Contemporary illustration methods and new application areas on illustrations: Interaction induced animated illustrations

Banu Bulduk*, Department of Graphic Design, Faculty of Fine Arts, Hacettepe University, 06800, Ankara, Turkey.

Abstract

Illustration can be defined as a sub-discipline of graphic design enabling the realization of visual communication which mediates to the description of ideas and thoughts in a formal way. From the past to the present, illustrations find various areas of usage as visual elements in communication environment and it can be used as a design element for many graphic products ranging from product designs to children's books. Over time, stylistic differences in illustration languages have also turned into structural differences in design and production process and concepts such as interaction, user control and animation have developed an alternative language to the traditional illustration techniques. Contemporary form-languages of these illustrations are examined in the scope of this study. Formal analysis of illustrated graphic products and their delivery to new media environments are considered in this process. Animated illustrations and three dimensional design, among those application techniques, are at the active position to intensify the perception of viewers/readers via illustration. In this study, method included the usage, design and application processes of animated illustration applications, also current and proposed examples and alternative languages' search of illustrations are discussed.

Keywords: illustration, contemporary illustration, animated illustration, three dimensional art design, interaction design.

* ADDRESS FOR CORRESPONDENCE: **Banu Bulduk**, Department of Graphic Design, Faculty of Fine Arts, Hacettepe University, 06800, Ankara, Turkey. *E-mail address*: banubulduk@hacettepe.edu.tr / Tel.: +0-312-297-8825

1. Introduction

Illustration can be defined as the form of transferring desired message as a means of visual communication. Illustrations mediate desired message to read clearer and easier, help expressing an idea, thought, concept or fact, provide it to be understood easily, give information or tips and sometimes they are used as an effective application area which paves the way for emotional and imaginative ideas that are not possible to be expressed by photographs. Illustrations which are formed as concepts' stylistic expression of their artists in an original form with a concern of delivering a message can be separated from pictures as they are used together with the texts. Therefore, when they are used together with texts, they clarify their complementary and interpretative role on the text.

As a contemporary interpretation and communication language, illustrations can be defined as "conveying the content in a visual way by resorting to creative, different and extremely personal ways for solving problems, interpreting, and informing, inspiring, explaining, educating, encouraging, surprising, enchanting, narrating functions" (Wigan, 2012). Reaching solutions with creative and personal forms brought stylistic innovations in illustrations and search for a new alternative language was developed. With subject, style and content concepts as three components formula, illustrations help the message to be shaped in an organic integrity. Interaction of these components with each other directs the structure to be established solidly. For instance, it is getting to work along with an illustrator's observing an object (subject) which activates the senses (content) he or she has and an illustrator's developing a composition (style) can be given as an example (Ocvirk, 2015). Formation components of the organic integrity can be stated as formation (style), shaping / making visible (subject) of a message desired to be told (content) with illustrator's style and application technique. The fact that an effective education process is experienced with eyesight makes the contribution of the illustrations on the interpretation of the texts clear. Clarity of the message desired to be transferred can be associated with functionality feature of the illustrations. In this context, transmission of the content can be provided with illustrations which are stylistically saturated and qualified. Therefore, developing new field applications with appropriate language allows the preparation of applications with improved functionality. In this context, it can be said that correct establishment of content's stylistic analysis has great importance.

2. Contemporary illustration and methods

Illustrations can be separated from each other in terms of their subjects, messages, purpose, audience and expressive language in a stylistic sense. Today, with the use of various materials and environments, current illustration languages are developed, alternative languages are formed with experimental approaches and illustration languages are transformed with a contemporary interpretation understanding. So that the developed designs and illustrations can reach a diverse range of audiences. Animated illustrations and design products whose noteworthiness is enchanted and to whom engaging and intriguing features are included expand the illustration methods in this regard. If meeting perception criteria in visual communication in the framework of visual perception and Gestalt principles is needed, "pieces of a visual image can be resolved and evaluated as different components and the whole visual image is different and broader from the sun of its parts." (Ucar, 2004). Therefore, illustrations which are taken as visual image are dealt within the framework of this study as the most important factor to affect people's perception and learning experiences. By taking their areas of use into consideration, illustrations turn into functionally enchanted objects and being described with experimental materials, they gain contemporary style languages with a new language of expression. Such that, new media and interactive multimedia applications changed the two dimensional surface perception of illustrations. Now, viewers can animate the illustrations. At this stage, it can be said that illustration methods change according to the content and environment of use.

3. New application areas in illustrations

Illustrations are produced with different technique, field, method and styles according to their environments of use and purposes of the products. Illustrations which take place in magazines, books, printed publications such as article, news, story and novel in newspapers and encyclopaedias and which complete the text are used as press (editorial) illustrations. For the illustrations used for banner, press ads and packing; the description of advertising illustrations, for the product or service descriptive illustrations used in fields such as food, clothing, transportation, commerce etc.; the description of *fashion illustrations*, for the illustrations used at children's books or course books; the description book illustrations are made. Besides them, natural history illustrations and botanical and mechanical expressions which cannot be expressed by photography can be defined as *scientific illustrations*, illustrations which are used at guides, diagrams and maps can be defined as *information illustrations*. The more their areas of use change, the diversified illustrations' production techniques become. Also features in which user interactive different cutting and folding features processed are added to illustration types and readers are enabled to form an interaction with animated books within a different experience and point of view. Undoubtedly, adventure of reading a book will become enjoyable as audiences meet illustrated images, figures or objects in different sizes and three-dimensional at each scene.

3.1. Three dimensional book illustrations (pop-up books)

Illustrations are evolving towards changes stylistically with emerging technological environment and tools. Attention enhanced, interactivity sourced and user / reader interactive applications are developed by design team and illustrations have been turning into three-dimensional applications from two-dimensional applications. From these applications, two-dimensional illustrated books are designed as three-dimensional by creative methods and animated designs. Three-dimensional books (pop-ups) are products which are shaped on a three dimensional surface designed systematically from a two-dimensional environment with special cutting and folding details by co-worker paper engineers and illustrators (Fig 1).

Figure 1. Oceano pop-up book, Anouck Boisrobert and Louis Rigaud, London: Tate Publishing, 2013, Examples from Illustrated Pop-up book applications

Three-dimensional book illustrations (Pop up Books) are one of the three-dimensional illustration applications which are called paper folding design and mathematic of paper which use paper as material. "It is a kind of a book which brings out a three-dimensional structure when its pages are opened." It holds creative techniques such as moving pieces which are changing the meaning of the images used in the book, opening and closing wings, folding pages and strips which can be pulled and wiggled (Wigan, 2012). In current illustrations, these applications which attract people's attention, in which a different feature is activated when it is being touched and in which context the material (paper) is designed as well, host illustrations which can be named as animated books. Advanced folding and animating techniques require the integration of the application with the content. Designs are earning details according to the age range of the target audience and with the details required by the content, folding and animating details are developed. Formation of various sized models with the turning of the pages forms the *Pop up Books* and facilitating movement to the illustrations by moving the paper according to the details taking place at the illustrations and their connections with the content forms the *Animated Books*. Especially with the usage of *Pop up* technique at children's books, a different field in printed publications has been developed and as they are integrating children into the application / story, they make the storytelling more permanent and impressive, they entertain while reading and they contain creativity and details.

3.2. Tunnel book illustrations

Tunnel book concept is an application which was developed as an alternative language to three-dimensional book designs called *pop up* books. In the applications which scenes are deepening in layers and the place is shaped according to the content of the story, what are essential are again illustrations. In these books, the senses of depth and dimension are transferred to the readers, various materials are used and little booklets are obtained (Fig 2). As Gray also mentioned, many compositions are based on geometric shapes (Gray, 2012). At the tunnel books which are added dimension as part of these shapes, depth can be formed the most brief by designing pages in the form of an accordion from the two sides. Reader finds the opportunity to read the book from the depth created on the cover of the book. Each page placed at the accordion range not only gives dimension but also it provides the reader with seeing every scene at the same time. Every page which is designed interrelatedly reflects the whole scene in general. A new dimension is brought to the illustrated book design with the tunnel books and illustrations in which illusion of perception is created with perspective effect and a different effect is created on the audience. It can be said that, tunnel books are developed inspired by theatre stages (http://wonderopolis.org/wonder/what-is-a-tunnel-book/) and with the placement of sets one on another, an integrated scene of the book and a specified theme are developed.

Figure 2. Examples showing the application and development stage of the tunnel book, Andrea Dezsö, https://fishinkblog.files.wordpress.com/2012/10/fishinkblog-5009-the-first-cut-4.jpg (on the left), http://www.annespapercreations.com/ (the right)

3.3. Three dimensional paper toys illustrations

Illustrated three-dimensional paper toys (Paper Toys), are three-dimensional formed/designed state of a product mascot or a story character. From now on, the created hero remains standing; it is detailed in terms of the features and the details of the used paper and it turns into a striking product with its evident body parts. The user can move the product with the guidance of the illustrations, can add or extract details and objects attached to the product and can enter into an interaction. The characters created in the two-dimensional environment are transferred to the three-dimensional environment and with the use of mathematics; they turn into standing figures (Fig 3).
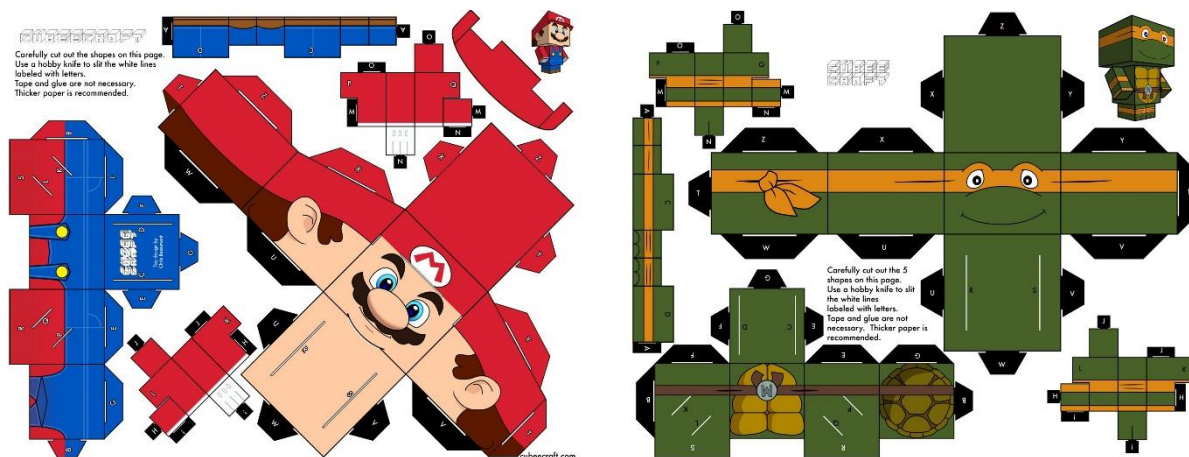

Figure 3. Paper toy model plan of character called Mario, http://www.cubeecraft.com/cubee/new-mario (on the left). Paper toy model plan of character called Michelangelo (80's), http://www.cubeecraft.com/cubee/michelangelo-80s

### 3.4. Three-dimensional design applications and Illustrations

Today, three-dimensional illustrated graphic products and design applications can frequently be found at social environments and urban spaces. From three-dimensional stand designs located in front of the cinema halls and sized poster applications to *pop up* book designs interacted from interwoven card designs, the application areas of such products are expanding. The applications developed as *pop up* cards are also designed from the placement of illustrations which are shaped from paper on a fixed surface. Poster designs also take place in *pop up* applications. Three-dimensional folding method is used at these posters to which folding / bending / open-close details are added in accordance with the message and illustration. At the trailer of the 2008 American and English co-production film called "The Tale of Despereaux" which was directed by Gary Ross, Sam Fell, Robert Stevenhagen, three-dimensional promotional application (Fig 4) was used. The protagonist of the film Despereaux is a little mouse which has huge ears. Despereaux makes friendship with a princess called Pea. In the following minutes of the film, the film continues as Despereaux learns how to read books in which stories about knights, dragons and young ladies are told. It can be observed that, the content of the film and the poster design are quite parallel. Characters are placed as if they are moving on the space. At the three-dimensional poster application which gives the image of an open book when looked from distance, figures are placed in a row to gain depth. When the detailed images of the three-dimensional application/stand taken from different angles (Fig 4) are examined, it can be seen that each figure is fixed to the point where it is situated separate from each other and from the ground.

Figure 4. The image of three-dimensional poster located at the entrance of the Cepa Shopping Mall Cinema in Ankara prepared for the film called "The Tale of Despereaux". (Photograph: Banu Bulduk, 2009).

A new interpretation to contemporary illustrations is a master thesis titled "Graphic Design and Application Problems on the Theatre Publicity: Three-dimensional Design Applications for the Theatre Play Called "The Sacrifice (Kurban)" completed in 2011 at Hacettepe University Institute of Social Sciences, Graphic Design Institute, Graphic Art Major. This thesis which provides suggestions in the field of three-dimensional design applications suggests three-dimensional stand and promotion applications for the theatre play "The Sacrifice" (Fig 5). With this play in which Zehra is forced to share her husband with another woman but doesn't accept this situation with her mind, emotions and natural instincts, multiple scenes are fictionalized separately and placed to the ground in a layered way to obtain a single composition so that it can be given as an example to the three-dimensional graphic applications. The application is generally aimed to be solved in three stages. In the design which is formed combining three different scenes at the same frame; scenes are illustrated by reinforcing front and background relationship. As to the perception of priorities, attractiveness of the design is tried to be increased by determining the relationships of the elements with each other in terms of colour, texture, contrast, bigness-smallness and proximity-distance (Bulduk, 2009).

Figure 5. Three-dimensional stand-poster design prepared for the theatre play called "The Sacrifice" and sketch work showing folding and cutting places (Design and illustration Banu Bulduk, 2011).
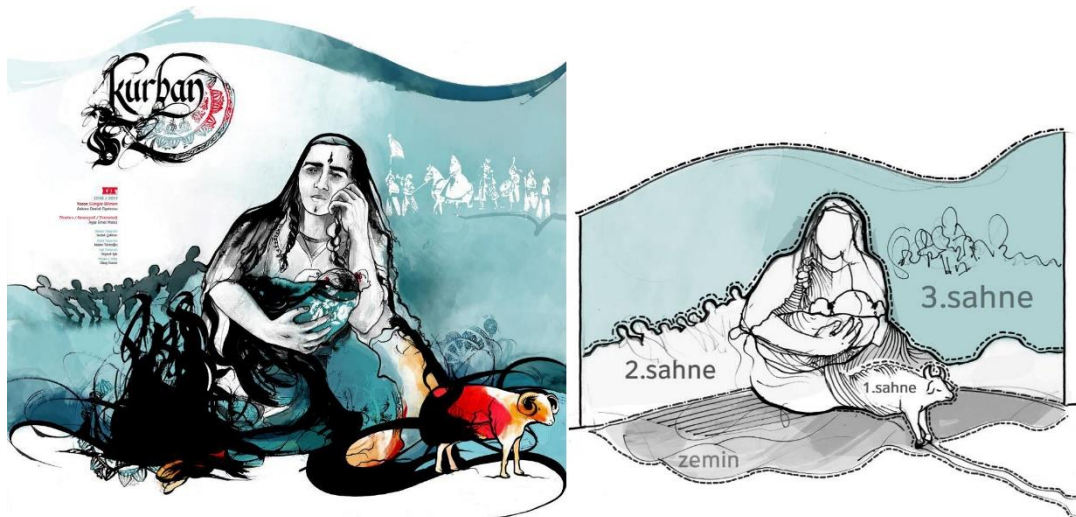
4. Interaction originated designs

4.1. Interactive animated e-book illustrations

Interaction originated animated illustrated electronic books and illustrations can be defined as graphic products which are designed with the properties that they will be able to be viewed at new communication environments and hardware. So that, the electronic states of the printed publications are required to be developed within the framework of a specific design process. E-books can be evaluated in this context and interaction features can activate animated illustrations with the intervention of the user. These animated images are developed in the books in relation to story text. With their text completing and suggestive features, illustrations interact with users via these e-books and they support the development and conclusion parts of the story. Multimedia Design Principles supporting the reading of the text and easing the learning gain importance in this regard. Likewise, especially interaction originated illustrated e-book is a multimedia design application. Heskett explains the complexity of the multimedia applications as it is an example of communication's wider distinguishing quality. Presenting more than one sensory element at the same time in an application/design can be expressed as "skills' separating into an increasingly great number of subdivisions and innumerable combination of these skills" (Heskett, 2013). If multimedia concept needs to be dealt with briefly, "it is the process of presenting material as a combination of words and images" (Perkmen, 2009). It can be defined as the process of supporting our sense of sight with our senses of hearing and touching in the learning process. In this process, illustrated electronic books are graphic products which must be designed considering both stylistic and contextual features. With the animation of the illustrations and bringing the movability feature in the page design, presentation earns an alternative language, intensifies curiosity and prolongs the reading duration of the audience.

4.2. Interactive animated illustrations

Illustrations used in the new media environments, motion graphics and icons, messages, user-interactive applications can be shown as examples to the animated illustrations used in this field. Emoticons and animated *emojis* taking place at the portable devices or applications can also be given as example of illustrated animated graphics. In multimedia sharing, image containing animated *gif* extension illustrations take the form of image which are given movement as more than one scene are encoded one on the top of the other or one after another. Thus, image/illustration becomes attractive in digital environment (Fig 6).

Figure 6. Sample images of interactive animated illustrations (http://nimuradaisuke.tumblr.com/ , http://lifestyle.campus-star.com/wp-content/uploads/2016/05/2ab877eb96fafcd38f1a3ee1e5cd874f.gif , http://weheartit.com/entry/207947764).

Bulduk, B. (2016). Contemporary illustration methods and new application areas on illustrations: interaction induced animated illustrations. *Global Journal of Arts Education. 6*(3), 77-84.

5. Conclusion

This paper in which contemporary style languages and new application areas of illustrations are examined with reference to the definition of animated illustrations, new methods in illustration languages are discussed. From printed publications to animated images used in the electronic environment, interaction oriented animated illustrations are treated in a wide range. The reader who experiences an attractive reading with pop up books plays the role of a user who experiences an entertaining reading with interaction oriented animated illustrations.

In the scope of this paper, these illustrated graphic products which can be displayed at multimedia and new media environments are approached with usage styles of illustrations and their new interpretation understanding and the books whose attractiveness are increased and which have detailed illustrations made of extensive paper mathematic are aimed to increase the readability of the texts. These applications are treated with examples prepared both for adults and children. Mentioning about the details which aren't possible to be photographed at the scientific illustration increased the awareness towards science and with the map illustrations in which expression is made easier with visual images, achieving the goal became easier. Three-dimensional poster designs used in front of the cinemas draw the attention of the audience and they might lead the audience to watch the film. For this reason, illustrations which ease the readability of the texts and assist their understandability have been more enriched with the movement feature and they have been used and preferred in the new media environments.

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