

The Importance of Composition in the Context of Stop-Motion Animation Aesthetics

Hami Onur Bingöl

Dumlupınar University, Kütahya, Turkey

Abstract: Stop motion animation is one of the unique applications that has taken its place in the history of cinema radically. Surprisingly, stop motion animations have gone down in the history of art with some primitive and mechanical methods like Zoetrope and similar ones long before the invention of the cinema. Its samples that are created with today's perspective date back to 1930's and the directors continue to apply and the audience watches accordingly with the same interest today, just like in the past. Even though stop motion animations seem like obsolete at first sight, they are still used for commercials. However, the photography discipline, which has a deep relation with the cinema, is an effective factor for stop motion animations. Because stop motion animation is recorded by the camera. The first trait to shoot a stop motion animation is patience. It takes so much patience that an animator takes hundreds of shots for a scene which will be watched for two seconds by the audience in some cases and she/he makes changes on the figure as it requires. This leads to distraction or having a low opinion on the composition of the film on which the animator works. However, we could not expect success from stop motion films that are created without paying attention to the structural elements and composition rules of the photograph. The objective of this study is to examine and identify importance and necessity of the composition applications for the stop motion animations in a historical and aesthetical manner.

Keywords: Stop motion animation, photography, composition, design.

I. INTRODUCTION

Even though there has been a deep relation between photography and motion picture since the invention of two concepts, this has still been disregarded by many artists that interest in the forms of such art. Today, some motion pictures may be applied without considering the relation between photography and cinema from time to time or may be forgotten or not being aware of it for it has not been learned in the first place in the most probable sense.

It is a widely regarded fact that cinema has been the most charming artistic movement of the last century. Even though many applications have evolved in theory and practice during the first period of the cinema, one of the elements that has not been changed is the rules of composition. The photography and cinema have to work with a proper composition during the creation as it is in all forms of plastic arts.

What is meant by a "proper composition"? It is quite difficult to answer this question. Although some basic visual rules gain validity in a universal sense, the answer to that question depends on the culture, language, lifestyle of the artist and even on what he/she eats. J.M. Brodrick hints that there are some specific rules but no certain definition by saying "The artist should control the flow of the composition, which means sometimes breaking the rules." exactly.

So what is the proper composition? The simple answer to this question could be "not considering the camera with the view that you see with the naked eye". The perception of an individual that watches around with his/her eyes only binds herself/himself. However, the images shot by a person that uses camera will be watched by other people. That's why the position and handle of the camera is one of the most important composition applications in a motion picture.

It is not surprising that the most successful directors of photography are the photography artist. Because the photography teaches the basic methods of creating an aesthetic composition and perception management as a discipline. A good

scenario can be wasted in the hands of a bad director. However, a good director cannot achieve anything with a bad scenario. The factor that is ignored in both cases is the composition which is a work of the director of photography. A director of photography, who does not do his/her work well, will negatively impact the quality of the movie, no matter how well the scenario or the director. Please note that the composition is one of the most important factors that makes the motion picture attractive, gathers attention and evokes admiration on the audience.

Since Pre-historic times humans drew cave paintings of animals with multiple legs up through to Leonardo Da Vinci's sketchbooks, artists have tried to create art that moved (Sito, 2015:20). An animation may be, in simplest terms, any moving presentation—be it through film, video or computer that shows change over time, space, and/or attribute. Animations, which often run multiple frames per second, differ from computer “slide shows,” which are simply a series of graphics presented concurrently, often employing transitions, such as fades or wipes, from frame to frame (Lobben, 2003:318). It is ignored by many colleagues that animation is a motion picture form that had already existed in late 1800's, long before the invention of the cinema. It is possible to say that there is a serious competition between the inventors and engineers to find a way to move a stable image at that time Zoetrope (See. Figure-1) is a simple mechanical motion picture that had arisen in period long before the first cinema samples and is one of the products of such competition.

T. H. McALLISTER, OPTICIAN, 49, NASSAU STREET, N. Y.

ZOETROPE.



The **ZOETROPE**, or “**Wheel of Life**,” is an instructive Scientific Toy, illustrating in an attractive manner the persistence of an image on the retina of the eye; it consists of a card-board cylinder, about 12 inches diameter, and 8 inches deep, with 18 equidistant narrow openings, each about 3 inches long, arranged near the top as shown in the engraving. The lower end rests on an iron shaft, rising from a substantial wood base; on strips of paper, about 3¼ inches wide, 36 inches long, are printed figures of men, animals, etc., in different positions, which are placed in the cylinder. By revolving the cylinder by the hand, and looking through the openings, the images pass so rapidly before the eye are blended, so as to give the figures the motions of life in the most natural manner. As many persons as can stand around the Zoetrope can see the movements at the same time.

PRICE OF THE ZOETROPE, \$2.50.

Including following series of 12 amusing pictures: Base-ball Player, Chewing Gum, Dolphin Swimming, Doneybrook Fair, Gymnast, Hash Machine, Jig Dancer, Johnny Jumper, Keep the Ball Rolling, Kick her up, Old Dog Tray, Rattling Pitchforks.

Figure-1: Zoetrope, (Ives, 2014:1) Under the copyright of Rob Ives

It is not wrong to name the first samples of Zoetrope as the first samples of the stop-motion animation film. In the period following the Zoetrope, it is known that the first stop-motion samples had existed that have been shot by recording on a light-sensitive surface. Unfortunately, none of the early period motion picture examples has been reserved today. Because early period examples have been created before the invention of the celluloid films, which are relatively more durable against time and they get stale or vanish under conditions in which no special preservation methods have been used.

2. ANIMATION

Animation, which may be named as motion fantastic pictures, has the potential to reach developed, fledgling, or emerging audiences in a way that live-action film is unable to because of subjective, cultural, or technical shortcomings. The form can seemingly make the “impossible” possible and has the potential to communicate with young and old audiences alike, regardless of ethnicity, gender, religion, or nationality. “If used intelligently, animation can draw viewers together, crossing boundaries and uniting audiences under thematic ideas and concerns, making it a very attractive medium for artists, designers, producers, directors, musicians, and actors to use to recount stories, ideas, and opinions to a diverse range of cultures” (Selby, 2013:7).

The word “animation” derives from the Latin verb “animare”, meaning “to give life to” suggesting that the illusion of movement has been given to inanimate forms. Animation essentially involves the artificial creation of images in a sequence that appears to move through the “persistence of vision”: our eye reads the images in quick succession and our brain tricks us into believing that the images are moving. In reality, the movement is created by the spaces in between the frames. The Scottish-born animation pioneer Norman McLaren famously said: “Animation is not the art of drawings that move, but rather the art of movements that are drawn.” (Selby, 2013:9).

3. STOP MOTION ANIMATION

It is possible to name stop-motion animation films as the whole of motion pictures that are combined with partial movements on an open space or stage that are predefined or existed with many types. Stop-motion could be generally defined as creating the illusion of movement or performance recorded over successive exposed frames of film by manipulating, usually by hand, some solid object or puppet or cut-out image in a spatial physical setting (Purves, 2010:5).

Stop motion can be two-dimensional or three-dimensional in format, and includes techniques such as oil- or sand-on-glass animation, two-dimensional cut-out animation, puppetry using stringed or silhouette forms, and clay animation (Selby, 2013:135). Stop-motion animators create a moving performance between frames without ever being perceived individually themselves, creating the illusion of independent continuous movement. In the past this illusion has been attributed to a theory called ‘persistence of vision’ (Purves, 2010:17).

In stop-motion, as with all animation, the successful creation of continuous movement depends on how one frame, or one position, relates to the previous and subsequent frames. The more a frame connects to the previous one, in terms of composition, movement, color and so on, the better and more credible the flow of the animation (Purves, 2010:19). Stop motion is process heavy, requires detailed planning, and combines elements of science and optical illusion to create movement (Blair, 2014:8). Before begin to shoot, a director should make a decision whether going to shoot animation on a video camera or a stills camera. At the professional end of the scale there is High Definition Digital Video or Digital Single Lens Reflex stills cameras used for commercials and features. Obviously, the more expensive the equipment, the better the quality of the image (Shawn, 2008:9). There is another different significant phenomenon for stop motion film that is attempted to be created; the composition. Even if you have the most successful digital camera in the world on your hand, the director, who is not able to establish a proper composition, could not shoot a film above average. In particular, composition and image management is one of the key aspects of the creation of the stop-motion films. Because the effective factors such as the location of the camera during the stop motion film shot or moving direction of the figure/figures interfere with the subconscious of the audience. This impact may increase the interest of the audience in the film or put the audience off watching the film by impacting in an opposite way.

4. UNDERSTANDING THE RULE OF THIRDS

The definition of composition is arranging all the visual elements in the frame in a way that makes the image a satisfactory and a complete whole. Integration of the image is obtained by the positioning of mass, color and light in the most pleasing arrangement (Ward, 2003:10). Composition is essentially organization, the ordering of all the possible graphic elements inside the frame. This is basic design, and photography has the same fundamental needs in this respect as any other visual art (Freeman, 2007:33). If we consider every field of life as an order, putting the composition in camera use to the background will be an utter omission, not only in forms of art. I think that the following approach may express the composition in the management of photography in a well-defined manner: It is possible to define the artistic photography within an order as irregularity and rule of thirds in composition is one of the main means of having this orderly irregularity.

Perhaps the most used and useful rule of composition is the rule of thirds. If one imagines a frame with a line across both the horizontal and the vertical positions, one-third of the frame width in from each of the four edges of the frame, then any object placed on this line will have added importance in the overall picture. This division also produces nine identical boxes within the frame (Wheeler, 2005:159). In this way, points of interest would be obvious. If the designer of the photography places the object or figure of emphasizing on one of the junction points, she/he would get the image that is the closest to the "aesthetic" one. In case of using one of the junction points, the remaining three points will remain uncovered, and as a result, there will be a "space".

"Space" is a contemporary object to engage the attention of the artists in the art movements that are highlighted after 1960's. During the modern history of art, we can observe that space is a tool and a target to reach aesthetics. Minimalism make use of the concept of space heavily and it is possible to say that the emerging minimalist art cinematography also affected.

However, it is not enough to create a proper composition by only placing the figure or object that is intended to be emphasized in a motion picture on one of four junction points. Even though you place the object emphasized on one of the junction points, there are still rocks to clean to reach a proper composition. Namely, the use of junction point varies on the position of the figure or its direction. For example, it is wrong to place a figure, looking towards right on a composition from the right side of the figure. The direction of the figure should be empty. To give another example, it is one of the common mistakes to try to create a space by taking out the figure from an irrelevant part of the body (for example right under the knees) to create an empty space.

To illustrate in practice, we can observe a sophomore project created for the Motion Picture Design course in Figure-2. In a scene from a three-minutes short film that takes place in the train terminal of Kütahya city, the student has successfully applied the rule of thirds by placing his figure on the right side of the frame by making the figure look to the left and left a space in the direction of looking of the figure. This particular example is the simplest expression method for rule of thirds.

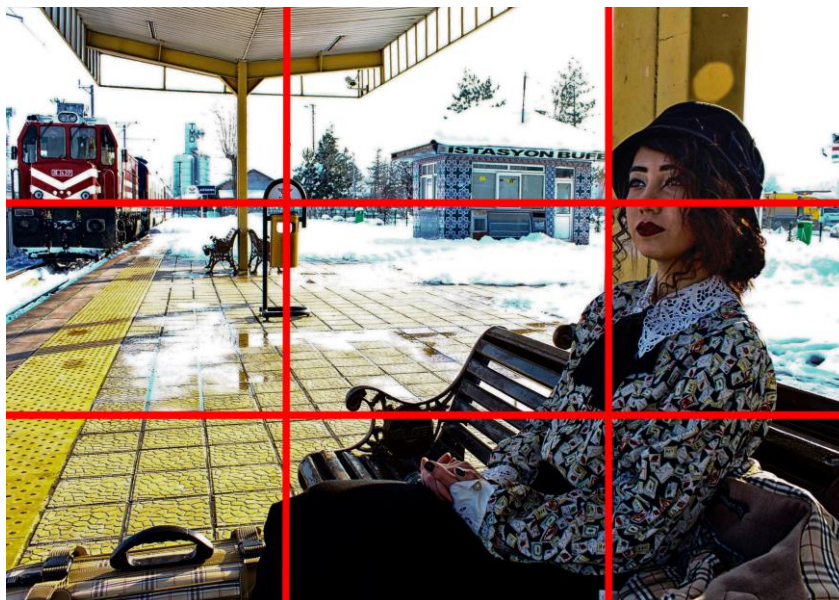


Figure-2: A movie scene from sophomore project.

The term "gestalt" used in this context refers to a configuration or pattern having properties that cannot be derived from the summation of its component parts. This relates to the underlying observation that the brain will tend to perceive visible objects in their entirety rather than perceiving their individual parts (Williams, 2014:22). Therefore, a naked-eye, watching a scene to be recorded, has a hard time to distinguish an object or figure of emphasize from other factors. In a simpler term, while a naked-eye could not perceive two or more different elements in the same scene at the same time, the camera presents all objects and figures within the frame for the perception of the human eye. This unique visual feature allows the audience to either enjoy or bore from the composition presented by the motion picture and directly affects the success of the film.

It should be kept in mind that an eye that is disturbed by the space while watching an artwork or product of design is illiterate, deprived of observing the aesthetics and uneducated eye. Because the relationship between the human brain and eye is designed to detect objects seen at the midpoint of the frame. This factor leads the camera users to use it with an instinct to take the images in the middle of the frame in an unintentional and instinctive manner. Therefore, it is necessary to teach the individuals to design the motion pictures of the future the rule of thirds, golden ratio and importance, and necessity of space accordingly. Considering that motion pictures on which such applications are ignored or disregarded will be watched by the masses, it may lead to the lack of social aesthetics. As a result, the art of the world may move forward in an undesirable direction.

5. COMPOSITION STOP MOTION ANIMATION

Few people today, would deny that sight, or vision, is as vital and important a system of human communication and cultural expression expression as language. Indeed, it has become something of a commonplace in the past thirty or forty years to point out the literal and metaphorical centrality of vision and the visual in western cultures. A report, titled Humanities in America, for example, which was produced by the National Endowment for the Humanities, suggested that “our common culture seems increasingly a product of what we watch” (Bernard, 1998:1). The content regarding the commonly watched visual products may direct a society in a political or sociological manner. It may set the societies in motion or calm them down. For instance, it may be expected that the future generations of a country that broadcasts English cartoons in their national television channels with subtitles that can be perceived by the children that only begin to read and have a native language than English may speak English with a proper accent as a society. This example has the same impact on how visual products are watched. For the motion pictures that are admired by the masses from time to time, the compositions become a sensitive issue that requires an extreme attention, considering that audience is make up of masses. Considering the time spent in front of the television by the people on a daily basis, it is possible to say that the films, cartoons, animations and similar visual products that the people watch influence their ability to see aesthetics and their social culture.

I have discussed that the composition, which is required to be considered during the creation process of works of art and design, is disregarded by the artists and designers. So, what type of results arise out of it? It may be arguable whether there should be a conscious composition concern to define a stop motion animation film as a "beautiful" one, but despite this notion it is totally necessary. Because the composition of a shot conveys meaning not only through the arrangement of visual elements in a frame, but also by the context in which it is presented (Mercado, 2011:3). The attempt to look at the works of art and design themselves, then, is not as straightforward as it might first appear. As soon as a definition of either art or design is proposed, it seems that there are other social groups or other historical periods, which would define them differently. Consequently, different objects, practices and so on count as art or design for different groups and periods. There are no objective, neutral and all-encompassing definitions of art and design that may be used in the study and explanation of visual culture (Bernard, 1998:131). However, we can say that there are some rational methods to determine the "aesthetics" or ability to perceive the beautiful one. One of these methods is the concept of the golden ratio. In simple terms, It is possible to define the most aesthetic ratio of a part of the entire composition in a work of art. According to Leonardo Da Vinci, a key figure in establishing a composition that is closest to the art (the beautiful), the "golden ratio" is a technical application that is believed to yield the most aesthetic results in cinematographic composition. The perception of the mankind may vary from society to society or from culture to culture, however; the aesthetics of the golden ratio used in the works of art has never been changed or got old with its magical glamor.



Figure-3: Tim Burton's Corpse Bride (2005), © Warner Bros. Director of Photography: Pete Kozachik

Composition is the process of identifying the formal elements and organizing them to produce a final image. It is the mental editing used by a photographer, which makes the final image easily 'read' by the viewer. Sometimes photographic composition includes the manipulation of light and the subject – more often, it is concentrated selection and emphasis (Brake, 2010:13). It is almost impossible to separate a proper composition from the golden ratio in cinematography. We can prove this argument by considering that the thinkers, architects, physicists, artists and even musicians have been interested in the concept of "golden ratio" since ancient ages. If this assertion moved a step further, long before the existence of the disciplines mentioned above, there scientists who mentioned about the "golden ratio" even for the existence philosophy of nature.

The aesthetic appeal of the golden ratio in art has been the subject of a number of studies. While it is true that many paintings include rectangular components, which have aspect ratios conforming to the golden ratio (especially before the modernism era), there is rarely any evidence that the artist considered the golden ratio in any conscious way in the composition of the painting (Dunlap, 1997:2). In this case, it is a clear evidence that the composition ratio that is the closest to the "aesthetic" one is through "golden ratio" concept.

A director of photography has to pay attention to the camera angle change during the shooting of a stop motion film, which is a different dimension. If the director of photography does not change the camera angle in accordance with the previous scene, this may lead to "the leap of the scene" that we observe in classical movies. Another mistake that beginners often do is the position of the camera in using multiple camera arrangements. This may be acceptable for a sophomore, but it is interesting that professionals still do such mistakes (see. Figure-4).

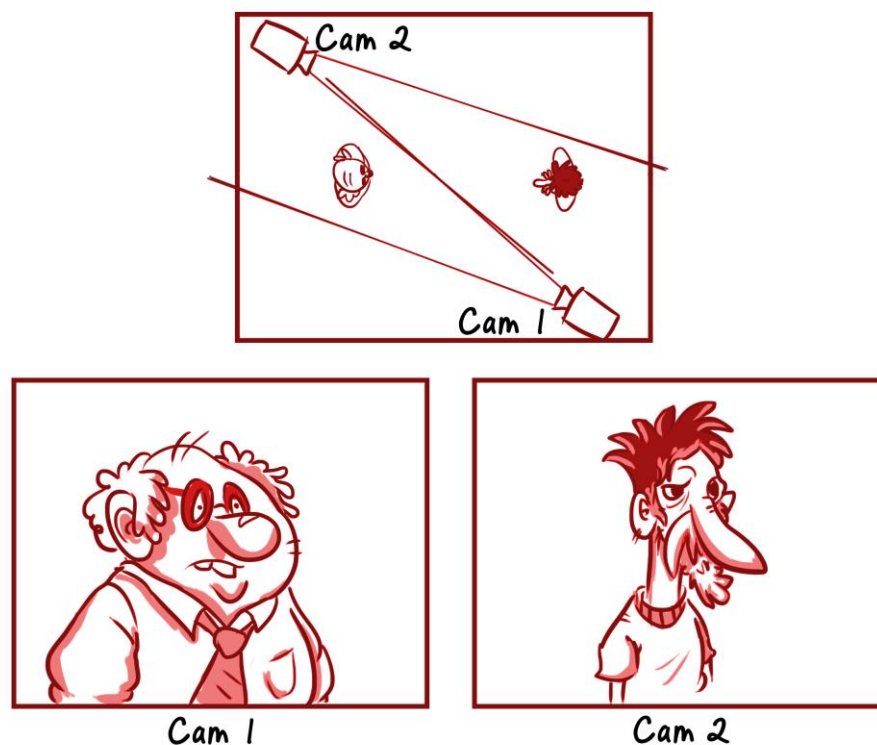


Figure-4: A sample of camera angle fault.

Many film critics, even some simple camera ignores the error. It is impossible to create a work of art or design that is right and close to the art without the obsession of "perfectionism". Considering that in terms of composition, we should expect that every director of photography should be a perfectionist. Regardless of how you pay attention, there may be composition errors that are ignored or unnoticed. However, it is not possible to accept the composition error that has been done by symbolizing the shooting the two figures which were having a conversation as shown in Figure-4. The reason is that such two cameras see the subject at the right side and talking characters will probably be reflected in a scene from right sides of both characters, not changing from right to left side. This amateur attitude will lead to discomfort for the audience.

In addition to the above, when it comes to camera movement, stop motion drew the short straw. CG animation produces amazing, dazzling camerawork taking the viewer anywhere at the press of a button. With planning, so can drawn animation, but with puppets, it's not easy. The physicality that is such a joy in stop motion has the drawback of the camera being in the way. In live action, the camera takes the motivation to move from the actors; with stop motion, in effect, the animator takes his motivation from the camera. Once a camera move is planned, as it must be, the animator has to move at a certain speed, reaching a mark at a particular frame. If a camera move were to adjust to every change in speed of the animation it wouldn't flow. The implementation of this concept is hard and restrictive (Purves, 2010:170-171). Furthermore, the directors of photography for stop motion have a hard time in creating depth of field and blurring impact. Such effects may be added via a software at a later phase after shooting the composition during post production. However, they are not preferable for they require additional cost.



Figure-5: Shaun the Sheep, 2017 © Aardman Animations Ltd.

It can be argued that an object may be completely perceived if it is compatible with an organized shape. There always is a variety of visual distractions that accompany the shape being perceived, and changes it with rather vague details and nuances. However, this does not provide much of a contribution to the visual sense (Arnhem, 2007: 44). At this point, the framing techniques in a stop motion film and structural elements of cinematography offer an excellent expression opportunity to the animator to tell his/her story. Therefore, the animator has to know the structural elements comprising cinematography in the projects when she/he does not work with a director of photography. Such composition preferences may change not only according to the scene structure that are expected to realize in stop motion animation but also to the mood of the figure or figures on the scene.

Directors of photography are responsible for all matters pertaining to the photography of the film – lighting, exposure, composition, cleanliness, etc. (Wheeler, 2005:32). The animator has to know that she/he has to consider the stop motion film as a communication form and apply the structural elements of the composition in order to convey such communication in a proper manner. While the composition represents the language of the director, mise-en-scene represents the letters of the language that she/he speaks. Figure 6 represents the scenes from a sophomore project created during Motion Picture Design course. While the student seems not to be troubled by technical impossibilities, starts his scene by shooting his actress from the right golden ratio. At the end of the scene, the camera stays stable at where it started and the student plays his actress like a puppet thanks to the stop motion animation techniques and finishes the scene at the top left corner. The space for the look of the actress is always empty and the camera is partly stabilized in such a short period of time that consists of a combination of approximately 75 shots.

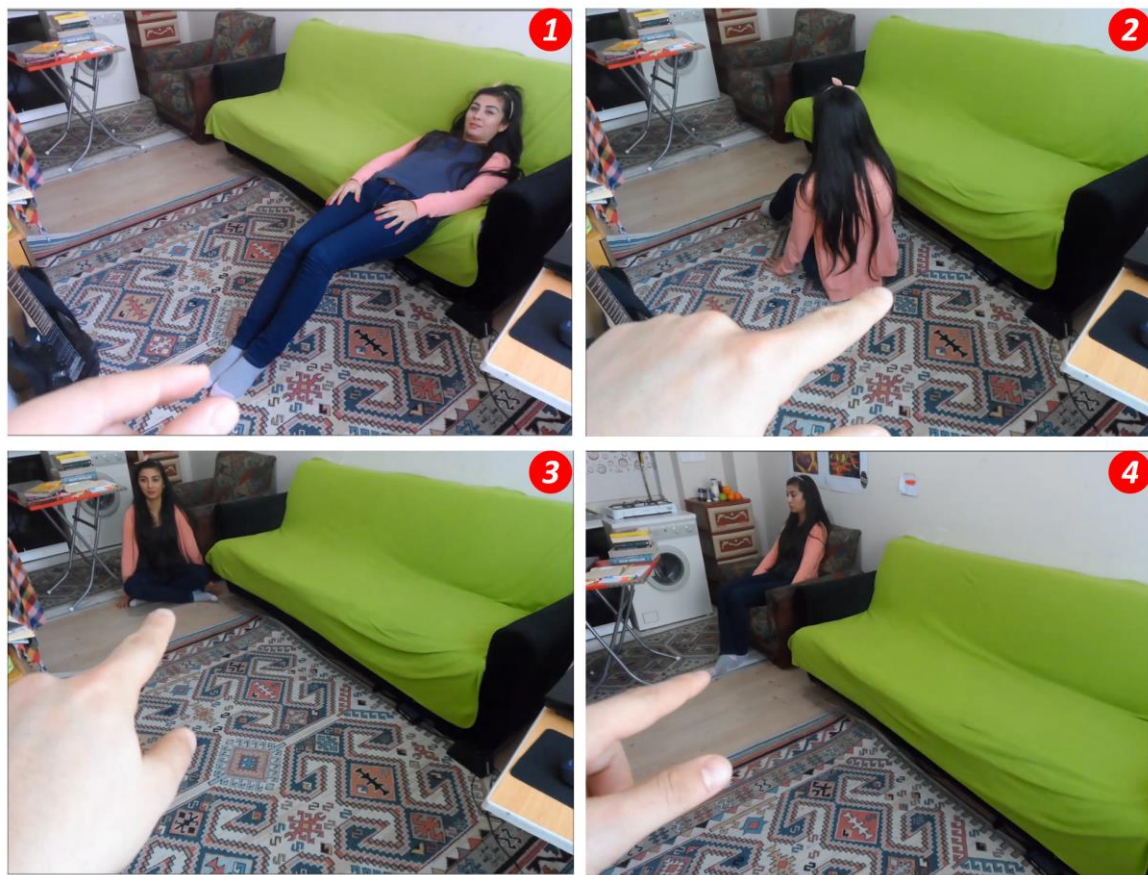


Figure-6: A stop motion student project with a human figure.

Camera angles, continuity, cutting, close-ups, and composition are all important elements to any film production, including frame-by-frame animation (Gasek, 2012:79). However, the most important thing for a director of photography to pay attention is to balance camera movement in stop motion animations. Even the smallest camera movement made carelessly will disrupt the harmony with each stage of the animation and lead to differentiation of the image and distract the perception of the audience. Other than such negative factors, it will give the impression that the film is careless and of a poor quality.

6. CONCLUSIONS

2D and 3D animation films may be different from live action for several aspects, however; the stop-motion animation films are considerably close in terms of product sense. When we add the robust relation between the motion picture form and photography discipline, we can clearly observe the importance of composition and cinematography in stop-motion animation films. It is vital to apply structural elements of the photography in a motion picture. In some cases, the directors of photography may forget, ignore some rules that are adopted by cinema professionals, or ignored by cinema critics. However, it is still impossible to correct a composition error that has been done priorly, especially for a stop-motion animation film, even in the digital age that we are in. Therefore, the directors of photography should pay particular attention to this issue.

Space is an important element in creating an aesthetic structure, particularly in 2D forms of art. Because the emphasis revealed through space, the perception of the viewer can be directed and the quality of the emerging motion picture can be improved. In addition to this concept, the directors of photography are expected to apply composition rules in stop motion animations which require extreme patience and have different production processes, just like they are in the conventional films and for the photography discipline. Dating back to the oldest motion picture, stop-motion animation has never lost its popularity until today and will continue to exist in the future. Composition gains more importance in manual stop motion animation production which are still popular despite CG competitors, which are the products of the ever-advancing technological facilities.

There is no doubt that stop motion animations, shot by considering the many structural elements of the photography and composition, not only admired by the audience but also play a triggering role in creation of pioneering and innovative works of art.

REFERENCES

- [1] Arnheim R. "Görsel Düşünme", Metis Yayıncılık, 2007.
- [2] Bernard M. "Art, Design and Visual Culture", Palgrave Macmillan, 1998.
- [3] [3].Blair JM. "Animated Autoethnographies: Stop Motion Animation", Art Education, pp.6-13, March 2014.
- [4] Dunlap RA. "The Golden Ratio and Fibonacci Numbers", World Scientific Publishing Co. Pte. Ltd., 1997.
- [5] Freeman M. "The Photographer's Eye, Composition and Design for Better Digital Photos", Focal Press Publications, 2007.
- [6] Gasek T. "Frame-by-Frame Stop Motion", Elsevier Ltd., 2012.
- [7] Ives R. "Make Your Own Movie Machine", Dover Publications Inc., 2014.
- [8] Lobben A. "Classification and Application of Cartographic Animation", The Professional Geographer, 55:3, pp.318-328, 2003.
- [9] Mercado G. "The Filmmaker's Eye, Learning (And Breaking) The Rules Of Cinematic Composition" Elsevier Inc., 2011.
- [10] Praker D. "The Fundamentals of Creative Photography", AVA Publishing SA, 2010.
- [11] Purves B. 'Stop-motion', AVA Publishing, 2010.
- [12] Purves BJC. "Stop Motion - Passion, Process and Performance", Elsevier Ltd., 2010.
- [13] Selby A. Animation, Laurence King Publishing Ltd., 2013.
- [14] Shaw S. "Stop Motion Craft Skills for Model Animation", Elsevier Ltd., 2008.
- [15] Sito T. "Moving Innovation: A History of Computer Animation", The MIT Press Cambridge, 2015.
- [16] Ward P. "Picture Composition for Film and Television", Focal Press An Imprint of Elsevier Science, 2003.
- [17] Wheeler P. 1Practical Cinematography Second Edition1, Focal Press An Imprint of Elsevier Science, 2005.
- [18] Williams RG. "Mastering Composition the Definite Guide for Photographers", Ammonite Press, 2014.