Abstract

The analysis of works of visual art illustrates typical groups of elements and interrelations, which form semiotic systems of these works. Specific systems of connotations and their relations with semantic structures, paradigmatics, and typical signal structures are described. Like in linguistic texts, different levels are formed in complex images. The following basic level types are distinguished: sems and other units of semantic level; signs subdivided into: icons of represented objects and connotative sign formations; representamens of basic signs as interpreted by Charles Peirce, including those of connotations, and signals referred to as basic perceptive integer units forming an individual level.

There are several approaches to semiotic analysis of visual art works. R. Arnheim (1974), considering this analysis from the viewpoint of Gestalt psychology, specified a fundamental character of ‘visual estimations.’ Meyer Schapiro created the fundamentals of semiotic analysis of visual art works. He revealed the relations between their semantic structures and visual material; the analysis of pictures by Seisanne is the most apparent illustration of that. We can also mention the trends in the description of universal logical systems of visual information by Gross (1973). There are systems of a description of different units of pictorial semiotics by Sonesson (1989, 1993) and other directions in the studies of visual semiotic systems. Some of them gravitate to semantics, some to the level of signs and representamens, and others to formal structures corresponding to the traditions of Max Benze’s informational aesthetics. At the same time, a general advanced picture of semiotic systems of visual arts should be created for the integration of concepts of human verbal and semiotic systems. The substantiation of stable semiotic structures, units, and elements of visual texts will enhance our movement towards a
semiotic description and understanding of human psychic world and culture as a whole.

The experience of the author in semiotic analysis of architecture (Somov 1985a, 1986, 1990) and interrelations among semiotics and aesthetic phenomena and concepts (Somov 1985b) makes it possible to specify what the semiotic systems of visual art are. The results of empirical studies demonstrate that these semiotic systems are described with the help of stratification models. Simplifying, it is possible to say that a visual artwork is a semiotic system, which reveals different levels and systems with inherent structures, units, relations, and elements.

Semiotic systems can be considered in the realities of both single masterpieces and many works or systems of a language type.

Like in linguistic texts, different levels are formed in complex images, such as pictures, cinematographic shots, or theatre scenery. The following basic level types are distinguished: (1) sems and other units of semantic level; (2) signs subdivided into: (2a) icons of represented objects and (2b) connotative sign formations; (3) representamens of basic signs as interpreted by Charles Sanders Peirce, including those of connotations, and (4) signals referred to as basic perceptive integer units forming an individual level in some semiotic concepts (Eco 1976) and its interpretation in the article of Sharov (1999).

The most important elements can be found in icon painting (Figures 1–9).

Connotations deserve a special attention. Connotativity of semiotic systems of visual art seems to be clear and traditionally known. It is enough to refer to Chinese mediaeval theoretical tractates on painting where special attention was given to anthropomorphic images hidden in landscape. European mediaeval tractates said much about implicit signs in the forms of Gothic architecture (Siger of Cremona, Honorius Augustodunensis, Guillaume Durand), which are related to general Gothic ideas of divine texts opened to people by means of architecture and mystic thought of the Middle Age. The medieval mind spelled the world and tried to incorporate implicit images of chimeras, elves, curative plants, and various magic signs into complicated Gothic forms. The importance of these facts for the theory of semiotics is not yet understood. It is reasonable to suppose that visual connotations and, first of all, those based on implicit iconic signs, form a significant phenomenon of semiotic systems, which is comparable to recently examined connotations of verbal discourse hidden from direct perception and consciousness (Danesi 1999).

Earlier, I tried to demonstrate (Somov 2002) that, in general, distinguished levels and systems reflect present differences among levels in the
frames of stratification approach of semiotics (Prieto 1964). Various units of visual texts and languages (like those of linguistic systems) are affected by codes (Bignell 1997; Hall 1980; Chandler 1994) and related mechanisms of structural transformations (Somov 2001; Somov, in press). First of all, this approach develops the ideas of Hjelmslev (1961) and his school regarding signs as incarnations of more fundamental units, which, in their turn, represent the incarnations of structures (Martynov
1966). This corresponds to the concept of codes, as well. Put simply, a masterpiece of visual art seems to be made of different structures; interacting, they materialize the nodes of their intersections. This represents real interrelations of mental structures, codes, and signs of different integration levels. Structures and units of semantic level, which determine text communicative structure (Kamenskaya 1990), are supported by structures and groups of concrete visual elements and their interrelations.

Figure 2. ‘Holy Trinity.’ Connotative sign formation — sacrificial flame
Considering their connotativity and connectivity, these semiotic systems constitute concrete semiotic formations: art texts (Lotman 1970) and art systems of a language type. Like the studies of other semiotic systems, the examination of systems of visual art presupposed the differentiation and interrelations of three aspects: pragmatics, semantics, and syntactics. These aspects have already been examined by the author as related to the creation of art works (Somov 1990). When studying these systems, it

Figure 3. ‘Holy Trinity.’ The basic icon of the picture and its system. Sacrificial chalice
is also necessary to analyse the formation of communicative situations based on the structure of communicative acts.

These statements resulted from the analysis of different masterpieces of visual arts conducted by the author and Eugeniy Barbyshev in 1970s and 1980s. The text below includes some results of this analysis supporting theoretical postulates.

The most efficient way to study semiotic systems of visual art of different levels is to examine the art works with known subject-mythological
basis, interpreted in art studies, and carrying definite semantic structures. They contain the most complete manifestation of various layers of visual texts: expression of generalized symbolic ideas, development of subject-mythological direction, and concrete ethnocultural object environment. These peculiarities became very apparent in Russian painting in late nineteenth and early twentieth centuries.

Figure 5. ‘Holy Trinity.’ Connotative sign formation — bear muzzle. Organizational lines — representamens of the connotation (holy image is victorious over general symbol of shamanism). There is the author’s historico-semiotical argumentation of connotations of this picture. It requires an independent large statement.
Boyaress Morozova by V. I. Surikov is one of the most important masterpieces of that period (Figure 10). The great painter addressed to a dramatic episode of Russian history. The opponents of church reforms of seventeenth century claimed against church politicization and stood for old religious traditions. According to the order of Tsar Alexey, Fedosia (Theodotia) Morozova, a heroic lady and adversary of reforms, who supported the leader of traditionalists, protopope Avvacum, was

Figure 6. ‘Holy Trinity.’ Semantic system of looks and its elements
enchained and imprisoned together with two other boyaresses. Later on, she died of hunger. Her farewell with people became the subject of the painting.

Basic semantic structures of the picture, determining the structures of other levels, represent the idea of opposition. The opposition of spiritual leaders and people to state power and the sympathy of people to those who lost the struggle against the state and official ideology are
typical for Russia in crucial points of its history and are manifested dramatically. This is why this subject became so significant in the nineteenth century when complex social contradictions became apparent in Russian society. In connection with this, semantic structure of oppositions and differences are so important in the semiotic system of the picture.
First of all, the opposition of the boyaress to the ambience is very important. Researchers interpret Morozova’s black clothes as her contempt for human feelings (Kemenov 1963: 110). The black image of boyaress is opposed to a multicolored crowd making her a semantic centre. Setting for a pale face expressed in an active configuration of the whole black image is a major sign opposed to the background (Figure 11). Her black
image corresponds to the main metaphor. In general, the first idea of the picture emerged when the painter saw a black crow on the background of white snow (Nikolaiy 1918).

Surikov represented a crowd of people as a bright totality of different characters and social positions. But the major part of the mass is a suffering suppressed people sympathizing with the martyr — this is the description of the basic meaning of people image given by the critics (Alpatov
Certainly, the crowd includes many occasional ignorant onlookers. But the major mass of Surikov’s people condoling with the boyaress are destitute ones; according to the critic Stasov, ‘humiliated and aggrieved,’ ‘all small and pitiable’ (Stasov 1952: 400); ‘poor, old, bewailing, and oppressed Rus’ is truly painted here’ (Stasov 1952: 401–402). Critics point out that ‘within the crowd, a social emphasis is made on a beggar woman and God’s fool. Removing them from the crowd would produce quite another impression’ (Kemenov 1963: 111). These two persons form the main meaning representing folk compassion to the heroine.

In general, the representation of people and complicated manifestation of its feelings and characters became a basic semantic component of picture design and affected its composition. The picture of people as a whole is combined with denotation and expression of various individual images, characters, and emotional states. This unity of multitude is represented by sign forms of human silhouettes, in diversity and identity of representamens of these signs (Figures 12–15). A multicolored crowd is organized into large chromoconfigurations, creating a visual heterogeneity to the artwork. At the same time, key symbolic images, faces and things are distinguished and stressed within the color mosaic (Figures 16 and 17).

The complexity of colour combinations and forms is more than object representation. The painting contains hidden connotations possessing their own semantics related to the main idea. They are formed according to the regularities of structural organization of syntactics. Let us demonstrate these hidden connotation systems.
The two-finger sign of the cross is the main symbol of Old Ritualists and their opposition to the state church. This is why the boyaress lifted her hand with two joined fingers blessing the crowd. The gesture of God’s fool represents an adequate response. This sign system, being very significant in picture semantics, was developed in its general composition (Figure 18). Constructive elements are trapeziform (Figure 19). The inclusion of human images in sign formations of this connotative system...
corresponds to an ancient iconic tradition of representing humans as God’s fingers and their faces, as nails (Figure 18).

Another important connotation refers to the signs of Theotokos (Virgin Marie) who is the patroness of all needy and humiliated (Figure 20). In Byzantine and Russian icon painting, this sign is Holy Mother’s head cloth. Theotokos was addressed to as folk patroness since the twelfth
century. At that time, the duke Andrey of Bogolyubovo developed the Byzantine tradition of the Holy Protection, which is associated with the head cloth covering defenceless people. The symbol of Holy Mother appears as a woeful female image with a covered head. Repeating images of

Figure 17. ‘Boyaress Morozova.’ Essential icons — strelets pole-axes and its system. Organizational lines are representamens of this system

Figure 18. ‘Boyaress Morozova.’ Connotative sign formation of the picture. Two-finger Cross sign as a major sign of Old Ritualists. Two risen fingers of boyaress Morozova blessing the people denote the firmness of oppressed persons. The configurations of human images are similar to two-finger Cross signs (faces look like nails); the latter likelihood can be compared to the ancient symbol of God’s hand where humans were represented as fingers and nails, expressing thus the idea of divine origin of mankind
this kind are signs of sorrowing martyr and protectress of oppressed persons. This is why general composition of the picture contains hidden chromoforms resembling a covered woman. The representamens of this very important connotation subdue basic form-generating lines of the picture. An ambulant sorrowful image in a multicolor mosaic of the painting relates text semantics, signs, and their representamens and forms large
configurations and lines organising the whole picture. The most significant element of this connotative system is a concrete symbol: the icon of Theotokos in the upper right corner of the picture. This sign forms an element of communicative situation, which is indispensable to interpret a general connotation.

Another connotation is interrelated with the spatial composition of the picture. Diagonal composition with a strong movement of dark sledge contrasting with the snow is the index of way (Figure 21). This movement takes the heroine to the future. Such a pronounced spatial movement makes the metonymy of way to the future one of the central ideas of the picture. In Christianity, this way leads to the doomsday, and a trumpeting Angel is the main sign of this event, according to the Apocalypses. Implicit signs of trumpeting angels can be guessed in the picture images (Figures 22 and 23). The general symphony of the artwork seems to be accompanied by trumpet sounds; in the same manner, they outline the most important dramatic events in European operas of that time.

Sorrowful and compassionate people is opposed to gloat faces; in the same manner, divine symbols are opposed to anti-Christian sign formations related to the powers of evil. The configurations of Theotokos sing, gently rounded off, contrast with sharp-cornered, ragged, and protruding configurations adding emotional tension. The forms of this kind were traditionally used in icon painting to denote the devildom. Nimbi of saints and angels were opposed to discrete and acute angled figures of evil forces denoting disrupted auras. In the case examined, these forms are the representamens of more concrete denotations of the force
traditionally opposed to the Orthodox Christianity: heathendom. The picture of crowd and landscape seems to hide the muzzles of wolves and deers (Figures 24, 25, and 26). Animal skins were the clothes of shamans seen by the painted in the period of his youth at the Yenisey River, when he frequently hunted. Many art connotations of Surikov have formed in Siberia (Tepin 1977). This semantic connotation has another explanation: dark beast instincts and forces are intrinsic to the crowd in general. The tension created by sharp-cornered signs complements general semiotic
opposition of sorrow and gloating. Like other connotations, these sign formations create developed element systems with their own syntactics expressed in complicated decorative ornaments.

The genesis of connotations in visual art works can probably be explained by the necessity of a developed organization of a layer of signs,
which tend to become representamens of sign formations of connotations. Eagerness to ‘formal’ syntactics, organization, and developed ornament of the picture enhances an unconscious search of developed connotations related to each other and to major semantic structure of visual text.

In sign media used by great painters, general regularities of organization of visual texts always correct proper iconic media with their authentic representation of visual reality. In Surikov’s oeuvres, this is a pointedly rough manner of representing people and objects.

Seeming defects of painter’s drawing, criticized in his time (disproportional images of humans, rough manner, or absence of plastics of human bodies) turn into merits under the conditions of developed connotative systems, syntactic structures, and coloristic unity. They form specific sign media of art language. Contemporary investigators note that this rough and natural manner of images of Surikov’s paintings resembles the poetics of Dostoevsky (Allenov 1997: 53). These features have anticipated some directions of Russian twentieth century painting (Sarabyanov 1980).

This analysis demonstrates that connotative visual codes, metaphors, and metonymies are, to a great extent, the elements of semiotic systems of visual art. Connotations, completing idea and subject, are related to a general design of an artwork and thus, are logic within the structure of art text. Basic features and configurations of connotative systems have no definite designates, which become concrete in the process of their interpretation due to semantic structures of a text and paradigmatics of multiple signs. In the process of analysis, the author tried to reveal visual

Figure 26. ‘Boyarsess Morozova.’ Connotative sign formation of the picture (variant 3). Signs of evil forces. Animal muzzles. Organizational lines are representamens of this connotation
systems of representamens; their active development also strengthens signs and specifies their semantic fields. Being developed in the systems of representamens of picture signals, the connotations become more and more related to each other and to the structure of art text. The representamens of depicted objects follow general structures, which are not visible directly but form text basis. These are the systems of large two-finger signs of Cross, which organize the picture and form its rhythm (Figures 18 and 19). In the same way, the system of configurations of the covered lady’s image is not only the sign of Mother of God, but is a visually organizing basis of the picture. Types of these integralities in visual texts are similar to those of linguistic systems (Sapir 1930). In my previous works, I tried to demonstrate that the configurations possess their own systems of interrelations in visual art; lines are organized into layers, while dots and centres form their own visual syntactics (Somov 1975). Basic groups of visual integralities tend to the level of either representamens or signals (Figures 12–15). But their interrelation is the most important. Basic representamens become involved into developed interrelations in the systems of basic visual signals (Figure 13). First of all, basic elements of the picture are interrelated with painting size (Figures 12, 14, and 15). The dissection of a large picture into rectangles organizes the fragments of visual information and affects the grouping and character of human images.

In the organization of visual art texts, the major regularity of interrelations between the layer of signals and the layer of sign representamens is based on a general constructing role of fundamental mental structures, as I have already tried to substantiate (Somov, in press). Different types of identity (symmetries, proportions, geometric similarities, numbers, organizing lines, axes, and centres, etc.) form the structures, which help to construct systems of different levels and are interrelated with differences, i.e., identities of semantic level. The analysis represented above seems to demonstrate this role of structures quite obviously. It is possible to organize groups of active elements and relations (signals) by including the relations of representamens of significant signs. For example, if a geometrical similarity of trapezes of two-finger sign of Cross is created, the connotation of implicit sign in enhanced. If geometrical similarity of rectangles, framing the anthropomorphs, is strengthened, the system of given human images becomes more apparent. If the lines of receding sledge and crowd are focused in the same centre, the structure of general movement is formed. That is to say that each group of organized signals forms a substantial basis for semiotic systems of visual text.

Specific features of semiotic systems of visual arts, revealed in the analysis of realistic work by Surikov, can be also found when studying the art works by Art painters at the beginning of the twentieth century.
The analysis of symbolic art works extends semiotic understanding of text systems of visual art. A philosophical and symbolic approach relating art traditions and contemporaneity was incarnated in the works of Petrov-Vodkin, the most notable painter of early twentieth century. His paintings unite a cosmic, atemporal outlook with historical specificity, because the artist followed the traditions of icon painting language (Daniel 2000).

One of the most significant and symbolic works of the artist is 1918 in Petrograd or, as art critics called it, Petrograd Madonna (Figure 27). A symbolic image of a common woman who resembles, at the same time, a traditional icon of Holy Mother, synthesizes two visions of the world: the aspects of real entity and general Christian vision, and the cross section of real historical time and symbolic generalisation corresponding to the preservation and development of human deiformity. The art text of the picture is based on the combination of the panorama of real revolutionary Petrograd and the idea of Holy Mother, initially present in picture design and composition. In the context of revolution, the Virgin symbolizes the birth of a new life, a symbolic historical repeat of the escape of Baby Christ from Herod. The combination of images of the Virgin and a woman from revolutionary Petrograd can be interpreted in different ways.
and thus, generate ambiguous sense. The most direct interpretation states that *Petrograd Madonna* nurses a new God’s baby, while the birth of a new life is a kind of Second Advent in the context of revolution and symbolizes the birth of new faith. This follows from the language of icon painting. A typical mother’s pose with the inclination and slight turning of the head, baby held at the left side close to the heart, and hand gestures — all this repeats the manner of icon painting. The image of the lady resembles icon painting systems by the character of geometrical generalization of forms. Preserving the traditional Russian manner of painting Mother and Child, Petrov-Vodkin complements it with some new features.

Two-dimensional images, typical for icon painting, allows the artist to use actively large color configurations as sign means. The mother’s light head is a semantic and visual centre of the picture; the light baby’s image forms the next important sign element. The tension of contrasting white, dark green, red, and flesh colours in a visual centre of the painting is complemented by independent gentle forms of mother’s and baby’s images, which are opposed to geometrically organised environment in the basic semantic centre. This method reveals a semantic and visual activity of centre and the contrast between images and their environment. The mother’s silhouette possesses its own finished composition. It is not only inscribed into the rectangle of picture, but interrelated with this rectangle via the joint system of proportions and position of the major elements relative to diagonals and centre (Figures 28–32). The opposition of mother’s image to the environment by color, forms, and silhouette is far beyond the frames of formal technique. While mother and child symbolize the birth and development of a new spiritual life and human being, their opposition to the background brings the main meaning further to the front. The background of a real life is depicted as horrible and hostile, bound with cold and hunger, malicious, and subordinated to the instincts of crowd. The signs of this environment and their relation to the images of mother and child within the general composition demand a special interpretation, which is given below. It is worth returning to the sign system of the major image.

In Russian icon painting, the Holy Mother usually has a brown or dark cherry cover symbolizing sorrow and self-giving love. Petrov-Vodkin follows the system of icon painting by surrounding the lady’s face with a large configuration of head cover. The white cover has the configuration of Our Lady’s head cover and simultaneously, repeats the configuration of nimbus, which obtains here an unusual and historically renewed meaning. In this case, an unconventional white cover with red cape symbolize a new revolutionary beginning of life.
Repeating forms of large arches symbolize the traditions of national culture (Figure 33). Each arch configuration is bound to the top of picture by a vertical line (Figure 34). This creates the analogy between arch forms and hanging bells. The latter symbolizes the passing Russia and are analogous to bell sounds in the music of Russian composers.

Urban landscape is related to the symbolics of passing life and pictures of old Russia; they form the background, which is, to some extent, in contrast to a new, expanding revolutionary reality.

Historical past, represented by the city panorama, obtains a connotative expression as a sign of a dying monster setting up its bristles against the birth of a new life (Figures 35 and 36). When examining city ‘face’ literally (as eyes, tooth, and ear), an important symbolic feature can be seen. The monster’s eyes are blind. Shutters are nailed up to protect shops and goods stored inside. This generates one more metonymy: human eyes are still closed for a new joyous life; the city sleeps in a blind innocence. In general, the connotation of monster assigns dismal features to the whole picture and the impression of Petrograd. Guessing a hidden grin

Figure 28. ‘1918 in Petrograd.’ Basic icons and its system of proportion (figure and head of Madonna and figure of Infant). This proportion relates basic icons and geometrical figure of the picture.
of the city, a spectator feels simultaneously a blind energy of crowd actuated by hunger and hate. The shut eyes of the city hint at its blindness. The dark blind force of the crowd and gloomy grin of the city are the main designates of this hidden iconic sign. The life of Petrograd and whole Russia is poor and terrible. One feels sorry for poor women in white head covers waiting for bread and for the proletarians marching under the red banner. People forming the forces of revolution are included in a more general picture of a horrible city.

Semantical saturation of a visual text makes it possible to give different interpretations of the main idea of the painting. Nevertheless, the combination of connotative sign formations and specification of their meanings allow us to interpret a general metonymy. The everlasting nature, the continuation of spiritual evolution of mankind faces a spectator. A new life in preserved and germinates in mother’s hands on the background of anxious time. In this terrible life, in this embittered city, under the cover of Revolution, a new human life is born, and a new Baby survives.

It is logical to notice that the main color ratios of the picture continue traditional symbolics of icon painting. In this case, blue denotes mystic
fundamentals, green refers to all that is young, new, and evolving, and the red cover, as has already been mentioned, symbolizes life and revolution. This opposition of colors clearly points to a general symbolic opposition of mystic past to a new reality developing under the cover of revolution. There is little scarlet at the picture. It only bursts through a gloomy dark blue, grey, and ochre background. This corresponds to a general idea discovered via the sign system: new cheerful life only smoulders and germinates in contemporary reality.

The arrangement of representamens and visually active signals of the picture reinforces major signs. The silhouettes of woman and child, especially, their main components (heads, faces, and eyes) are united into independent systems of geometrical likelihoods with the rectangle of the picture and the most active dissecting rectangles. The location of significant elements is noticeably interrelated with a diagonal composition. Petrov-Vodkin not only performed the semantics of his artwork in the systems of art text, but created a developed system of syntactics and polyphony of colour and forms.
The systems of bilateral and axial symmetry of the picture create a specific effect of mutual expression of movements and directions. To make sure of that, it is necessary to reverse the image. It is possible to obtain an obvious picture of bilateral and axial symmetries by marking lines and points of major elements of the picture and superposing the rectangle of the image, then turning it upside down, from left to right (Figure 37), and clockwise (Figure 38). The analysis shows that this syntactic rule is universal for the systems of visual art.

It general, it is possible to state that each group of signals is interrelated with the groups of representamens; in their turn, they are interrelated with sign relations, while the latter, with semantic systems.

The existence of such regularities can be revealed in the analysis of many art works containing the elements, systems, and structures, which are similar to those demonstrated by the author in aforementioned examples.

Figure 31. ‘1918 in Petrograd.’ Basic icons, its systems of proportion. Basic icons (variant 1) are related with geometrical figure of the picture and general pictorial parts
Figure 32. ‘1918 in Petrograd.’ Basic icons, its systems of proportion. Basic icons (variant 2) are related with geometrical figure of the picture and general pictorial parts.

Figure 33. ‘1918 in Petrograd.’ Connotative sign formation of the picture. Arches forming the signs of ancient traditions and organising the signals of the picture.
Figure 34. ‘1918 in Petrograd.’ Connotative sign formation of the picture. Hanging bells

Figure 35. ‘1918 in Petrograd.’ Connotative sign formation of the picture. Awful face of the city. Organizational colour spot is the representamen of this connotation
Figure 36. ‘1918 in Petrograd.’ Connotative sign formation of the picture. Awful face of the city. Organizational lines are representamens of this connotation.

Figure 37. ‘1918 in Petrograd.’ System of signals, basic points, lines and the figure of the picture. Mirror symmetry is the structure of signals.
It seems in general that the regularities of interrelations of structures of different levels and visualization of various types of signs, representamens, and signals, revealed by semiotic studies, favour a more substantiated examination of semiotic systems of visual arts in the aspects of progress of theoretical anthroposemiotics.

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