

# Visual and Graphic Components of Electronic Literary Polycode Texts

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**Abstract** — The paper deals with the key aspects of electronic literary texts visual representation. The polycode components interaction inside the structural and semantic integrity of electronic literary text is analyzed as well as the role of these elements in the thematic complex of the artwork. The comprehension of the graphical means in an electronic literary text takes place within the framework of metagraphemics. The author provides an overview of metagraphematic means in electronic literary texts such as graphic segmentation, kerning, colour and font variations. The research materials are the electronic literary texts based on Adobe Flash and HTML.

**Keywords** — *electronic literary text, visual, graphics, metagraphemics, polycode.*

## I. INTRODUCTION

The rapidly growing trend of information visualization in the modern communication determines the interest on the part of linguists to nonverbal and paralinguistic text components and their visual and graphic design, which is reflected in a rather extensive list of studies. According to O. Mishina, it was in the second half of the 20th and the beginning of the 21st century that the non-verbal component “turned from a secondary, subordinate source of information into an equivalent component of the text, not inferior in meaning to the verbal one” [1].

Graphic means of transmitting information in the text are currently of particular relevance. Their comprehension takes place within the framework of metagraphemics, a special sphere of linguistics dedicated to the written language, in which the influence of graphic elements of the text on its semantics and the implementation of the author’s communicative strategy are studied. It should be noted that the role of paralinguistic components and means of the visual and graphic design of the text is not always unambiguous, since in some cases paralinguistic elements can relate only to the design of the text, its expressive status. Being the carriers of certain information (semantic or expressive), they “form, along with the verbal means, its informative and pragmatic aspects and act as the relevant means for its typology” [2].

The literary text in this case has more flexibility and a wider list of metagraphemic means that can be used by its author. The literary text editing depends mostly on the author’s esthetical taste and imagination. So, if it does not confirm the generally accepted graphical standards of the representation, it is inspired

by the supplementary connotations that are important for the author’s fiction world model.

## II. MATERIALS AND METHODS

Typologically electronic literary texts refer to polycode texts whose status in modern linguistic theory needs to be clarified due to the significant changes in the information and communication field. Among the linguistic studies of the text, many works are devoted to the heterogeneous, multicomponent texts. One of the key problems in this segment of linguistics is associated with the search for an adequate term that can reflect the complex nature of the multicomponent structure of semiotic heterogeneous texts.

Texts in which the use of paralinguistic means becomes an important type-forming feature, E.E. Anisimova identifies as paralinguistic texts. A special group among them is the so-called creolized texts. According to the researcher, this group includes “texts whose structuring involves codes of different sign systems, primarily verbal and iconic (pictorial) signs” [2].

Initially, the term “creolized” is introduced into the linguistic circulation by Yu. A. Sorokin and T.F. Tarasov, who define this type of text as “texts whose texture consists of two inhomogeneous parts: verbal (language / speech) and non-verbal (belonging to other sign systems, rather than natural language)” [3].

According to V.E. Chernyakovskaya [4], the term “creolized text” for mixed texts (verbal and non-verbal) does not fully reflect the specificity of the interaction between heterogeneous components in its structure, because this term has already fixed a certain content, namely, the process of forming a language based on pidgin.

O. V. Poymanova defines such texts with the term “video-verbal”, explaining that for this type of texts it is possible to specify a text as a sequence of signs connected to sign systems of natural language and iconic” [5]. However, as A. G. Sonin [6] points out, this term does not solve the problem of the terminological definition of semiotically heterogeneous texts, since any written text is video-verbal.

R.O. Jacobson [7] defines texts containing non-verbal elements in their structure along with the verbal component as “syncretic messages”, representing combinations of different sign systems. The scientist emphasizes the need to see the difference between the study of communication homogeneous and syncretic messages.

The term “polycode text” is used by L.M. Bolshiyanova [8], which explores the “lingo-visual complex” (combination of newspaper text with a photographic image), as a kind of polycode text. A.G. Sonin defines polycode texts as texts “built on a combination of semiotically heterogeneous components in a single graphic space — verbal text in oral or written form, images, and also signs of a different nature” [9].

It follows from the above that the term “polycode” conveys the essence of the phenomenon of verbal and non-verbal elements combination within a single text much more precisely, since it reflects the special quality of textuality resulting from the combination of polysemantic components. According to V.E. Chernyakovskaya, the term polycode text draws attention to the textual nature of the phenomenon, its meaningful and semantic integrity [4].

Despite the considerably expanded theory of polycode texts nowadays, it should be noted that it is mainly aimed at understanding the complex structure of printed texts (works of modern newspapers or magazines, comics, advertising messages, etc.) or audio-visual works with verbal component (movies, musicals, music videos, advertising messages in video format, etc.). The works of electronic discourse which are now becoming increasingly important are analyzed in a few studies aimed at solving local problems.

One of the main difficulties of the electronic literary text study is associated with the special status of its material carrier which is electronic form (network or local copy) because it is more dependent on the technological aspects of its implementation than other material objects. The electronic format is a subject of constant changes associated with regular updates concerning not only specific software applications used to create electronic literary texts, but also the general shifts in the web technologies (for example, the change of Internet services Web 1.0, 2.0, 3.0), which inevitably affects both the external and internal structure of the electronic text, determines the specifics of its publication, distribution and reservation.

All electronic editions can be divided into three main categories: 1. Digital copies of print literature placed in various electronic libraries (Fig. 1).

<p>With young hearts for opening still, This spirit dwells in it, will speak to him: Do you remember to what language first As youthful in our hearts, bring you there? His Larcher's part, and his knowing love Where we shall have his case statements: Hear: Some legends Enter Claudio King of Denmark, Gertrude the Queen, Hamlet, Polonius, Learner, and his sister Ophelia, Lords Attendant King, though you of Hamlet see these flatterers death The memory be present and that it is belied!</p>	<p>To have our hearts in grief, and our whole Kingdom To be confounded in one blow of war, For us have built Bastilles, height with Skies, For us with wound and sorrow sent on fire, Together with our business of our state, Therefore our courtiers like our Queen To impudently stretch in this world's state, Here we, as 'twere, with a defined cry, With one accord, and one strong voice, With heart in French, and with our hearts in Heaven, In equal scale weighing Delights and Dole, Taken to Wife, we have no business here; Your better Wisdoms, which have freely gone With his affairs along, in all our Thanks; Now address, that you have young Fortinbras; Holding a weak supposal of our worth;</p>
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Fig. 1. The Project Gutenberg's text of Shakespeare's First Folio

2. Literary texts distributed in a specialized digital format for electronic books devices (eBook, Fig. 2).



Fig. 2. Pocket eBook reader

3. Electronic literature. This category includes all types of electronic literary texts, from the very first editions of the electronic hypertexts on CDs (Storyspace projects, Fig. 3) to the modern multimedia network literature represented in online collections. The electronic literary texts of the third type will be considered in this article.

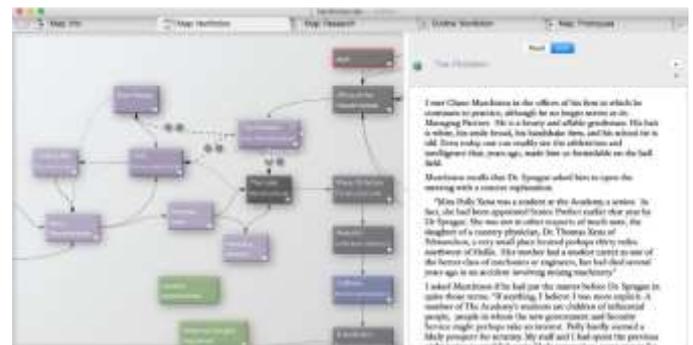


Fig. 3. Storyspace map

### III. RESULTS

All verbal messages can be fixed on the print or electronic carrier by means of letters (graphemes). The complex of rules which helps regulate graphical accents of verbal elements is called substantial metagraphemics [10]. Metagraphematic means can be divided into several subareas:

- chromographemics (highlighting verbal elements with the aid of colors);
- supraphographemics (font variations);
- topographemics (spatial variations of verbal elements);
- singraphemics (allocating verbal elements by means of punctuation marks) [10].

As for functional options, metagraphematic means in polycode texts can be used for the following purposes:

- technical (visual comprehension facilitation);

- informative (semantic aspects of the message);
- esthetic (artistic conception realization);
- emotive (impact on the emotional state of the reader);
- symbolic (abstract ideas and concepts expression);
- illustrative (verbal elements exemplification);
- euphemistic (paralinguistic means are used as a euphemism that conveys information which cannot be verbalized) [2].

Graphon is a specific figure of speech which represents an intentional and stylistically significant deviation from the graphic and orthographic norm [11]. Against the background of a graphically standard and orthographically normative text, this phenomenon acquires a pragmatic load (expressive, emotional, aesthetic). It is represented by unusual outline of words (different font markings, discharge, hyphenation, the use of foreign signs inside the main text, writing in capitals instead of lowercase and other graphic and spelling alternatives).

One of the most common methods of graphic text selection is graphic segmentation of the text. The screen space and the possibilities of the graphic editor allow the author to feel the relative freedom with regard to the graphic text localization. This method involves textual fragments design as specific elements of different figurative nature (e.g. figurative poems). Thus, for example, in the electronic literary text “Butterfly of the future” by Alexroma [12], the butterfly is presented on the screen as the static picture which is constructed with the help of letters imitating butterfly’s wings (Fig. 4).



Fig. 4. «Butterfly of the future» Alexroma

Another method of graphic selection in electronic literary texts is kerning, which is a selective change in the spacing between letters depending on their shape. Increasing the spacing between letters in an electronic literary text is a very common method, but unlike its original function in printed texts (visual alignment of letter gaps, which is mainly used in headings), in electronic works this method is mostly hyperbolized, and its purely practical function carries a certain symbolics and semantics.

The interval variation between letters is used in several electronic literary texts to create verbovisual images, for example, in “The Mandrake Vehicles” by O. Buchanan [13] (Fig. 5). Each part of “The Mandrake Vehicles” has an identical structure, presented in the form of a book page with a dark text

on a light background. Each text block can be read linearly from one part (vehicle) to another. But each text surface contains a depth of “two additional poems”. In addition to describing the overall structure, it should be noted that the author defines the third and sixth layers of “The Mandrake Vehicles” as “liquid”. This means that in these parts of the narration the internal mechanism of combining letters, words, phrases and lines of the new poetic fragment is visible. When the “extra letters” disappear, the reader can see the letter scheme based on which the next text layer will be composed. “The inner poems of each vehicle are unearthed as letters drift off the surface of the poem and the remaining letters solidify into new poems. In addition to the relationships created between the contents of the three poems of each vehicle, relationships are also forged between words of the different layers that share the same letter(s)” [13].



Fig. 5. «The Mandrake Vehicles» O. Buchanan

Font variation (changing the type and colour of the font) is used in the electronic literary texts as an independent and optional method. For example, in the electronic literary text “Velocity” by T. Escaja [14], the use of different front types, as well as the variation of their size, colour and the way they appear on the screen, allows the author to focus the reader’s attention on the key ideas of the work as semantic and visual intersection of moving text fragments (Fig. 6).

Different color variations are used in “This is not a poem” by A. Bigelow [15]. The text of the poem is written in black and placed in the center of the disk image resembling CD. The button “play” on its corpus makes the disk interactive. When the reader clicks the “play” button, CD “turns on” and begins to make rotational movements like any disk, being in the player. During this movement, the reader may hover the cursor over any word in the poem. The words of the poem under this influence change their color from black to green and fly out of the text, locating on the edge of the disc.

The key image of the poem is a tree. The author emphasizes that all man-made things are ephemeral and imperfect, while God-created objects are beautiful in their natural beauty (“Poems are made by fools like me, but only God can make a

tree” [15]). The words that disappear from the text of the poem change their color from black to green, symbolizing the leaves of trees (Fig. 7). The color change in this case helps the author involve the symbolic background of the electronic poem not only on the verbal, but also on the visual level.



Fig. 6. «Escaja» T. Velocity

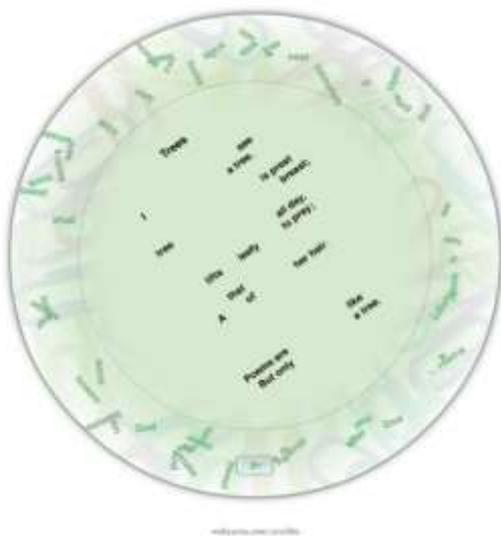


Fig. 7. “This is not a poem” by A. Bigelow

The use of color symbolism to reflect the key ideas of the work is applied in the “Faith” by R. Kendall [16]. The author uses yellow color to indicate the leitmotif of the work and its central concept as “Faith”. This is the color of the sun, divine power, the magnificence of enlightenment, immortality, fire, glory. Thus, the main character tries to reject logic and begin to live his life based on faith, but this requires courage from him, he must take a decisive step to achieve what he aspires to (“leap of faith” [16]).

The orange color symbolizes energy, joy, courage and warmth. This meaning corresponds to the symbolic structure of

the “Faith”, the main character, immersed in his own thoughts, and only courage (“a bold and decisive step” - “leap of faith” [16]) and energy can put an end of his doubts.

The red color is usually associated with the beginning of life, activity, but it can also mean a threat. The red blinking signal acts as a warning of possible danger (“oh red winking neon logic” [16]). The protagonist’s consciousness (logical thinking, rationality) tries to protect him, while faith relies on intuition and feelings (irrationality).

The black color means darkness and uncertainty. There is the expression “a leap in the dark” (“jump / step into the unknown”; “risky step”). So, the main character takes a step into the unknown, relying on intensity of his faith.

The use of color symbolism in the “Faith” by R. Kendall is aimed at revealing the main theme of the electronic literary text (the inner struggle between rational thinking and faith). It makes the style of the narrative colorful and emotional (Fig. 8).



Fig. 8. “Faith” by R. Kendall

A special case of graphons realization in the electronic literary polycode texts are different variants of graphical occasionality. Sometimes it can be combined with other methods of occasional word formation, such as backronyms and etc. For example, in electronic literary text “The P.o.E.M.M.” by J. Lewis, B. Nadeau [17] the capitalized letters in the title are separated with the help of periods thus the word “poem” gets a backronym, a constructed phrase that can be interpreted as a source of the word [Poetry for excitably (mobile) media] (Fig. 9).

It should be noted that in almost all examples of electronic literary texts above, the graphic enhancement of the text is made by adding animated options (ability to move words/text fragments on the screen), audio options (adding sound components to the literary image) and interactive options (opportunity for the recipient to influence the structure of the literary text/image).



Fig. 9. «The P.o.E.M.M.» J. Lewis, B. Nadeau

#### IV. CONCLUSION

The visual and graphic aspects of electronic text representation have received a particular attention nowadays. Most earlier studies in paralinguistics were carried out on the bases of written texts (advertising messages, political campaign posters, comic books, etc.). However, the emergence of new (electronic) discourse types and their specific by-products, such as new types and genres of text messages in electronic format (electronic literature) at the end of 20th and the beginning of the 21st century, requires updating and revising the key aspects in paralinguistic theory and the functions of its basic means in this regard because the capabilities of the electronic environment have significantly expanded the arsenal of visualization mechanisms in the electronic texts.

The key attribute of the modern electronic text design is verbal reduction. The verbal elements reduction in the written message is provided through the inclusion of different semiotic signs (graphics, font and colour variations, spatial characteristics, interactive options and etc.). These additional means contribute the text meaning and influence its perception strategy.

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