

## A CASE STUDY OF DIFFERENCE BETWEEN SAND ANIMATION AND MICRO FILM

Jun WU<sup>\*ab</sup>, Chiang Chang, TZU<sup>b</sup>, Gao, YANG<sup>b</sup>, Rungtai, LIN<sup>b</sup>

<sup>a</sup> Department of Animation, School of Journalism & Communication, Anhui Normal University, P.R. C., [junwu2006@hotmail.com](mailto:junwu2006@hotmail.com)

<sup>b</sup> Graduate School of Creative Industry Design, National Taiwan University of Arts, Taiwan., [chang.tc0214@msa.hinet.net](mailto:chang.tc0214@msa.hinet.net), [lukegao1991@gmail.com](mailto:lukegao1991@gmail.com), [rtilin@mail.ntua.edu.tw](mailto:rtilin@mail.ntua.edu.tw)

### ABSTRACT

As digital media is developing increasingly, image communication has become rapid and convenient gradually. However, there are so many different image forms for artists to create a sense of beauty through their works, so how to make the audience feel the same way in the audio visual experience is actually a complex issue and worthy of discussion. In general, art creators and appreciators are separate from each other and have little intersection, this is especially true in the independent creation process. Although pure self-reproduction creation can maximize the personal aesthetic of an artist, such work may lack of experience in absorbing the aesthetic cognition of audience somehow. Then as a result, the final work gets into a dilemma of “too high-minded to be popular” and the communication effect is thereby reduced greatly. Therefore, this research attempts to discuss the impact of appreciators’ aesthetic experience and preference cognition, and explore the cognition on image composition elements among art creators and appreciators through rational quantitative research. As one of the film animation series study, this research selects the most popular micro films and sand animation as the objects with the purpose of exploring the cognition on different art image carrier and have insight into the core factors in attracting appreciators through aesthetic experience perception of different appreciators. In this way, the impact of different factors on the entirety can be evaluated. The research results can be used to provide reference for video art creators and appreciators.

**Keywords:** sand animation, micro film, Emotional Effect.

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\* Corresponding author.

## 1. INTRODUCTION

In recent years, cultural consumption has become a new trend in consumer market. Commodities are not a reasonable or material requirement for consumers but the spiritual satisfaction (Cavs 2000). Culture is preserved and transmitted through symbols. When animators devote themselves to the promotion of social transformation, they promote new ideas and behaviors (Barnes 2007). The significance of cultural creativity lays in the extraction of cultural elements, which gives new aesthetic meaning through metaphor, metonymy and hypocatstasis (Lin 2011).

Sand animation and micro film are the media of film and television, which is made up of images, sounds, movements and other elements to form a vivid field of audio-visual perception. Currently, it has become one of the most receptive forms. Both of them are guided by perceptual design and conduct conception in a free and creative way. Dramatic plot narration, vivid and diverse character reproduction and wonderful changing scenes bring people a lot of happiness and have touched them. The presentation of work image's esthetics are not separated from the creator's perceptual cognition and rational performance. It is not separated from the creator's special individuality, subjective perceptual consciousness and interpretation for social environment. It also reflects the cognition of different audiences on similarities and differences.

This paper focuses on comparing the advantages and disadvantages of sand animation and film, television and micro film in the public communication, explores the perceptual recognition and discusses how the art of film and television helps spread the concepts. It mainly includes the following aspects:

- (a) Analyze the strengths and weaknesses of Sand Animation and Micro Film and its differences;
- (b) Explain the creation concept of *Statue of Blood* (representing Sand Animation) and explore its characteristics (attributes);
- (c) Explain the creation concept of Describe the creative concept of *Manifesto for Outsider Art* (representing Micro Film) and explore its characteristics (attributes);
- (d) Compare two different types of individual cases, their different attributes (characteristics) and analyze the similarities and differences of these attributes and individual cases.

## 2. RESEARCH FRAMEWORK

### 2.1 Definitions of Micro Film and Sand Animation

“Microfilm” is a derivative of the commercial system that has come forth recently. A microfilm is a narrative short film about 60 minutes in length with three micro features, which are micro length (30s-60mins), micro production cycle (1-7 days or several weeks), and micro investment scale (no more than 10,000 RMB/film) (Zhu 2012; Hu,&Chen.2012; Li 2014). “Sand Animation” refers to animations made by using sand (or small particles, such as flour, salt, etc.) and single frame filming and continuous shooting, which excludes sand painting and sand painting performance images. It is characterized by its unique material, the way of single frame filming, the rich and profound theme connotation, and innovative visual style, so it can show the ontology, handmade, deformation, uniqueness of the aesthetic characteristics (Shih 2010;Wu 2017).

## **2.2 Market Values of Film Animation**

In recent years, micro film gradually spread all over the major video websites, which involves product advertising, MV, corporate videos, city videos etc., common in major public spaces’ LED screen (e.g. airport stations), mobile vehicle systems (e.g. bus, subway, taxi), video system in community building, network platforms (e.g. YOUTUBE), and new media platform (e.g. WeChat). It has spread everywhere at an alarming speed, and are very popular (Wu 2017).

Many places take cultural creativity as an important development industry. In 2008, Taiwan launched “Challenge 2008: National Development Key Program”, which listed the cultural creativity industry as the key program of the national development (Qiu 2011). With the emerging of cultural creativity industries, creative sensory goods designed with cultural connotation can arouse consumer awareness and impressions (Yen,&Lin.2012). Lin (2010) believes that the integration of culture and aesthetics economy can promote the new industries of aesthetic design, but also transform“art” into “business” (Yen,&Lin.2013). In fact, “beauty” is a necessity in today’s life, and art aesthetic style is no longer a luxury, “aesthetic economy” specifically serves the consumer’s aesthetic experience. Cultural creative commodity is not a physiological or material need for consumers, but a spiritual satisfaction (Caves 2000; Liao et al.2009). Cultural consumption has become a new trend in the consumer market.

## **3. RESEARCH METHODS**

### **3.1 Research framework**

The completeness of animation films is inseparable from audience’s cognition. The cognitive structure of films (as shown in Table 1) organized by Lin,Qian,Wu,&Fang (2017) is shown in Table 1. Film makers organize visual effect, camera language, sound creation and others, while audience watch, understand and are touched by the cognitive process through films, thus films attract audience’s attention and lead them to have correct cognition and make them deeply touched. It can be seen that animation films impose a direct impact on audience’s cognition on technology, meaning and effect. This research mainly focuses on characteristics and experience of animation films and truly expressing audience’s voice by the cognition of audience with different sexes, ages, professions, education backgrounds and majors.



Design Institute of National Taiwan University of Arts aiming to learn about audience's cognition for animation films, find out differences between audience's cognition and feelings for films and improve the follow-up researches in the future. Information you provide is valuable only for the purpose of this research and will not be disclosed. Please fill it out with ease.

b. The questionnaire includes basic information and evaluation on the animation film *Outsider Artists* and the sand film *Alike*. Basic information includes sex, age, profession, education background and major, and the evaluation on two films includes 13 questions respectively. Images of the two films are presented first for distinction, and explanations on how to fill out the questionnaire are provided. The cognition is shown through the hundred-mark system (1-disagree; 100-agree). The mark of questions 1-9 and 11-13 is 100, while question 10 is a multiple choice question.

c. Invite 30 audiences from different majors to the laboratory each time (4 times and 109 audiences in total), explain purposes of the questionnaire and explain how to fill it out.

d. Play *Outsider Artists* and *Alike* for the audience.

e. The questionnaire is filled out through the Internet website:

<https://www.wjx.top/jq/15909747.aspx>

Audience can also scan the QR code to fill out the questionnaire.

### 3.3 Participants

Participants in the research are those who watch *Outsider Artists* and *Alike*, including teachers and students of the university and social elites. All the participants have been informed that the questionnaire should be completed after watching the movies. After full comprehension, everyone agrees to participate in the questionnaire. There are 109 participants and 101 valid questionnaires in total. In terms of sex, 43 males (42.6%), 58 females (57.4%), in terms of age, 76 participants (75.2%) aging from 20 to 29, 14 (14.9%) aging below 19, 8 (7.9%) aging from 30 to 39, 2 (2.0%) aging from 40-49, 1 aging above 50; in terms of education, 68 participants (67.3%) Bachelor degree, 29(28.7%) Master graduate and above, 4 (4.0%) Diploma and below. All the participants are cooperative, so the research went well.

## 4. THE RESULTS AND DISCUSSIONS

### 4.1 Analysis of validity and reliability

According to the analysis of validity, the KMO coefficient is .86 with a high value; the Sig value is .000 with a strong effect; the characteristic value is 5.79 which would explain presuppose applications; the amount of variation is 64.32%; the factor load capacity of each question varies from .706 to .822; the intercommunity of each question varies from .603 to .692.

The analysis of reliability is to discuss the internal consistency of the questionnaire on each dimension and the depletion of each Cronbach $\alpha$  coefficient after a single question is deleted as the reference standard of topic choosing and whether the reliability of the questionnaire is good or not. Seen from the analysis, the Cronbach $\alpha$  coefficient is .931; the total correlation of each dimension of characteristics and correction of the content varies from .713 to .778; “the  $\alpha$  coefficient after deletion” varies from .920 to .924. It can be concluded that the internal consistency of topic chosen is higher, and the settings of the topic are reasonable.

#### 4.2 Analysis of gender differences in responses to characteristics of films

As the sex of participants is an independent variable, 3 overall evaluations on animation films are examined according to the variable, each dimension and independent sample t to examine whether there is a significant difference of sex on characteristics of films. The results are shown in Table 2. In “cultural characteristic depth”, “high-quality creative strength”, “enthusiasm for films”, the cognition of women and men is not significantly related. The “cultural characteristic depth” of sand film is averagely 97.09% for men and 91.47% for women. The result of t test shows that 97.09% for men is higher than 91.47% for women ( $t=1.63$ ,  $p<.05$ ), which is of significant correlation; on high-quality creative strength, 91.26% for women is higher than 85.28% for men ( $t=2.38$ ,  $p<.01$ ), which is of significant correlation.

Table 2. T-tests for Gender Differences in Responses to Characteristics of Films

<i>Subjects</i>	<i>Q</i>	<i>Gender</i>	<i>N</i>	<i>M</i>	<i>sd</i>	<i>t value</i>	<i>sig</i>
Microfilm	Depth of cultural traits	Male	43	79.65	16.79	1.45	Male<Female
		Female	58	84.02	13.41		
	Intensity of high-quality creation	Male	43	78.07	17.46	1.11	Male<Female
		Female	58	81.41	15.46		
	Enthusiasm for this film	Male	43	80.02	16.80	1.74	Male<Female
		Female	58	85.36	14.04		
Sand Animation	Depth of cultural traits	Male	43	97.09	14.95	1.63*	Male>Female
		Female	58	91.47	9.98		
	Intensity of high-quality creation	Male	43	85.28	14.80	2.38**	Male<Female
		Female	58	91.26	8.35		
	Enthusiasm for this film	Male	43	90.02	11.80	.69	Male<Female
		Female	58	91.50	9.85		

\*p<.05.\*\*p<.01

### 4.3 Analysis of differences within independent variables of vocation and educational background

The results of variable differences surveys on significant differences on age, education background and characteristic are shown in Table 3. Different ages do not show significance in cognition for micro films and therefore no difference. Different majors show significance of “high-quality creative strength” and “enthusiasm for films” for sand animations. Age shows no difference.

Tab3. Analysis of Variance (ANOVA) for Differences in Response to Characteristics of Films within Two Items of Independent Variables

<i>Subjects</i>	<i>Q</i>	<i>Source of variation</i>	<i>SS</i>	<i>Df</i>	<i>MS</i>	<i>F value</i>	
<b>Education</b>	Sand Animation	Intensity of high-quality creation	Between Groups	704.58	1	704.58	5.25*
			Within Groups	13348.10	99	134.83	
		Total	14052.67	100			
		Enthusiasm for this film	Between Groups	679.46	1	679.46	6.26*
	Within Groups			10739.87	99	108.48	
	Total		11419.33	100			

\*p<.05.\*\*p<.01

### 4.4 The results of the subjects evaluated by the census

The dependent sample t survey is conducted by results of cognition for micro films and sand animations, and the dependent sample t survey is conducted by overall evaluation dimension of animation films and internal key factor of animation films in Table 4. The two surveys are compared in one table. In the column of overall evaluation, it shows the comparison of participants’ cognition for two different animation films. For example, in question A1, the average value of micro film is 80.11% and that of sand animation is 88.89%. The results show that 88.89% of sand animation is higher than 80.11% of micro film (t=5.03, p<.001). In the column of key factors of performance, it shows the comparison and evaluation results of two different films. As for question A1-1, 59% chooses it in the micro film group and 58% in the sand animation, which means that it is not significant. 9 dimensions in the first column show significant correlation. A1, A2, A3, B4, B5 and C7 (p<.001) show strong significance; in the

second column, except A1-1, B4-2 and C7-2, all shows significance, and A1-3 and B4-3 shows strong significance ( $p < .001$ ).

Table4. Summary of rating data and comparison with two works

<i>Subjects</i>	<i>N</i>	<i>Total image</i>				<i>Key factors of performance</i>			
		<i>Q</i>	<i>Mean</i>	<i>sd</i>	<i>t value</i>	<i>Q</i>	<i>Mean</i>	<i>sd</i>	<i>t value</i>
<b>Microfilm</b>	101	A1	80.11	17.56	5.03***	A1-1	.59	.49	.16
<b>Sand Animation</b>	101		88.89	11.62			.58	.50	
<b>Microfilm</b>	101	A2	80.50	17.79	4.14***	A1-2	.24	.43	2.78**
<b>Sand Animation</b>	101		87.57	13.26			.39	.49	
<b>Microfilm</b>	101	A3	79.64	18.44	4.05***	A1-3	.41	.49	4.95***
<b>Sand Animation</b>	101		86.26	16.97			.66	.48	
<b>Microfilm</b>	101	B4	80.34	17.57	4.35***	B4-1	.54	.50	2.53*
<b>Sand Animation</b>	101		86.72	16.23			.69	.46	
<b>Microfilm</b>	101	B5	82.42	16.04	3.61***	B4-2	.50	.50	.46
<b>Sand Animation</b>	101		87.52	11.76			.52	.50	
<b>Microfilm</b>	101	B6	82.08	16.17	3.18**	B4-3	.39	.49	3.69***
<b>Sand Animation</b>	101		86.78	13.00			.60	.49	
<b>Microfilm</b>	101	C7	80.19	15.86	4.58***	C7-1	.46	.50	2.93**
<b>Sand Animation</b>	101		87.07	12.98			.61	.49	
<b>Microfilm</b>	101	C8	78.59	19.32	2.74**	C7-2	.58	.50	.84
<b>Sand Animation</b>	101		83.84	20.58			.63	.48	
<b>Microfilm</b>	101	C9	80.92	18.96	2.66**	C7-3	.49	.50	2.40*
<b>Sand Animation</b>	101		85.89	15.82			.63	.48	

\* $p < .05$ . \*\* $p < .01$ , \*\*\* $p < .001$

## 5. CONCLUSION

This research is modelled after framework of animation films and discusses people's cognition for micro films and sand films by t test and analysis on variables and differences on

target audience's cognition resulting from forms and internal component factors of animation films. The results show that:

1. There is no difference on cognition for micro films when it comes to different sexes; there is significant difference on "cultural characteristic depth" and "high-quality creative strength" of sand films.
2. There is no difference on overall cognition for micro films and sand films when it comes to age.
3. There is no difference on overall cognition for micro films when it comes to education, but there is difference for sand films (when it comes to different majors, there is significant difference on "high-quality creative strength" and "enthusiasm for films").
4. It shows significance of target audience's overall evaluation on micro films and sand films and cognition for key factors of performance. 9 dimensions of overall evaluation show significance. Except "Appropriately Captured", "Desire Exploring" and "Affluence in Life", the others show significance.

It can be known from the comparison that verisimilitude, modelling and movability of micro films are easy to be understood as they are most often created after videos, while verisimilitude of sand films is weaker and modelling and uniqueness tend to be more characteristic as they are all created by artists. As a result, there are differences on target audience's cognition. Seen from overall evaluation and comparison, target audience prefers sand animations.

Suggestion: This research is one of series research on creation and cognition of animation films. Although there are differences on cognition for micro films and sand animations, the impact specific dimensions (overall evaluations and key factors) have on animation films is unknown. These research results will provide valuable references for artists of animation films.

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