THE PROCESS REALIZATION OF A SERIES VECTOR 2D ANIMATION

FACULTAT DE BELLES ARTS DE SANT CARLES

UNIVERSIDAD POLITÉCNICA DE VALENCIA · FACULTAD DE BELLAS ARTES . DEPT DIBUJO

AUTHOR: SERGIO RODRÍGUEZ VALDUNCIEL DIRECTOR DR. MIGUEL VIDAL ORTEGA

UNIVERSIDAD POLITECNICA DE VALENCIA

INTRODUCTION

This research has its origin in the experience lived in the evolution of the series of 2D animation for television, in its change of a traditional method to the method of use of the technology. We must keep in mind that cartoons are an entertainment, so they belong to an industrial sector that lives on animated content to entertain an audience, and the more audience, the more revenue from selling advertising space.

Therefore it is spoken of a creative-economic process, creative for what it shows and economic for what it generates. The advent of the digital age has proved to be a springboard when it comes to making series, there is a reduction in costs, a shortage of production time and resources. This process involves computer programs that make animators able to develop their work more easily without losing creativity, so much so that the use of new technologies allows to open the range of graphic styles, looking for each product to be original.

The traditional 2D production method is studied in books, articles, manuals, specialization courses or references on the internet. But the process adapted to the new digital tools, are scarce or are treated in just 5 pages, providing little useful information for the person who wants to delve into the new resource.

As a beginning of documentation is the search for specific production books and traditional and digital animation processes. Complementing with articles and interviews in professional animation magazines. And resources of portals specialized in animation on the Internet, where professionals exchange views on how to better develop production.

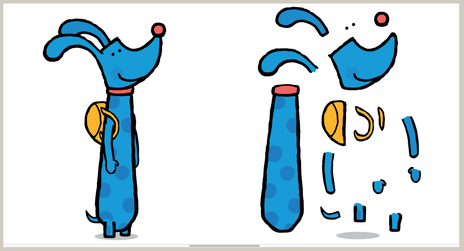
Therefore, this is a research work, which explores the production of a series of 2D animation for television, with the novelty and great contribution, which is made in a digital environment. This work shows the general process, with all the necessary steps to produce a series of 2D animation, making use of technological resources, to carry out the series, optimizing all resources, both economic, personnel and materials.

The main hypothesis of this study, is the need to show the production of a series of 2D animation at present. Show an overview of the production process of a television project. The integration of technical advances with the foundations of traditional 2D animation, which is always evolving.

The series that have been running for the last 10 years are marked by the technological advance that triggers interest in the producer to streamline processes, reduce production, shorten production time and make use of all technical advances to create unique and original series .

To develop our research, we try the following objectives.

1. To deepen on the data referring to the subject in bibliography, reports and articles.
2. Analyze the historical evolution of the 2D animation technique and its technical advances over the years.
3. Emphasize the basic process of traditional 2D animation.
4. Show the traditional 2D animation process applied to the digital age and its advantages.
5. Know the workflow.
6. Analyze the benefits of technology in animated production.
7. Study and analyze the producer's role throughout the production process.
8. Inquire the artistic and technical personnel involved throughout the production.
9. Analyze comparatively two television series with the difference of traditional and digital technique.
10. Study the possibilities of drawing immersed in the digital age.



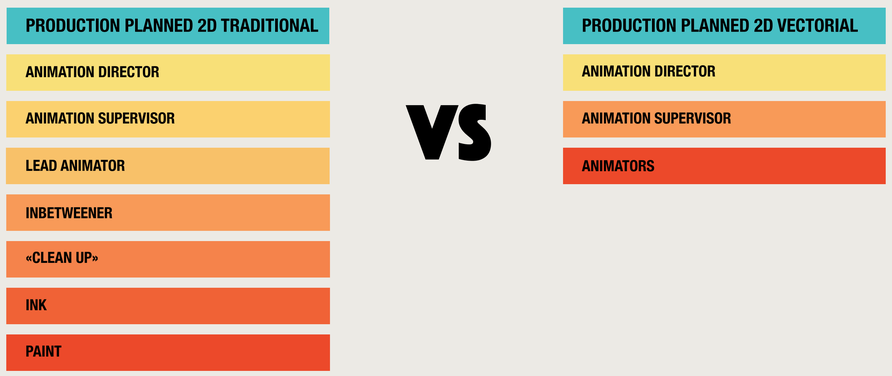
METHODS

To carry out this research work, we start from the historical analysis of the immersion of new technologies in the process of animation. As of the most traditional techniques have always gone in search of cutting time and work, adapting to the advances of the digital age. The processes of production have been thoroughly investigated, from a global point of view, without going into the development of how each stage should be carried out. Show the best information from a producer's point of view. Both traditional and 2D digital production series have been analyzed, showing and providing sufficient data for the development of this research.

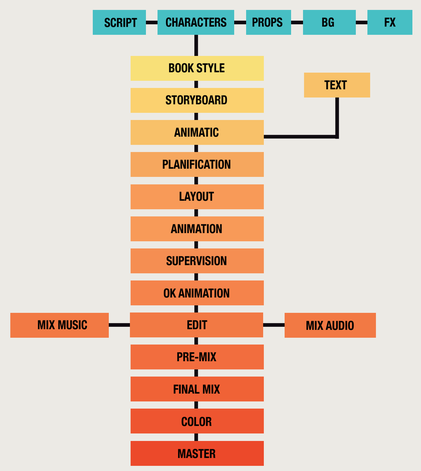
My experience as a professional 2D digital animation, has provided the necessary basis as a starting point for this work. Our research concludes the professional contacts in different phases of the production process that provide useful experience in this type of inquiry, serving as a reference to other professionals or future producers.

Structure.
In order to guide the research, a structure is shown in three sections:
- Background and analysis.
- Production process of a series.
- Section of comparative analysis and conclusion.

• Background and analysis: studies the evolution of 2D animation throughout history with the technical advances that have been able to improve the process, easing time and money. Another antecedent is in the evolution of animated production as a series of entertainment for almost a century. The importance of limited animation in the process of making series for television, in order to contribute content at low cost and short production times. Analysis of the general process of the 2D process.
• Production process of the series: focuses on the role of producer, from the beginning of the concept of the series to its final delivery of each episode. The function of the entire workflow and its linear evolutionary relationship. Each department has a production control that allows each stage of the series to advance. Establish the guidelines that guide the work of each department and each professional. Establish the relation of the design in the digital scope and how to develop it. Print a character of the series, optimizing resources, but without losing visual independence. Make use of all the material created in the series and manage the entire volume of work. Complete the series completely.
• Comparative analysis: studying two television series with 42 years apart, pointing out the artistic and productive bases of the first, distinguishing patterns and valuable strategies for the current series without losing quality. Establish definitive conclusions about the entire research process.



Comparative graphic of the artistic team between a traditional 2D project and another 2D vector.



Graphic of the traditional 2D animation process for series.

RESULTS

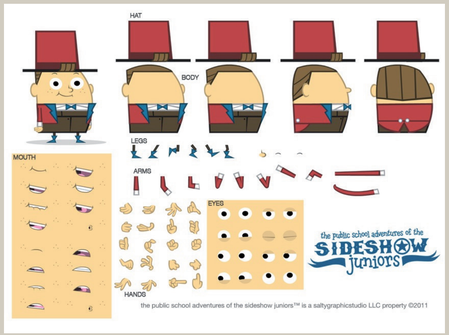
The production process of the series follows the traditional Hanna-Barbera heiress guidelines. Certain stages and animated solutions have been improved.

• The character design is broken down into layers or levels of each part of the body. Any character in the series is seen as a united set but has parts to animate.

• Re-use of body parts, only drawn once, hence the importance of pre-production, to perform all the material you require in character. The characters function as puppets. The animator is dedicated to the animation of expressiveness without drawing.
• Careful planning and attention to detail, marked from the development of each character and must be reflected in the visual guide. The characters in their visual development has been raised as the character will move, its parts, its limbs.

• Simplified, cyclical and straight tranche funds. With loose elements that facilitate the reuse or change of color of the scene.

• Characters with big heads and eyes, have the function of emphasizing interpretation.
• Simplification of movement cycles, where the body is in a rigid pose and only the legs are animated in traditional 2D animation. Any cycle or animation that can be reused, are performed with few poses, getting the sensation of movement.
• The views of the characters are limited, the main use is ¾, with no interest in giving a sense of three-dimensionality. The technique of the 3/4 is still used, but certain characters have actions of faces more frontal, by the game of their designs.
• Vocalization of a limited phonemes design, without intermediate drawings, based on the maximum of 12 poses. The vocalization in the series depends on each character, is varied.
• The use of "stretch and crush" can be a good expressive resource, and sometimes helps the expressiveness of the animation.
• The design of pants or legs of a single color, to realize less drawings of the cycle to walk. In some of the secondary characters this method is used.
• Sound effects must be present, emphasize actions and complement the animation. The quick actions of the scenes are accompanied by effects that emphasize the plane.
• Character design becomes symmetrical and easy to reuse.
• Camera planning is no longer so limited, there is the use of multi-plane cameras giving a three-dimensional feel, and of the classic medium plane, American and close-up, we must add the use of chopping and contrapicados.
• "Animations". Three poses for a character to disappear. Anticipation, start and exit is always present with the characters of fast movements.
• The importance of the voices of the characters is still valid, and when there is such a number of beings, the number of records is very high.
• Camera movements to suggest movement to help expressiveness, is in the approach of animática.
• The visual entity marked by the limited color palette is always necessary, and gives a unique character to the series.
• Simple animation as a way of life for a character, such as blinking or a simple gesture, in any scene is reflected.
• The limited animation shows the use of a unique style and very marked, showing an originality in their designs and backgrounds.



Character design with separate parts

CONCLUSIONS

Technological development has been present throughout the history of animation, the current use of digital tools, allows professionals to have a better overall concept of animated production. That greater concept is reflected in a greater knowledge of the work and therefore it is an advantage in the realization of a series of this type. The production method of traditional animation has benefited from the technical advances provoked by the market:

• The advance of the technology has caused a greater demand of animation.
• The creation of new thematic channels of animation in the television and internet.
• Creation of new studies, with new series proposals.
• 2D animation is set in the broadcast channels.
• Development of 2D software for vector drawing and animation.
• Search for new aesthetics in animation.

The new technologies in animation have allowed a rapid adaptation of traditional 2D animation to 2D digital animation, which leads us to certain conclusions, which definitely show an advance in the sector and show a new way in the development of animated series for TV.

• Technologies show a benefit for producers, with lower budgets, better quality products. Animators optimize resources with new tools. Therefore, shorter processes, lower budgets and higher quality of animation.
• 2D software requires a multifaceted artist to be part of the entire creative process of the work, being fully involved in the workflow.
• It requires a detailed planning of the production in order to optimize resources and means.
• The possibility of creating promotional material of the own production, in an alternative way, directed to the distribution and sale of the final product.
• The bases of the traditional 2D animation are transferred to the digital 2D in an evolutionary way of the technique, as already happened from the passage of the paper to the acetate.
• The drawing continues to demonstrate its importance, especially in pre-production, where it marks the design of the series. There is no talk of digital drawing, because under any circumstance it is still drawing.
• Strategies and resources of the character design are established, in order to make them easier to animate. Material is created with the possibility of reuse.
• Good planning allows you to reuse resources, achieving greater performance.
• The initial concept of the series comes from the artist's imagination, without the immediate intervention of digital media.
• Finally it is about animating, creating cartoons, and technology allows it.

In this research we have "illustrated" the methodology of how to produce a series of 2D animation for television, in the best possible way, giving the necessary importance to the optimization of resources, taking full advantage of all the elements that surround an animated production . We are talking about a laborious process of equipment, resources and technological means. Therefore we urge you to try to speak in a more global and informative way as a technique of "2D digital or paperless animation", making clear the use of computer technology and the absence of paper, and eliminating any reference To a particular software.

Bibliography

AMIDI, Amid (2006). Cartoon modern : style and design in fifties animation. San Francisco. Chronicle Books.
BENDAZZI, Giannalberto (2002). Cartoons, 110 años de cine de animación. Madrid. Ocho y Medio.
CHONG, Andrew (2010). Animación digital. Barcelona. Naturart.
CORSARO, Sandro, J. PARROTT, Clifford (2004). Hollywood 2D, digital animation. Course Technology PTR.
FABER, Liz (2004). Animación ilimitada : cortometrajes innovadores desde 1940. Madrid. Ocho y medio.
FURNISS, Maureen (2008). The Animation Bible: A Guide to Everything - from Flipbooks to Flash. Londres. Laurence King.
LAYBOURNE, Kit (1998). The animation Book. Nueva York. Three Rivers Press.
LEVY, David (2005). Animation(2007). Gardner's Guide to Writing and Producing Animation. Washington, DC. Garth Gardner Company.
SELBY, Andrew (2009). Animation in Process. Londres. Laurence King.
WHITE, Tony (2006). Animation from Pencils to Pixels: Classical Techniques for the Digital Animator. Oxford. Focal Press.
WRIGHT, Jean Ann (2005). Animation Writing and Development: From Script Development to pitch. Oxford. Focal Press.