies that two axes of the imagined coordinate system are parallel to the drawing plane. This construction does not deform space as inverted and geometric perspective do, and leaves dimensions directly perceptible and measurable as in orthogonal representation. Its advantage over the orthogonal construction is that the volume of the painting is much easier to perceive, which makes it closer to the physiological way of seeing, and that in turn makes the painting easy to understand. Obviously, the inverse perspective is not the only graphic system of representing the architectural backgrounds in medieval fresco painting of these spaces. However, due to its originality, which gives a completely special character to the entire conception of the image, the rest of the projection systems seem common, familiar and less characteristic of the general representation of our medieval painting. - Figure [3]

Figure 3. *Examples of the oblique projection "Noah Blesses Shem and Japheth", Dechani and a fragment of the cycle devoted to the life of the Virgin from the Church of St. Virgin Mary Perivleptos, Ohrid*

2.2. Projective systems with focusing lines

If we compare the two systems for space representation with focusing lines (inverse diverging and normal converging) we will see that the only thing that unites them is the convergence of the directions, so the comparison would be made by emphasizing all the opposites in the treatment of space between these two projectional systems. In some cases, they coexist in the same composition, which confirms that the masters were well aware of both constructions, and their preference for the inverse perspective and the moderate use of the perspective with normal converging lines and views only when necessary, is obvious. - Figure [13]

2.2.1. Perspective with vanishing points

The perspective with vanishing points in Byzantine painting appears only on distinctive singular elements of the represented architectural background of the painted compositions, not as a unique system for construction of a mathematically consistent space. It, unlike the inverse system, has a single vanishing point for all the parallel lines of the painted architectural elements (picture...).

The construction of an architectural space in an inverse perspective, next to which elements of a medieval perspective appear with normally converged constructive lines, represents a combination of two completely opposite systems, one of which is extremely unrealistic, and the other is completely realistic in its character. Interventions with medieval perspective with normal vanishing points were not too common, so the general conception of space was usually left to the inverse system. However, even this limited appearance of the medieval perspective with normal vanishing points makes the realized architectural space seem even more unreal than with the full application of only the inverse perspective.

At the beginning of the 14th century, the conditions for a wider acceptance of this projective construction in the artistic realization of continuous compositions matured, where the effects of projection contrasts were sought in order to give an extremely dynamic character to the structure of the image, at the same time emphasizing its individual episodes. The previous construction in which the projective lines are concentrated in the core of the composition, and the new one in which the episodes are highlighted by means of the dynamic values of painted architecture, exist and live synchronously. The newer construction is conceived in the structure of the older one. It happens that both compositional methods are applied in the same sequence. In this way, there is a tendency, in addition to the occasional accentuation of the architectural setting with dynamic effects, to make an additional emphasis on the conceptual center of gravity of the image by means of concentrating the projective lines on it.

If the idea behind this mixture of constructive methods was the intention to use opposites in order to create effects of projective surprises, it could not have selected two more opposite systems than the two medieval perspectives, one of which is the inverse form of the other. Now, in the same composition, vanishing points with normal converging constructive lines, which move from the surface of the painting to the natural depth of the space – to the horizon, seemingly breaking through the wall surface, and vice versa, vanishing points that go from the painted surface into the inner space, into the observer, coexist at the same time, in the same artistic composition. Art often emphasizes this impression with the help of diametrically different positions of the eyepoints, for one and the other construction, so that absolute dynamic contrasts of the architectural forms are achieved, resulting in unexpected scenes.

Figure 4. *Use of perspective with vanishing point and normal converging projective lines on a fragment of "The Assumption of the Blessed Virgin Mary" fresco in Grachanica*

2.2.2. Inverse perspective – Visual interactions

The inverse perspective can be described as a way of representing volumes and space in two dimensions (in a picture) in which instead of characters and objects belittleing proportionaly as the distance from the observer increasess, they enlarge, and parallel lines instead of converging towards one vanishing point on the horizon (as it occurs to us in optical reality) they diverge. This enlargement of the drawn objects in depth is not according to some mathematically calculable rules.

The generally accepted term for this type of space representation - inverse perspective - would probably not withstand a more serious criticism. Most likely, this term is based on the fact that, unlike geometric perspective, where the eyepoint is usually located in front of the horizontal plane and the parallel lines converge to their vanishing points on the horizon, in inverse perspective, the geometric eyepoint is located in the observed space behind the horizontal plane, and thus the parallel lines converge in the opposite direction, which results in shortenings opposite to "normal" viewing. The inverse perspective goes beyond the principles of the physiological perception.

The purpose of this conscious painterly transformation was representation of the divine nature of Christ, which some master painters depicted by simply increasing his figure in relation to the other represented persons, while others used a subtler method and emphasized it applying the inverse perspective. The viewer's preoccupation with the ideal abstract vision of the world is complemented by observing the architectural background from a certain bird's-eye view, consciously avoiding the previous representations of the environment from the height of the human eye or lower. This way, the observer feels like floating, feeling detached from the ground, approaching the heavenly heights while in front of the painted work. The features of the inverse perspective are so unusual that this construction imposes itself on the observer very suggestively. The particularity of the interpretation of the architectural space fixed by this projective method gives a previously unseen character to the whole concept of the image, so that all previous projection systems besides this one become less noticeable in terms of their expressive values.

2.3. Architectural space in inverse perspective

The inverse perspective in the image space is most visible in the representations of objects with orthogonal forms and their proportions. Therefore, as an object of research, the painted architectural backgrounds, their positioning and mutual relations, the proportions of elements and the proportions of objects with the characters and actions were analized.

The basic role of painted architecture was to introduce location as a category in painting and create an architectural framework for a specific content unit, thus creating an environment in which the action takes place. The obvious role of the painted architectural background is to indicate the place of the represented event, but it also has a hidden, not so obvious role to direct the viewer's gaze to the main action and figures of the picture. In a space constructed with inverse perspective, networks of lines directed from the painted space to the observer, from the architecture into the interior space, are obtained, which mediate between the observer and the painted characters, at the same time emphasizing the ideological centers of the compositions.

Representations of architecture in Byzantine painting have a wide range, from the simplest architectural forms placed in an independent position in relation to the whole picture, which only give a hint of the third dimension, to overall solutions that completely separate or close a scene. In addition to separating compositional parts from the environment by closing a scene into a single whole, painted architecture can simultaneously make an internal organization of the obtained volume. The painted objects, with the way they are placed and spread their masses, can influence the formation of the structure of the picture, arranging the space of the content of the composition. This, of course, represents a higher category of the function of painted architecture, not always achieved in all compositions.

If a single moment is represented on the picture, the task of painted architecture is simple. By grouping the volumes, a smaller or a bigger depth is defined for the represented event to be located at, possibly simultaneously with the placement and directioning of the represented volumes and forms, pointing to the ideological core of the image.

The task of painted architecture was significantly complicated if a more complex action was represented in the picture. If several different actions take place in the composition, then organization of the space is significantly more difficult. Painted architecture, in addition to the general frame it ensures to the composition, can also divide the specified space according to the contents shown in the picture while emphasizing its ideological core.

Scenes that have certain common features, but each of them still represents a content-independent whole, are often presented in a continuous sequence. In this case, painted architecture has a multi-layered and particularly complex role.

The constructive lines of the inverse perspective projectively coincide with the ideological core of the image, and thus are returned to the observer's space. However, since only partial focuses (vanishing points) were used in this construction, other constructions were often combined with the inverse system, the converging of the projective lines was not taken literally and certainly not consistently implemented. Because of that, the center of gravity of the compositional structure of the image was often not possible to be achieved in one point, but in a limited area formed by the focal points. Sometimes, despite the obvious intention, the content core of the image is emphasized by appropriate converging of the projective lines from painted architecture - most of them, due to the large number of focal points - do not coincide with the conceptual center of gravity of the image, but related to it, are slightly displaced. Even with the clearest constructions, where bundles of projection lines together with their vanishing points come closest to the content centers of the image, due to the absence of a single vanishing point in space, the possibility of reducing the compositional core to a single point is excluded. The compositional core is limited to a smaller area to which a number of bundles of projective lines focus, forming the partial vanishing points.

In the inverse perspective system, formal inconsistencies and any kind of distortions of forms compared to what we would see from a single viewing point become irrelevant. What becomes relevant is that inverse perspective represents the impression of an object observed from several sides.

3. RESULTS

As basic rules in representations of the space constructed in inverse perspective, we note and single out:

• Horizontal and vertical movement of the eyepoint

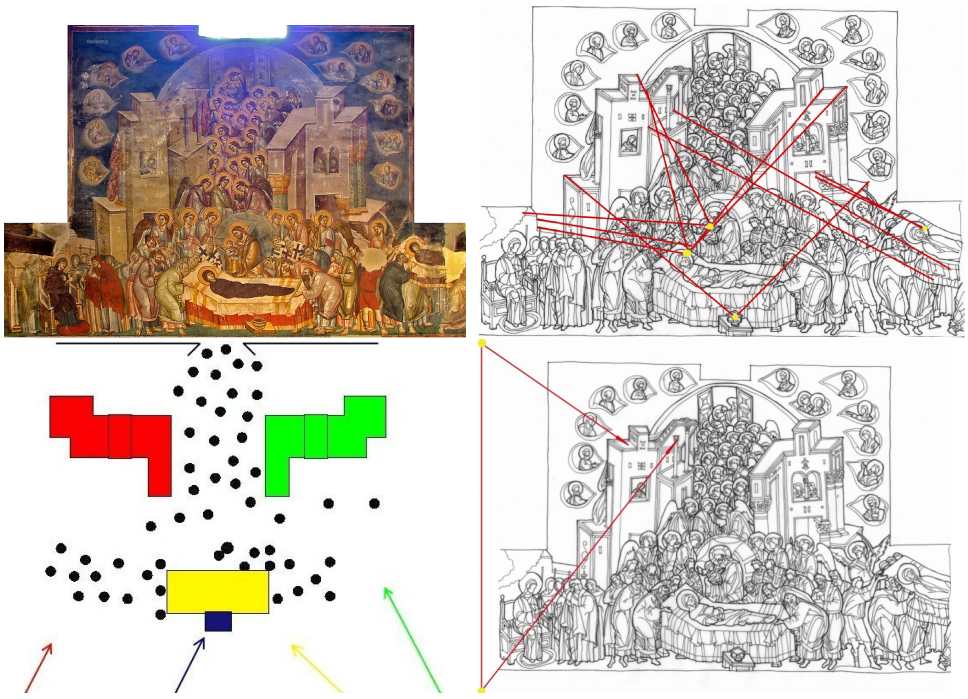

Figure 5. *Graphic analysis of the focal points in the composition and the movement of the eye point horizontally and vertically on "The Assumption of the Virgin" fresco, St. Virgin Perivleptos, Ohrid*

The composition "Assumption of the Virgin" from the Church of St. Virgin Perivleptos in Ohrid, summarizes all the efforts put into the 13th century painting. The tendency to emphasize the depth as much as possible, at the same time concentrating the projection lines so as to underline the conceptual center of gravity of the image using the system of inverse perspective is apparent. Clarity, visibility and value of the compositional and architectural structure that has been achieved here represent the greatest reach in a specific way in exploration and interpretation of space. Courage in collecting new possibilities and reliability in the use of projective constructions resulted in a skilfully realized architectural space. Placement of architectural masses in such compositions containing separate content episodes has the role of organizing the space of the image in a way that will clearly let the observer know where one content episode ends and where the next one begins, without disturbing the unity of the painted setting, even though the episodes are not separated by a classical frame.

Considering the position of the focal points of the projective lines, it can be concluded that as a result of the effort to realize a more complex architectural whole, master painters were not able to fully organize the directioning of all the masses towards the several selected ideological cores in the composition. Instead, several directions were chosen that emphasize the ideological core through focuses, and most of them only limit the space around the main action and characters. The fresco shows the Holy Mother of God on her deathbed simultaneously represented as a child in the arms of Christ, thus transforming herself into his soul.

The movement of the eyepoint in the construction of this composition is clearly emphasized. The two presented architectural objects are presented as if they were seen from different sides. The same thing happens with the deathbed of Holy Virgin and the table in front of her. The eyepoint is moving both horizontally and vertically. Some parts of the object are represented as seen from below, and other parts of the same object seen from above. Such constructions complement the feeling of sublimity when viewing. - Figure [5]

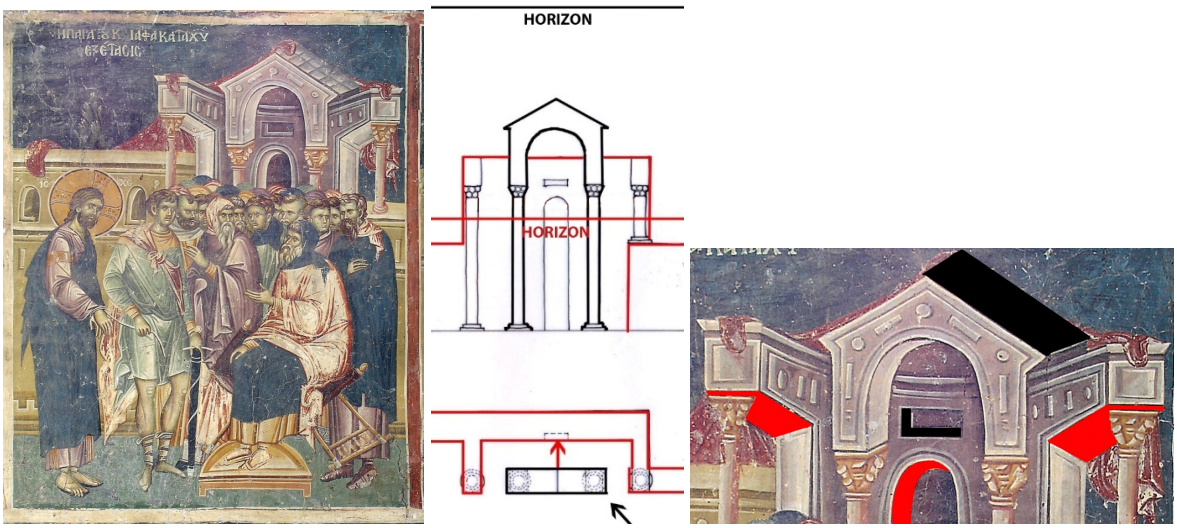

Figure 6. *"Christ before Caiaphas" - analysis and detail - St. Gjorgi – village. Staro Nagorichane*

The kineticity of the eyepoint in space makes the architectural forms appear as seen at different angles horizontally and vertically as well as at different distances, even if they are parts of the same object. - Figure [6]

• Conditional switching of the eyepoint to the other side of the projective plane (the space is still presented as if viewed from the front)

• The vanishing points are replaced with focal points that focus in the space of the viewer

Figure 7. *"Assumption of Blessed Virgin Mary" - mosaic, Saint Savior in Chora, Constantinople*

• The parallel projective lines diverge in distance and converge towards the space of the viewer

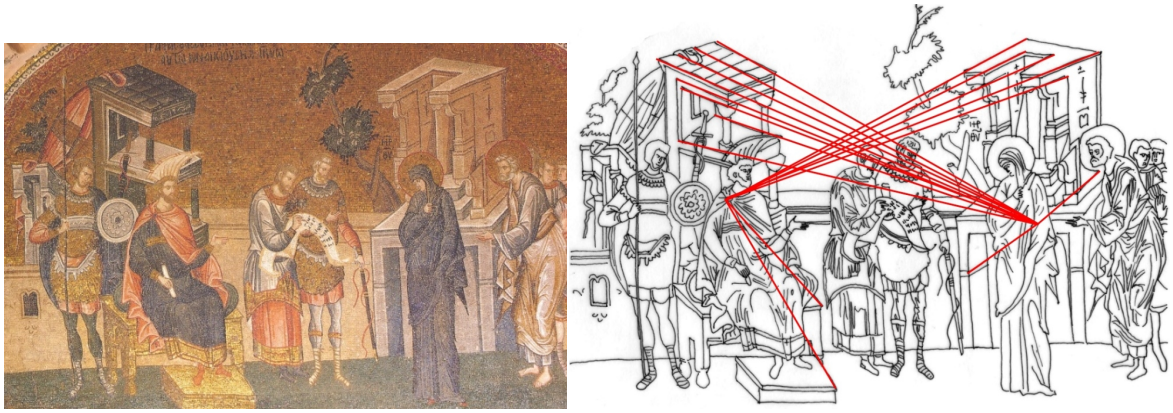

Figure 8. *"Enumeration of the Tax" - mosaic, St. Savior in Chora, Constantinople*

• The Focal points are used to emphasize the main characters and actions presented in the picture - Figure [7] and Figure [8]

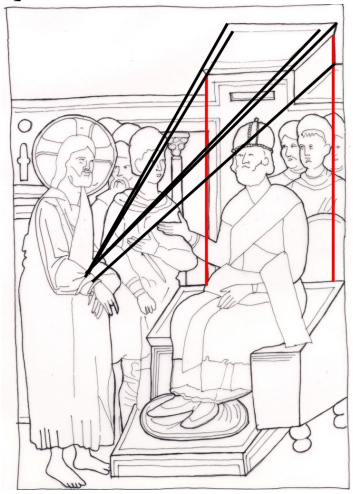

Figure 9. *"Herod Examines Christ", St. Gjorgi – village. Staro Nagorichane*

One of the main roles of painted architecture in fresco paintings is separation of the composition from the surrounding space by closing the scene into a whole, but it can simultaneously perform the internal organization of the volume obtained in this manner. It influences the formation of the structure of the image by arranging the space of the content of the composition using the position and directions of its surfaces. Thus, on the example of the fresco Herod Examining Christ from the Church of St. George in Staro Nagorichane, the painted space using simple means affects the definition of the scene. The background wall includes one distinctive – taller part. The position of this architectural eleement emphasizes the position of Herod, and at the same time the focal points generated by its projective lines are focused on the tied hands of Christ, and so, with the help of a single architectural element in the background the two main caracters and the depicted action are emphasized. The fact that the same architectural element emphasizes both; they are simultaneously connected but with an emphasis on their essencial difference of character. - Figure [9]

The second example that shows how intersection of the projective lines of the painted architectural background creates focal points that emphasize the main character or action depicted in the painting is the fresco "The Last Supper" from the Church of St. George in Staro Nagorichane.

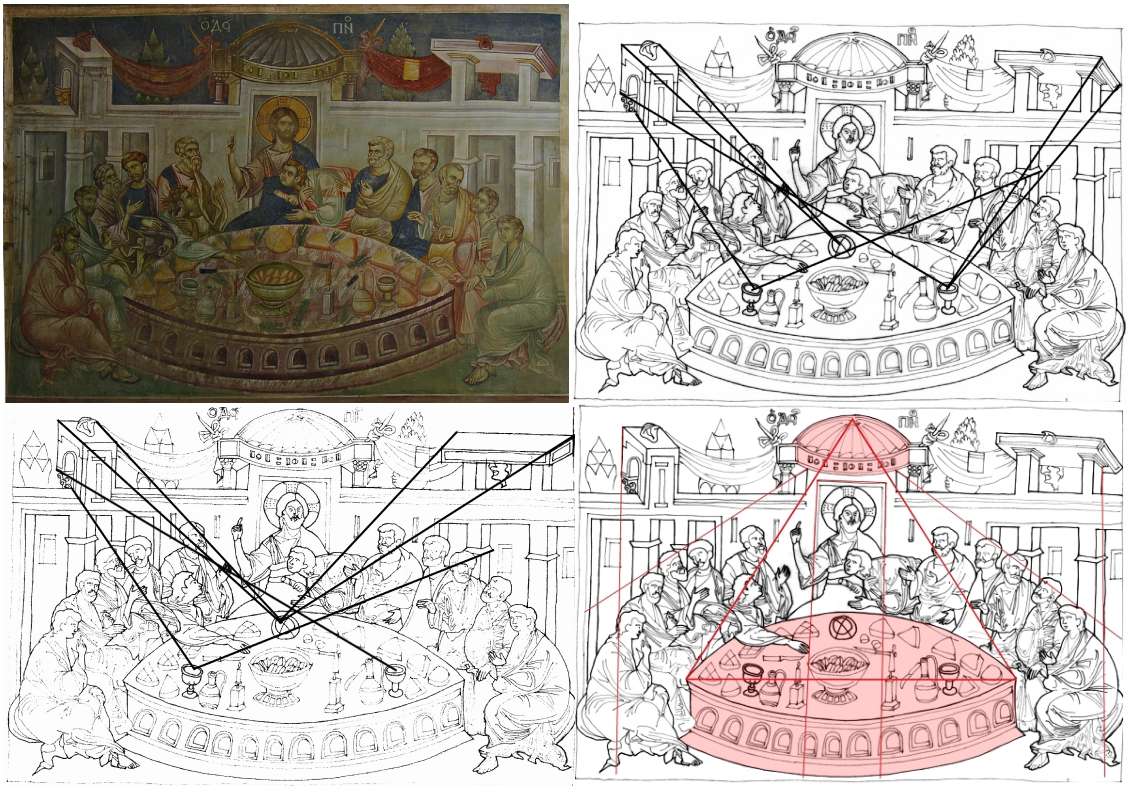

Figure 10. *"The Last Supper", St. Gjorgi – village. Staro Nagoricane - graphic analysis*

Through graphic analysis of the painted architecture, its projective lines and the generated focal points, a new hidden world of information is revealed to us. The obvious layer of information tells the story of the depicted historical event. The hidden layer contains the deepest theological thoughts. The directions from the painted architecture focus in the bread and wine discreetly representing the hidden meaning behind the obvious.

In this fresco, it is noticeable that the system of dynamic contrasts passes from continuous scenes to such separate compositional units. It is applied in the treatment of lateral objects and by means of moving the eyepoint vertically from a high viewing position (view of the object from above) constructed with the inverse system, to a low (view of the object from below) constructed with "normal" vanishing points. Some of them focus on the elements that need to be emphasized, and some focus on vanishing points somewhere in the distance on the horizon, visually breaking through the wall plane. However, the use of the system of dynamic contrasts emphasizes the conscious avoidance of the "realistic representation" of the space. Graphic analysis shows how the composition would look

if the painted objects had a common focal point. The objects in the background of the main event, in addition to providing a spatial frame and limiting - determining the space of the depicted action, also compositionally organize the image using the directions of the projective lines of the inverse perspective.

Pavel Florensky in the book " Inverse Perspective" states:

"When two or three icons, with approximately the same translation and more or less the same artistic mastery, are placed side by side, the viewer can with full certainty notice the enormous artistic advantage of that of the icons in which the violation of the rules of perspective is the biggest, while the icons with a "correct drawing" look cold, lifeless and deprived of the closest connection with the reality depicted in them"

The space within which the presented event takes place is clearly limited and the compositional frame of the picture is defined by the painted architecture in the background of the main event, as well as by the stretching of the network of projective lines through the painting.

Symbols of Christian iconography are hidden in the painting.

The symbol for the Holy Trinity- the equilateral triangle - is hidden in plane sight in the fresco.

The table - a symbol of earthly splendor and well-being, as well as the dome - a symbol of the heavenly kingdom. - Figure [10]

• The directions from the painted architectural backgrounds are used for compositional organization of the painted space - Figure [11]

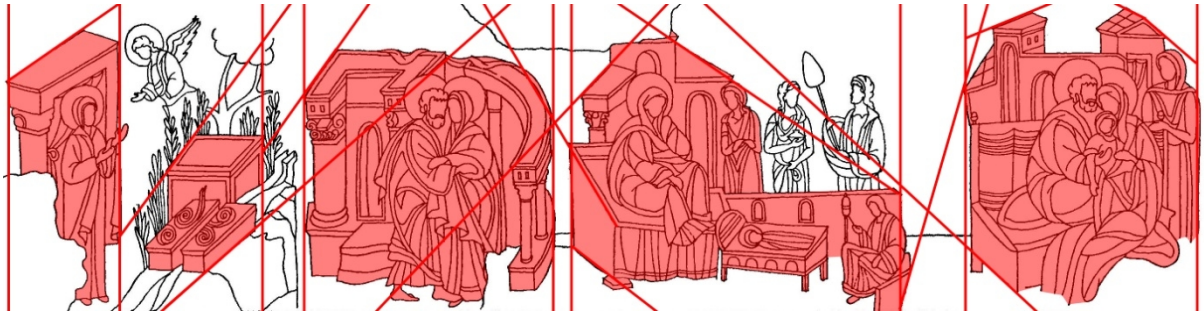

Figure 11. *Compositional organization of the fresco painting "Scenes from the Life of the Virgin" in the Church of the Virgin in Gradec*

• The architectural objects in the background of the presented action assume the role of organizers of the time and content order of the independent content episodes in a composition

In the analyzed fresco, the positions of the eyepoint are carefully selected and fixed at higher positions for all the painted objects, so that the painted architectural forms are seen from above and their surfaces focus towards the center of the events. Although there is no vertical movement of the eyepoint, separation of the individual scenes is done through the very placement of the architectural objects in the background of the composition. This division is complemented by each object being painted as if seen from a different point of view offseted horizontally from the neighboring, visually delineating a distinct setting for each episode in the otherwise unbroken sequence. The kineticity of the eyepoint is emphasized by the fact that the eyepoint moves horizontally even when it is a single object as is the case with the first object next to the fountain on the left side of the fresco where the part above the pillar is seen obliquely from one position, and the part below the pillar is presented frontally as if viewed from another position.

The tendency of visualy deviding the composition into independent episodes using painted architecture in the background is complemented by a different emphasis on the inverse perspective in the neighboring objects. In some of the presented objects the perspective is is strong and the focal points are located on one of the conceptual cores of the composition, and in some objects, it is mild and approaches a different graphic system where the directions do not focus but are parallel - the previously elaborated oblique projection. The partial use of elements from the medieval inverse perspective in the structure of a picture that is almost entirely in oblique projection forms a logical whole, because those two projective constructions naturally complement each other in the pictorial

conception of the architectural space and it would look almost realistic if the usual disproportions did not exist between the painted architecture and the human figures, which complements the desired unreal character of the represented. - Figure [12]

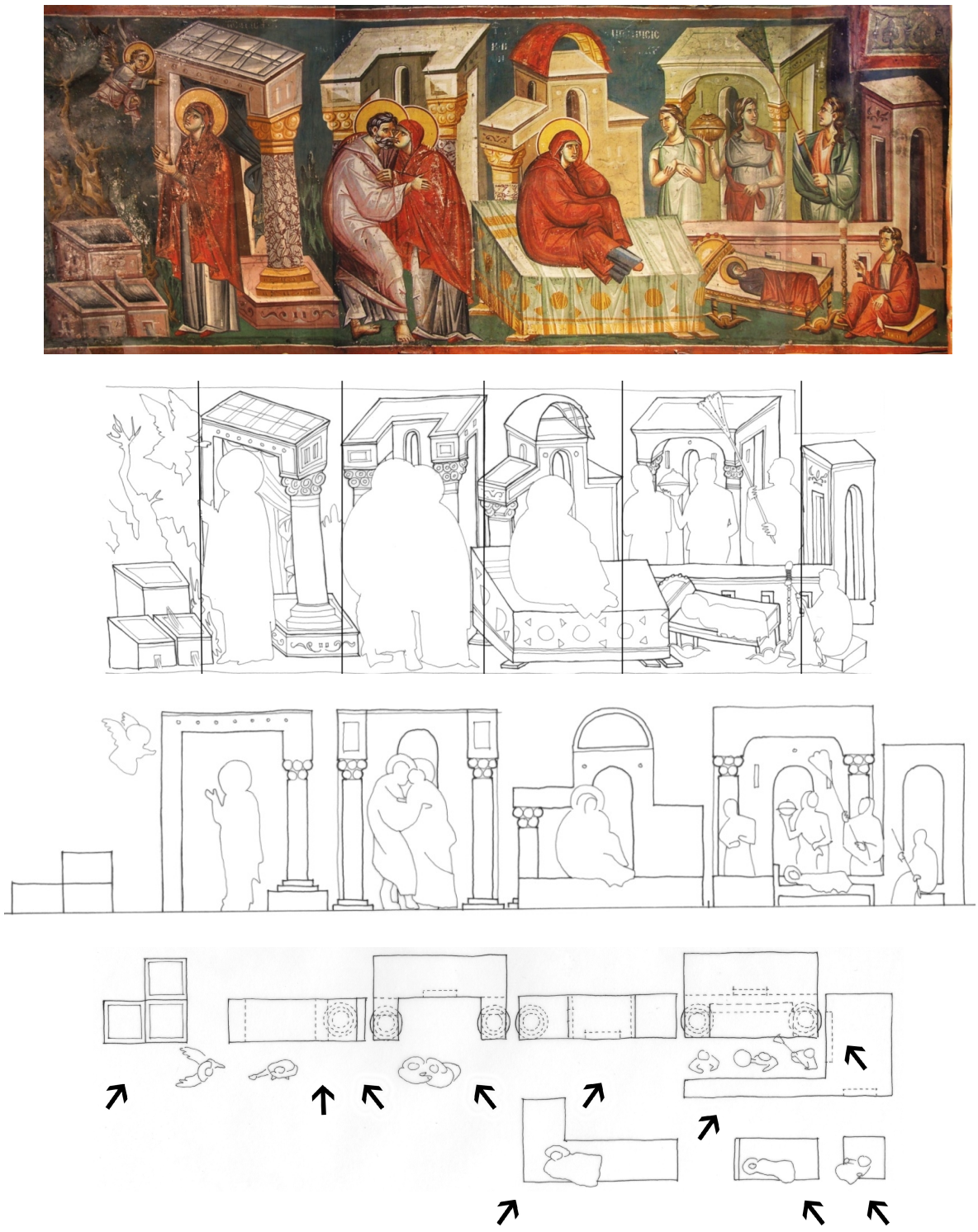

Figure 12. *Analysis of the fresco depicting scenes from the birth of the Virgin, St. Virgin Perivlepta, Ohrid*

• **In Byzantine painting, several graphic systems for representing space co-exist in parallel (semantic perspective, cross and orthogonal projection as well as perspective with vanishing points)** - Figure [13]

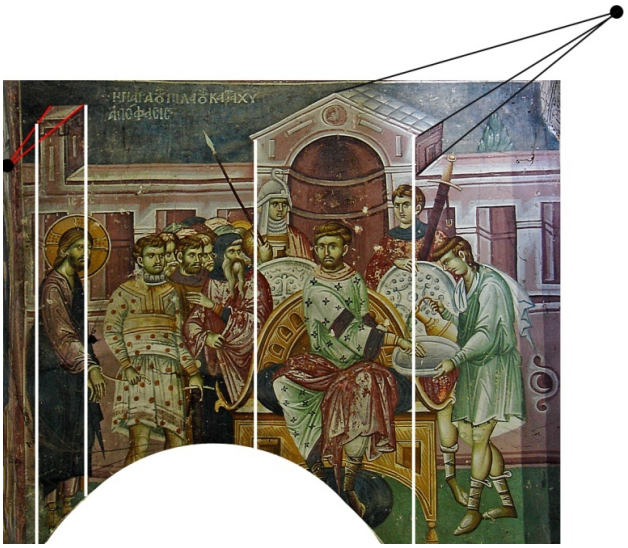

Figure 13*. Coexistence of inverse perspective and perspective with vanishing points on the fresco "Christ before Pilate" from St. Gjorgi in Staro Nagorichane*

• The main action is emphasized by the direction of the projestive lines of painted architecture

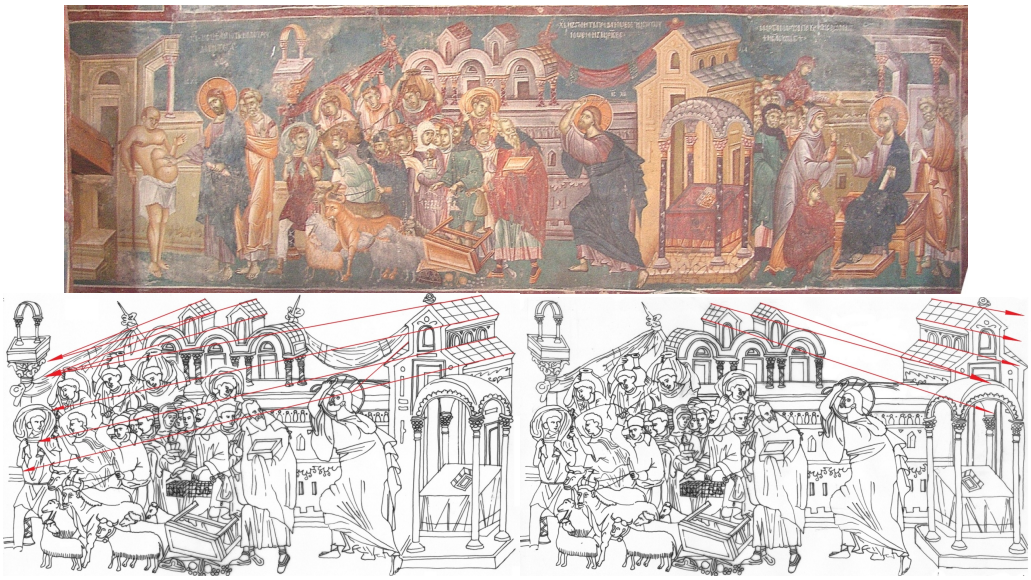

Figure 14. *Analysis of the fresco " The Expulsion of the Merchants from the Temple", Saint Nikita, Gornjani*

In the fresco "The Expulsion of the Merchants from the Temple" in the Church of Saint Nikita, village of Gornjani, the painted architecture is also used to emphasize a dynamic moment. In this fresco, the projective lines of the painted architecture are directed towards the movement of the group and thus emphasize the depicted action. - Figure [14]

• Simultaneous viewing is replaced by successive experience of the painted space

4. DISCUSSION AND CONLUSION

The inverse perspective as an aesthetic form is a product of a long maturation process. It is not a sudden, instant creation of Byzantine culture. Such refined abstract stylization of objects and architecture reveals the social functionality of this system.

All perspectives, whether they deal with the rational and objective or the unpredictable and subjective, rest on the desire to construct an image of space. In that space, the inverse perspective

refutes the distance between the eye and the depicted objects, refutes the height from which the objects are seen, it denies the materiality. It creates a new world of perspectively drawn objects in the eye of the beholder. That refutation is visible in the mobility of the eyepoint in all directions. By moving the eyepoint horizontally, the painted objects are presented as if they were seen from different sides, and in this way the effect obtained is used for organization of separate content units as part of a composition in a way that will not disturb the unity of the presented. Since the eyepoint is transferred to the space behind the projection plane, constructive lines are created in the painting space that focus in the space on this side of the painting surface, in the space from where the image is observed. As a consequence of this shifting of the eyepoint, the images in inverse perspective, the painted characters and objects come forward, conquering the viewer's space, and the viewer is drawn into the space and time of the presented action, which represents another layer of denial of the materiality of the painting surface. Those focal points are used to emphasize the ideological core of the image, be it a person or an action. In that space, the objects are presented as an experience, not as a static image. The space constructed in inverse perspective does not reduce the artistic phenomenon to solid and mathematically precise principles and it remains dependent on people and affects the psychological and physiological state of the visual impression in a very specific and subjective way. The inverse perspective is not an object of artistic or aesthetic pleasure or delight, it represents a message. While a person looks at a picture in inverse perspective, spiritual space envelops him and he knows unequivocally that he is in a Holy place.

Inverse perspective does not mathematize the visual space, does not order the represented space of the visual phenomenon and does not treat it as an ordinary appearance. It represents "real existence" and not a mere representation of seen things. Inverse perspective is a free-spirited idea of form. Through this specific transmission of artistic subjectivity in the domain of the phenomenal, it opens religious art to the world of the magical, where the work of art does not function as a miracle for itself, but it does so in the world of the dogmatic and symbolic.

In modern understanding, perspective becomes more a mathematical than an artistic problem. Relative imperfections, even the complete absence of a geometric perspective construction, have nothing to do with artistic value, and vice versa, strict rule of the laws of geometric perspective, in no way lead to artistic "freedom" and value of the painted. That is why perspective should be understood as a stylistic rather than a value factor. The inverse perspective should be understood as a "symbolic form" in itself in which "spiritual meaning is associated with a concrete material sign to which it is essentially attached."

It is clear that "aesthetic space" and "theoretical space" represent the experience of space as a result of the same stimulus, but in one case that stimulus is visual - symbolic, and in the other a logical form. In this way, the more perspective ceases to be a technical and mathematical problem, the more it becomes an artistic problem and vice versa.

Different perspectives are a consequence of centuries-old human struggle and are a mirror of the great antitheses such as free will against rules, irrational against rational, individualism against collectivism, and are the reason why different eras, nations and individuals have taken such categorical and obviously different positions on the issue of perspective.

The space in these artistic representations is determined by the subject. Such representations of space were not the result of ignorance of the laws of optics, nor the lack of knowledge to paint a "photo-realistic" space, but rather were the result of the lack of need for such a form of illusionism.

The underpinning of this system in the field of the physiology of vision is found in the mobility of the eyepoint. Human visual perception boils down to assembling countless different sharp images of the observed space or object into a single mental image of space, much like the way inverse perspective treats it. The space represented in the geometric perspective, on the other hand, (mathematically accurate and comparable to reality), does not correspond to the real perception of that space; on the contrary, it reduces it to mathematical space. Hence the impossibility to compare the elements of the space constructed in the inverse system with each other or with the real space as the geometric perspective does, but here it is possible to know the essence of how the master painters understood and interpreted it.

Considering that between two views of the same object from two different sides (as we actually see in reality) time passes and already at the second view the object we see is different, this graphic system also finds support in philosophy.

Analogies between contemporary painting trends and inverse perspective can be sought and found. Many centuries later, some of the above-mentioned principles for representation of objects and space become the guide of the great masters of contemporary art; cubism re-affirms the questions of space perception posed by the Byzantine masters through the inverse perspective by introducing a moving eyepoint, expressionists reject the geometric perspective because they felt that it affirms objectivity... Such analogies can also be found in the treatment of space which computer-generated perspectives have, so one can say that inverse perspective represents a Byzantine form of modern virtual reality.

REFERENCES

[1] Arnheim R. (1974): Art and Visual Perception: A Psychology of the Creative Eye: The New Version, London, University of California Press.
[2] Florenski A.P. (2002): Obratna Perspektiva; Ikonostas, Veljusa, Manastir Presveta Bogorodica Eleusa (in Macedonian).
[3] Gombrich E. H. (1982): The Image & the Eye: Further Studies in the psychology of Pictorial Representation, New York, Phaidon Press Inc.
[4] Ivančević P. (1996): *Perspektive*, Zagreb, Školska knjiga, (in Croatian).
[5] Korac V. (2003): Spomenici Monumentalne Srpske Arhitekture XIV veka u Povardarju, Beograd, Republicki zavod za Zastitu Spomenika Kulture (in Serbian)
[6] Panofski E. (1997): Perspective as Symbolic Form, New York, Zone Books.
[7] Pepek M. P. (1967): Deloto na Zografite Mihailo i Eutihij, Skopje, Republicki zavod za Zastita na Spomenicite na Kulturata, (in Macedonian).
[8] Stojakovic A. (1970): Arhitektonski proctor u slikarstvu srednjovekovne Srbije, Novi Sad, Matica srpska, (in Serbian).
[9] Tresidder J. (2001): Recnik na simboli, Skopje, Tri (in Macedonian).
[10] Uspenski L. (1994): Teologija na ikonata, Skopje, Tabernakul (in Macedonian).

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