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Communicative potential of stop-motion animation in the practice of modern design

Abstract. The relevance of the research is determined by the need to substantiate and implement effective visual-narrative media formats for creating effective visual communications capable of clearly conveying messages and ideas to the viewer. The purpose of the work is to reveal and evaluate the communicative potential of stop-motion animation in the context of audiovisual practices of modern design. Research methodology is formed by general scientific and special methods, in particular, comparative and historical analysis, scientific analysis and synthesis, methods of visual observation, modeling, art history and content analysis. The research substantiates the technical techniques, formal and artistic approaches of stop-motion and reveals their influence on the communicative potential of animation in the context of various project tasks. The effectiveness of the tools of stop-motion animation in modern audiovisual design practices for increasing the emotional involvement of the audience and improving the perception of content due to attractiveness and experimentation has been proven. The ability of stop-motion animation for detail, visual saturation, expressiveness and emotional expressiveness can play a key role in solving design problems where a deep narrative impact needs to be achieved. The paper substantiates the expediency of using the main technical techniques of stop-motion animation in the implementation of specific conceptual project tasks, in particular in short animated films of various genres, in advertising videos, in art projects, where the goal can be achieved due to the high artistic characteristics of the visual series, interactivity and emotional interaction with the viewer. The practical value of the work is determined by the possibility of implementing the research results into practical recommendations for the implementation of specific projects. The results of the research can be useful in the academic community for the further development of the theoretical foundations of stop-motion animation and the expansion of project approaches in educational courses related to audiovisual art and visual communication

Keywords: audio-visual art; visual communication; object animation; experiment; project task; props; technical approach

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INTRODUCTION

The rapid development of technological innovations in the 21st century has a significant impact on project processes in the design of visual communications. This adjusts and changes creative approaches and methods in the process of forming effective visual messages that can accurately relay ideas and meanings to the viewer. The animation industry is also changing regularly, showing new forms, the feature of which is not only computerisation and the expansion of the scope of application, but also the intention to strengthen creative possibilities through established approaches. Therefore, the problem of practical implementation of the most effective visual-narrative media formats, as well as their theoretical and scientific justification, is being updated.

As a part of the film industry with a long history, in the first decades of the 21st century, animation is perceived not simply as a technical way of shooting or a spectacular attraction. It represents a new self-sufficient type of audiovisual art with its own design tools and figurative language, means of emotional expressiveness and influence, capable of forming a new reality and existence in a new space-time. In the process of searching for the most expressive design forms, traditional technologies of frame-by-frame animation and the search for effective design methods for their application in modern design become relevant.

The question of stop-motion animation is part of the general problems of the development of modern art and design related to animation and audiovisual projection. Therefore, the scientific base of the research consists of publications containing theoretical and practical aspects of the development of animation and stop-motion design. Research by E. Gure (2019) actualises stop-motion animation as a field of application of ecological materials and as a field corresponding to sustainable development. Also, the author proves the effectiveness of the technique for media and education. L. Yilmaz (2019) considers stop-motion in the context of design tasks, investigates its unique aesthetic qualities in the context of the formation of a movement metaphor and the influence of these factors and the visual series. Researchers D.A. Purwaningsih & B. Yekti (2020) consider the peculiarities of working with props and demonstrate the advantages of using recycled and re-used materials. N. Luniya *et al.* (2022) explore the technical characteristics of the stop-motion technique.

In the Ukrainian scientific discourse, the topic of stop-motion animation is poorly covered and represented by the more general problems of motion design in the studies of M. Opaliev & K. Savina, M. Murashko, V. Oliynyk. In the study of M. Opaliev & K. Savina (2014), attention is focused on the possibilities of using motion design in the context of working with branding and art objects. At the same time, the authors emphasise experiments with animated typography. M. Murashko (2017) examines the design and artistic tools of motion design; clarifies the terminological apparatus, raises the question of space as an active element of motion design, but the stop-motion

technique remains outside her scientific attention. In the work of V. Oliynyk (2022), motion design products are classified into art objects, commercial and informational objects, the styles and software arsenal are described, at the same time, the problems of the frame-by-frame animation technique remain undisclosed.

At the same time, these publications highlight project specifics and general issues of motion design, including in the context of the Ukrainian media segment, and enable the extrapolation of certain conclusions to the field of stop-motion animation. In general, it is possible to state that the issue of stop-motion animation as a direction of motion design and the field of audiovisual design is insufficiently studied in the scientific literature.

The purpose of this work is to substantiate the technical, formal and artistic techniques of frame-by-frame animation and to reveal their influence on the communicative potential of an audiovisual product in the context of various project tasks.

MATERIALS AND METHODS

The research methodology is composed of both general scientific and specialised methods, allowing for a comprehensive analysis of stop-motion animation's evolution, techniques, and applications in contemporary design practices. Historical analysis was employed to trace the evolution of animation techniques and their subsequent influence on modern design. This method provided a foundational understanding of how historical developments have shaped current practices in stop-motion animation. The processing and generalisation of information from scientific sources were conducted using scientific analysis and synthesis. These methods facilitated the extraction and integration of relevant data, ensuring a coherent and thorough review of the literature. Empirical material was carefully selected to illustrate the historical stages of stop-motion animation development, its various types, and its effectiveness in addressing specific design challenges. This selection process ensured that the study encompassed a wide range of examples and applications. The method of visual observation was utilised to gather primary information. This involved compiling empirical statements regarding the current state of stop-motion technique use in audiovisual practices. Visual observation allowed for direct insights into contemporary applications and trends. The formal-typological method was applied to analyse empirical material. This method enabled the identification of characteristic features and techniques of stop-motion animation, as well as the substantiation of its typology. Through this approach, distinctive elements and methodologies were systematically categorised. To assess the potential of stop-motion animation in performing specific project tasks, various methods were employed, including modeling, art history analysis, and comparative and content analysis. These methods facilitated a multi-faceted exploration of stop-motion animation's

capabilities and applications. The phenomenological method contributed to identifying elements or characteristics of stop-motion animation that captivate viewers. This method demonstrated the impact of these elements on the viewer's emotional state and overall perception within the narrative context. By focusing on the viewer's experience, the study highlighted the emotional and perceptual effects of stop-motion animation. The comprehensive approach to analysing and utilising stop-motion animation in modern projects allows for the consideration of various aspects of its impact on viewer perception. This holistic perspective ensures the effective harnessing of stop-motion animation's potential across diverse fields, including art, science, and advertising. By integrating multiple methodological approaches, the research offers a well-rounded understanding of stop-motion animation's role and significance in contemporary design practices.

RESULTS AND DISCUSSION

Against the background of the development of technical capabilities and formal and figurative innovations in audiovisual communicative practices, the corresponding public demand and reception of their perception is expressed. In particular, in the context of sending a high-tech product in the field of audiovisual art, the intention to reveal new artistic values in traditional forms is actualised. In the 2020s, this form is represented by the technology of stop-motion animation – sequential filming of physical objects made of material that is easily subject to the mechanical influence of the animator. It is not just a technical method of spectacular attraction, which is traditionally considered experimental, it is an independent type of audiovisual art, which creates communication through some author's artistic reality and opens up unlimited possibilities for the creative embodiment of imaginative ideas and meaningful concepts.

Stop-motion as a technique attracts the attention of researchers due to its unique possibilities to express complex artistic concepts and convey emotions with the help of frame-by-frame shooting. In a fundamental study, C. Webster (2005) examines the principles of animation, avoiding the technical aspects. The author rightly believes that technical development and production is happening too quickly. Instead, the key principles and techniques, including issues of timing, audio synchronisation, camera work, transitions, etc., remain the same. Stop-motion theoretician and practitioner T. Gasek (2013) examines the historical aspects of the development of the technique, the stages of production, and the means to implement the idea. He does this by analysing the practical experience of modern directors and artists working with stop-motion animation. This monograph is an important study on the topic, the author gives a lot of practical information about the processes and results. Instead, in this study, the emphasis is more on revealing the possibilities of expressiveness and communicative potential of the technique. Often, researchers turn to the technical aspects of stop-motion

and the creation of props, because it is the main artistic and formal object in the frame. T. Brierton, S. Shaw in their seminal works focus on character development for animation. At the same time, S. Shaw (2004) emphasises the need to understand movement and emotion, while researcher T. Brierton (2004) focuses on processes, materials and techniques. Researcher V. Yekti (2017) considers the importance of visual tactility of stop-motion animation objects in the context of 3D printing. In his opinion, all the originality and imagery of the stop-frame technique is based on some imperfection of the frame. At the same time, the need to keep the viewer's attention prompts creators to search for methods of improvement and improvement of animated objects, including with the help of 3D printing. J.M. Barker (2009) emphasises the uniqueness of the stop-motion technique in conveying a message due to its special materiality, tactility, and physical imperfection. A. Gambrell (2011) explores the almost artisanal processes of stop-motion animation, referring to the metaphor of the "invisible hand" as an element of self-regulating tendencies. The interdisciplinarity of technology and its possibilities in educational processes are considered by G. Hoban & W. Nielsen (2014), which sets a new vector for studying it in the context of communicative potential. Animation has always been an important form in the film industry "...prompting, informing and responding to each of the technical innovations in production" (Chong, 2008). Researcher A. Chong (2008) interprets it as a modernist form of art that interacts with culture and society and rethinks and reflects complex aspects of human experience. The main core values of all filmmaking were the creation of a narrative, the development of characters and the search for a visual aesthetic of the environment in which to place them.

Animation plays an important role in various social, cultural and artistic spheres. In media and entertainment, it has become a key element of visual content, providing exciting and creative ways to tell stories. In the field of marketing, animation helps brands to create effective advertising campaigns, capturing the attention of the audience and strengthening their emotional connection with the product or service. Animation is also widely used in education, where it provides opportunities to visually explain complex concepts and enriches the learning process. In the field of medicine, it is used to create interactive simulations and visualisations that help in increasing the level of understanding and effectiveness of treatment. Thanks to a wide range of technical approaches and ways of realising the scenario, animation is a powerful tool for communication, education and influence, expanding opportunities in various fields of activity and social spheres. Thanks to a wide range of technical supports and ways to implement the scenario, animation is a powerful tool for communication, learning and influence, expanding opportunities in various fields of activity and social spheres.

The main technical approaches and ways of implementing the scenario in animation videos are: 2D animation, which is used to create two-dimensional animated

objects and characters moving in one plane; 3D animation, which provides the ability to create three-dimensional models that move in three-dimensional space, which gives greater realism and depth of the image; computer graphics used to create graphic images and scenes animated using special software; rotoscoping, which allows you to reproduce the movements of real actors or objects using an animated drawing based on filming; motion-capturing, which involves capturing real movement and turning it into an animated image with the help of special sensors and cameras; stop-motion animation, which requires physical modeling of objects, which are then shot frame by frame to create the effect of motion (Pettigrew, 1999; Moltenbrey, 2014).

The technique of stop-motion animation stands out among the mentioned techniques, as it allows the creation of a unique and authentic visual narrative with the help of physical models that are shot frame by frame. This method allows you to achieve a special aesthetic effect and expressiveness and attracts the attention of the viewer with its unpredictability, experimentation, artistic value, and the feeling of the invisible presence of the creator.

Stop-motion is a continuous frame-by-frame shooting. The basis of shooting are material objects made of one or another material (plasticine, loose materials, any objects that can be manipulated in the frame). This is a technique in which an object is physically manipulated and photographed in one frame so that it appears to be moving independently. Since the release of the first animated film by British directors J. Stuart Blackton and Albert E. Smith "The Humpty Dumpty Circus" (1897), which in the simplest way moved inanimate objects (wooden toys – animals and dolls), and to this day, this cinematographic method develops synchronously with technical innovations, experiments with materials and plots (Maselli, 2018). Initially, the artisanal aesthetics of this technique (since it was about the manufacture of appropriate props) with the increase in the use of digital technologies gradually evolves to more complex hybrid forms, where the quality of movement in the frame and the appearance of the props change synchronously with the general audiovisual message, leveling the boundary between the artificial and real environment.

In the 2020s, stop-motion animation demonstrates the synergy of traditional and innovative design methods. The experimentalism inherent in the technique allows to use in a single format the classic tried-and-tested and

quite innovative technical and artistic techniques. The global video archive, formed over more than a century, allows us to single out several main technical directions of frame-by-frame animation, which are formally consistent with modern 2D and 3D computer animation. That is, the manipulation of images (flat or three-dimensional) takes place on a plane or in the middle of the scene.

The first animation technique with frame-by-frame shooting is considered to be the "layout" which gives mobility to two-dimensional puppet figures composed of separate parts. Technically, the animation is formed within the two-dimensional scene where the plot action unfolds. The formal characteristics of such animation are flatness; fixed shooting angle; linearity of movement; limited perspective. Such a technique creates an emotional response in the viewer due to the possibility of using complex, detailed characters and the originality of artistic and figurative approaches to the visual message of the moving series (Furniss, 2017). Emile Cohl's innovative film "Fantasmagorie" (1908) is considered one of the first most famous films in this technique. Visually, the simplest almost schematic animation of a white line on a black background, which transforms from one object to another through visual morphing, makes a strong emotional impression even in 2024. In addition, the author-artist appears several times in the frame, whose hands first create with a pencil, and then outline the shape and movements of the little man – the main character of the animation.

The same planar language is characteristic of silhouette animation; loose or sand animation, for painting in various techniques (watercolour, oil, acrylic, painting on glass); pixelation techniques (animation of sequential photographs). Sand animation involves applying thin layers of sifted sand to the glass, which create an image, and the light surface gives the frames the necessary contrast and expressiveness. The technique was invented in the 1960s by the Canadian animation director Caroline Leaf and is still used to a greater extent in non-commercial artistic or social projects, as well as in advertising. An example of the commercial use of sand animation is the advertisement of the Ukrainian private medical institution "Oxford Medical" (N. Arnaut. Sand animation. Oxford Medical, 2018). However, in this film, sand animation does not convey all its form-creating possibilities and visual potential, as it is edited in synthesis with other techniques that weaken its communicative characteristics (Fig. 1).

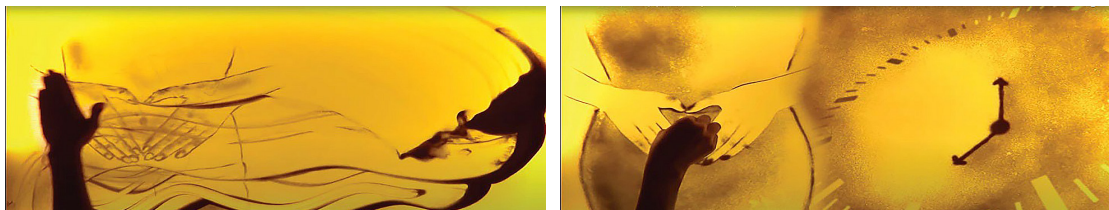


Figure 1. Advertisement of a medical center using sand stop-motion animation

Source: N. Arnaut. Sand animation. Oxford Medical (2018)

The animation of paintings, applications and collages in the stop-motion technique acquires expressive visual effects (Fig. 2). The frame-by-frame filling of the screen with graphic elements forming the environment and plot captures attention, as it introduces the viewer to the process of creating a work of art. Examples of such work are tapes by animator designer Lukas Rooney, where a paper collage comes to life and becomes a full-fledged environment for an animated film (*Lost sheep*. Paper stop-motion short film, 2023). The absence of the artist in the frame and the gradual filling of the compositional field with images and plot keeps the viewer's attention, as it creates the impression of a living world where the work of art tells its own story. This approach not only creates a unique visual experience, but also allows you to feel the very process of creating an artistic masterpiece, involving the viewer in the active perception and understanding

of the story unfolding before his eyes. Such integration, involving the viewer in the depth of the work, maximises the communicative potential of animation. Another method of pixelation allows you to give movement to sequentially taken photographs. For example, the technique of pixelation of a person's image was used in Norman McLaren's experimental film "*Pas de Deux*" (Animation: Norman McLaren's *Pas de Deux*, 1968). Pixelation is used to divide frames into pixels, which gives the visual material discreteness and forces the viewer to perceive the movement as a sequence of individual frames. In "*Pas de Deux*" this method is used to recreate the movements of the dancers, allowing you to explore and analyse their graceful movements with precision and detail. This creates the impression of a deeper immersion in the scene and facilitates the understanding of the mechanics of movement through visual representation.

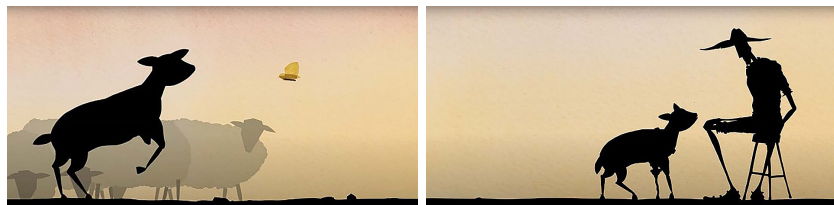


Figure 2. Paper stop-motion short film by Lukas Rooney

Source: L. Rooney. *Lost sheep*. Paper stop-motion short film (2023)

These techniques ensure the accurate transmission and depth of the ideological content of the film thanks to the technical features and artistic imagery inherent in classical works of art. At the same time, the means of influencing the viewer are an aesthetically expressive and attractive unusual visual form, the rhythm of the moving sequence and musical composition, symbolism that enriches the plot and strengthens its subtext, as well as the use of the language of colour, light, perspective to create an atmosphere and convey a mood. These techniques allow complex concepts and emotions to be expressed through images and symbols, making animation a powerful tool for communication and audience impact.

The three-dimensionality of the image, going beyond the boundaries of the plane and the formation of three-dimensional moving scenes in the environment make possible the techniques of puppetry, plasticine and subject (object) animation. These techniques demonstrate work with real material forms, which successively acquire movement in the frame and, together with direction, scenography and soundtrack, form an audio-visual story.

One of the first animations of this type is "*The sculptor's nightmare*" (1908, Director Wallace McCutcheon). In the film, the stop-motion technique is used to create an impressive effect of transformation and movement of inanimate objects. According to the plot of the film, a sculptor tries to create statues from a block of marble, but they transform into strange and illusory images that reflect his nightmares. Thanks to the use of the stop-motion

technique, the marble sculpture dynamically transforms into various forms, creating the impression of a living and magical process (Fig. 3). This film illustrates how the stop-motion technique can be used to create fantastical situations, images and reflect the inner conflicts and emotions of a person. It allows the viewer to immerse himself in a fantasy world using only physical objects and animation techniques (*The sculptor's nightmare*). In the films "*King Kong*" (1933), "*Star Wars*" (1977), "*Honey, I Shrunk the Children*" (1989), the stop-motion technique was used to create visual tricks – special effects of filming.



Figure 3. The subject (object) animation.

Sculptor's nightmare (1908) short

Source: Classics of world cinema. *The sculptor's nightmare* (1908) (2018)

It is important to note that puppetry and plasticine animation require careful work with props for each specific project. There are both established and experimental approaches to prop creation, which can vary greatly depending on script requirements, aesthetic priorities, and

technical constraints. For puppet animation, for example, props are often made of wood, fabric, and other materials, and may include additional details such as moving parts or accessories. Also, the 3D printing technique is relevant in the 2020s, which has a significant impact on the sector of the creative industry and with the help of which you can get the most realistic and suitable doll characters for various projects. In any case, regardless of the method, careful creation of props remains an important aspect of the animation process that adds depth and realism to any project. Each item of props must be created with attention to small details, as they can be exposed to the camera on a large scale. Careful work with props allows you to create atmospheric, lively and expressive objects that complement the plot and add depth to characters and scenes. As a result, the ability to create props becomes an important aspect of the animation process that adds a touch of craftsmanship and creativity to every project. Scientists and practitioners A. Gambrell (2011), B. Yekti (2017), L. Yilmaz (2019), studied the issue of props in their research. It is worth noting that both traditional hand-crafting and the use of 3D printing have their advantages and challenges when creating props. Traditional hand-crafting allows animators to realise their unique ideas and add a personal touch to each object. This method allows you to control every detail and interact with the material directly, which contributes to greater expressiveness and authenticity of the prop. However, this approach can require a lot of time and effort to manufacture each element, especially in the case of complex or detailed objects. On the other hand, the use of 3D printing allows you to create props faster and more efficiently, especially when you need to make many objects of the same type. This method also opens up opportunities to create more complex and detailed objects with the help of computer modeling. However, the downside can be less personality and authenticity that hand-crafting can have. The visual tactility that stop-motion carries when communicating is important. It is provided by a sense of the materiality of objects and the possibility of touch, formed depending on materials and textures; atmosphere, which is provided by imperfection in the frame; the opportunity to feel the evidence of human intervention in the animation process, which helps bring the audience even closer to the perception of the film (Yekti, 2017). Famous examples of puppet stop-motion animation using 3D printing technology are, in particular, "ParaNorman" (2012) from the Laika studio; "Frankenweenie" (2012) by Walt Disney Pictures. Despite the use of modern technological tools such as a volume optimiser or articulation fabricator along with 3D printing, the use of stop-motion in the mentioned films pays tribute to the classic style of film production due to the appearance of various creative non-standard elements. In particular, special attention is paid to the detailing of scenography and characters. In "Frankenweenie", subtle shades of black and white colour not only honor the aesthetics of old horror films, but also create a unique atmosphere that enhances the emotional impact on the viewer.

The plot in the short film "Bottle" by Kirsten Lepore (2010), where the characters are created by hand, acquires special communicative power. The plot of the film shows a transoceanic conversation between two characters made of sand and snow. They communicate using objects in the bottle. Through the magical world created by the author, this deeply psychological film gives the viewer the opportunity to feel the depth of friendship between completely different personalities and the tragic ending of this friendship. The visual depth, materiality and realism of the characters in a real natural environment have a convincing effect on the viewer and form a visual message that is difficult to achieve using exclusively digital methods. Hand-crafted and animated, the characters have a unique expressiveness and emotion.

In the case of plasticine animation, props can be made of modeling clay or silicone, in order to provide flexibility and the ability to change shape during filming. This type of animation provides a truly unique visual appeal and tactility that is difficult to achieve with other types of animation. Because each frame is created by hand, the animators need to demonstrate a high level of detail and precision so that the characters and elements of the scenes smoothly transition from one movement to the next. This adds a special "live" quality to the final product. Morphing is often used in such animation – characters and objects dynamically change, merge with each other, acquire completely different forms and meanings. Using plasticine or silicone allows animators to easily modify the shapes, facial expressions and poses of characters between frames, creating the illusion of continuous movement. This method also provides great freedom in experimenting with expressions and movement dynamics, which is critical for conveying the emotional state of the characters and the dynamics of the plot. Plasticine animation is especially popular in children's films and cartoons, as well as in commercials, where a bright, colourful and instantly attention-grabbing visual style is required. Soft three-dimensional shapes and vivid colours can create an interesting and memorable image that will remain in the minds of consumers. Such animations can be particularly effective in attracting the attention of children and young people. In addition, plasticine animation allows you to easily bring to life any idea or concept, even the most unconventional. It provides many opportunities for a creative approach and experiments with visual effects. Thus, it can be used to advertise any product or service, from children's toys to food or cars. Also, it is successfully used in social projects and advertising. As an example, the "Dumb ways to die" project of the Melbourne Railway (Australia) is designed to raise awareness about railway safety. An interesting example is the English cartoon "Creature Comforts" by Aardman Animations. The plot of the cartoon episodes is built around interviews with animals in their natural habitat and has a social context. At the same time, the soundtrack of the film was created by superimposing real interviews of real people on a video with plasticine animation. In general,

plasticine animation in advertising is a powerful tool for creating attractive, emotional and memorable advertising materials that can significantly increase the effectiveness of marketing or social campaigns.

Puppet and plasticine animation require careful work with props for each specific project, on the other hand, objective animation, manipulating ready-made objects in the frame, almost does not require additional equipment. The relative affordability and simplicity of the technique, as well as its visual characteristics, make it in demand, in particular, in the advertising industry. It ensures the broadcast of the advertising idea through the focus of the plot in the conditions of real entourage and real objects. One of the advantages of subject animation is its ability to evoke an emotional response from the audience due to the visual impact and realism of the images. It can help make a product or service more attractive to consumers by showing it in real situations and environments. In addition, object animation can be a fairly economical option for advertising agencies, since it does not require complex processes, invited models, trips to filming locations, and expensive special effects. This allows you to effectively use a limited budget to create advertising content, without losing the quality and effectiveness of advertising.

Famous examples of modern advertising using the stop-motion technique are, for example, the advertisement “The Cog” for the car brand Honda. A complex sequence of movements, which clearly demonstrates the interaction of various car components, forms an exciting visual sequence, holds the viewer’s attention, and forms a holistic understanding of the connection between technology and product quality (Honda Suisse, 2013). In the Nokia advertisement “Dot”: The world’s smallest stop-motion animation character shot on a Nokia N8” stop-motion animation was used to present the powerful technical capabilities of the camera, which captures the movement of small details in

a story clip (Nokia No8 Fan Club, 2010). Such advertising communications with the techniques of moving inanimate objects in a frame where there is no person can keep the viewer’s attention much longer due to unexpected scenarios, dynamism, expressiveness and emotional saturation of the frame. The viewer delays looking at the ad, hoping for a decisive moment in the development of events, which increases the overall time of interaction with the ad and improves its effectiveness (Fig. 4).

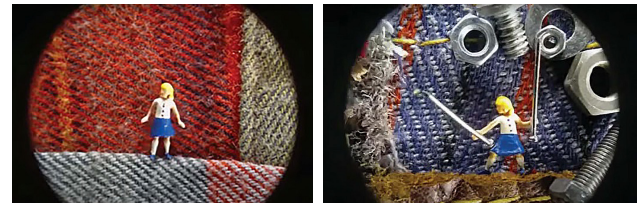


Figure 4. Holding the audience’s attention due to an unexpected scenario. Dot. The world’s smallest stop-motion animation character shot on a Nokia N8
Source: Nokia No8 Fan Club. Dot. The world’s smallest stop-motion animation character shot on a Nokia N8 (2010)

Stop-motion animation allows you to create a unique visual form of a communicative message, giving a significant level of control over every aspect of visual expression, however, this process requires, unlike linear video or video graphics, considerable time and effort.

The design tasks of audiovisual works using stop-motion animation can be diverse and depend on the specific goals and context of use. In particular, these can be short animated films, advertising videos, art projects and installations, educational programs and interactive demonstrations (Table 1). Each of the tasks in these areas has specific requirements for visual style, technical complexity and way of interacting with the audience.

Table 1. Implementation of communicative tasks in audiovisual works in the stop-motion technique

Type of audiovisual work (genres, subtypes)	Scope of use	Characteristics of project approaches	Peculiarities of using stop-motion for effective communication
Short animated films (musical, story, concept, adapted, etc.)	Music industry, corporate communication, film festivals and contests, social campaigns	Require in-depth development of the script and characters, as well as attention to detail in creating a visual atmosphere. Both aesthetic and narrative aspects must be considered to ensure the film’s integrity and appeal	The stop-motion technique reveals the story through the interaction of original images. Their artistic content acquires special expressiveness. Such projects can use both planar and object animation and achieve a communicative goal due to high artistic characteristics
Advertising animated videos (commercial, social)	Television, Internet, external dynamic advertising, mobile applications	The goal is to quickly and effectively attract the attention of the consumer. They are usually short and require a high level of impact in a minimal amount of time, so stop-motion animation in this context can be used to create vivid, memorable scenes that will be easily associated with a product or brand	The technique allows you to show a product or service in detail, to emphasise their features and advantages, to emphasise uniqueness due to an original visual presentation, to evoke an emotional response from the viewer. Stop-motion advertising is qualitatively different from standard video and animation techniques, increases the trust of the viewer, as it creates the effect of a friendly, almost family story

Table 1. Continued

Type of audiovisual work (genres, subtypes)	Scope of use	Characteristics of project approaches	Peculiarities of using stop-motion for effective communication
Art projects (video art, installation)	Museums and galleries, cultural and art festivals, public and commercial spaces	It is important to achieve a certain atmosphere or convey a deeper philosophical or social message. Animation can serve as a way to explore form and movement, as well as give new meaning to familiar objects or materials	The use of stop-motion animation in art projects can add a new level of expressiveness and interactivity to works of art, allowing viewers to interact with animated objects and scenes, see dynamic changes in the created image, forming a new unforgettable experience
Educational programs and interactive demonstrations (educational, entertaining, educational)	Education, professional development, corporate training, inclusive training	The need to create resources that increase audience engagement are easily perceived and assimilated	Stop-motion helps create clear and interactive visuals that help students better understand complex learning material. Animation in this context performs not only an educational function, but also becomes a means of attracting attention and increasing interest in the subject

Source: developed by the authors

In conclusion, it can be noted that the communicative potential of stop-motion animation is ensured by such characteristics as visual comprehensibility (transmission of complex ideas, author's messages and concepts through a clear visual representation); emotional expressiveness; ease of perception by a wide audience; completeness of information transmission (due to the possibility of detailed reproduction of objects and actions); the ability to create a special viewing atmosphere; high artistic characteristics.

Animation (commercial or non-commercial) is traditionally considered to be a self-sufficient work, and motion design is part of a system with a clear utilitarian meaning. The technology of stop-motion animation ensures the implementation of these two relevant project strategies and allows solving communicative problems of different levels, demonstrating an idea or meaning in an understandable, emotionally effective artistic way.

CONCLUSIONS

Stop-motion animation is an effective tool in modern audio-visual design practices. It increases the emotional involvement of the audience and improves the perception of communication content due to its attractiveness and experimental nature. The detail in the frame, the visual saturation of the story, the expressiveness and emotional expressiveness inherent in this technique contribute to the solution of design problems where a deep narrative impact needs to be achieved. This animation technique allows for the creation of visually rich and intricate scenes, each frame meticulously crafted to enhance the storytelling experience. The tactile and tangible quality of stop-motion, achieved through the use of physical models

and materials, provides a unique aesthetic that can evoke strong emotional responses from viewers. Stop-motion animation's ability to convey complex emotions and subtle nuances through detailed character movements and facial expressions makes it a powerful medium for conveying intricate stories. Its versatility allows designers to experiment with different textures, lighting, and perspectives, creating a visually captivating experience that can effectively communicate the desired message.

It was found that in the 2020, the techniques of two-dimensional (overlapping, silhouette, loose, painting, pixelation) and three-dimensional (doll, plasticine, object) stop-motion animation remain relevant, which provide a wide range of opportunities for creative expression and communication with the viewer. Design tasks for audiovisual works using stop-motion animation include short animated films, commercials, art projects and installations, educational programs and interactive demonstrations. The effectiveness of the communicative potential of the technique is ensured by visual clarity, emotional expressiveness, ease of perception by a wide audience, the ability to create a special viewing atmosphere, as well as by high artistic characteristics. The issue of the communicative potential of stop-motion animation in the context of project tasks of audiovisual art considered in the article proves its effectiveness and lays down prospects for further research.

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CONFLICT OF INTEREST

None.

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Комунікативний потенціал стоп-моушн анімації в практиці сучасного дизайну

Анотація. Актуальність дослідження визначається необхідністю обґрунтування та впровадження ефективних візуально-нарративних медіаформатів для створення дієвих візуальних комунікацій, здатних чітко доносити повідомлення та ідеї до глядача. Мета роботи – виявити та оцінити комунікативний потенціал стоп-моушн анімації в контексті аудіовізуальних практик сучасного дизайну. Методологію дослідження формують загальнонаукові та спеціальні методи, зокрема, порівняльно-історичний аналіз, науковий аналіз і синтез, методи візуального спостереження, моделювання, мистецтвознавчий та контент-аналіз. У дослідженні обґрунтовано технічні прийоми, формальні та художні підходи стоп-моушн та виявлено їхній вплив на комунікативний потенціал анімації в контексті різних проектних завдань. Доведено ефективність використання інструментів стоп-моушн анімації в сучасних практиках аудіовізуального дизайну для підвищення емоційної залученості аудиторії та покращення сприйняття контенту за рахунок привабливості та експериментальності. Здатність стоп-моушн анімації до деталізації, візуальної насиченості, експресивності та емоційної виразності може відігравати ключову роль у вирішенні дизайнерських завдань, де необхідно досягти глибокого нарративного впливу. У роботі обґрунтовано доцільність використання основних технічних прийомів стоп-моушн анімації при реалізації конкретних концептуальних проектних завдань, зокрема у короткометражних анімаційних фільмах різних жанрів, у рекламних відеороликах, в арт-проектах, де поставлена мета може бути досягнута за рахунок високих художніх характеристик візуального ряду, інтерактивності та емоційної взаємодії з глядачем. Практична цінність роботи визначається можливістю втілення результатів дослідження в практичні рекомендації для реалізації конкретних проектів. Результати дослідження можуть бути корисними в академічному середовищі для подальшого розвитку теоретичних засад стоп-моушн анімації та розширення проектних підходів в освітніх курсах, пов'язаних з аудіовізуальним мистецтвом та візуальною комунікацією

Ключові слова: аудіовізуальне мистецтво; візуальна комунікація; об'єктна анімація; експеримент; проектне завдання; реквізит; технічний підхід