Decomposition and Reorganization

Study on the Elimination of Digital Gulf and Artistic Spirit Barrier

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Abstract—**Technical features of digital modeling contain huge modeling potential. With advanced functions, it lacks corresponding cultural implication, causing digital gulf and artistic spirit barrier that reflect cultural backwardness. Traditional culture brings in emerging technologies and internalizes, while inevitably technology changes culture. Digital gulf will be bridged through application, decomposition and reorganization of traditional artistic spirit, not to adapt to the original culture but to promote the production and development of new culture.**

Keywords—CG; digital gulf; decomposition; reorganization

I. INTRODUCTION

Digital means of visual modeling is often called CG technology, which transforms from auxiliary modeling means to independent artistic modeling. Inevitably, a gulf forms between it and traditional art because of its advanced functions. How to face the phenomenon needs exploration.

II. ANALYZE CG

A. The Position of CG

CG derives from digital technology and has amazing functions. People find its huge modeling potential but never treat it as a culture.

The formation of human culture goes through the process from function to significance. For example, costumes have function of protection against cold initially and transforms into status symbol and then form costume culture. When CG technology appears, more attentions are paid to its functions instead of its unique significance. CG technology is widely applied to graphic design and production because of its convenient functions. Universities also provide related courses. At first, the courses are called "computer graphic and image aided design", indicating status of this technology, subordinate to traditional art. It is widely accepted that "CG is just a tool".

However, just as the universal law of social development, the revolution of tools and technologies will trigger significant changes of social structure. The extensive application of CG in modeling art will change the art spirit system.

With soaring development, CG technology has been out of the range covered by the original artistic concepts. High-tech means is widely used by artists. For example, in Venice Biennale in recent years, the meanings of tremendous interactive media devices do not belong to any previous cultural patterns.

Marxists think aesthetic factors contained in means of production are foundation and source of beauty. "Tools run through cultural creation and development of human." [1] In the future cultural development, except for functions, CG will have significance and will be increasingly important.

B. The Characteristics of CG Technology

CG technology has the following features ⑴ Non-material: Pictures, sounds and dynamic images are digital and virtual. Bit-based digit has rules of its own. Just like the amazing graphics in FRACTAL art, it is a world different from the present one. ⑵ Bit-based: Transmission, duplication and interaction are extremely convenient. ⑶ Dissimilation operation: Physical forms "on the screen and related to the virtual world" are stored and carried conveniently and transmitted rapidly. ⑷ With soaring development, the technology exceeds the scope of existing culture.

Dissimilation operation is regarded as the expression of digital gulf, but the problem is far from simple.

The introduction of CG technology to artistic modeling makes traditional graphic design convenient. For example, the extensive use of software like PHOTOSHOP and CORDRAW brings convenience for graphic designers. Meanwhile, it breaks away from the traditional modeling methods, mouse, keyboard, expression and programming, making artists panicky. Digital operation needs digital way of thinking, breaking the unification between forms and contents brought by hand making and losing pureness of artistic taste. Therefore, some artists reject CG.

To solve this problem, developers of CG technology make efforts to make the digitized production close to traditional one, such as the imitation of natural strokes of PAINTER software developed by COREL Company, and hardware used in freehand sketching developed by WACOM Company. PAINTER carving tool in MAYA, digital engraving instrument and motion capture instrument developed by ALIAS Company narrow the gap between CG and traditional art on technical level and have achieved significant results.

With the development of nonlinear mathematics, scientists and artists find more intercommunity and try to narrow the gap conceptually. Artists sensitively find new expression forms and meanings. For example, in demo [demonstration] &Intro [introduction] and exploration of fractal art, artists and mathematicians try to integrate science and art and explain pure CG artistic taste through reconstruction of time latitude and space latitude and have achieved amazing results. Although these efforts are little-known, attentions must be paid to it. It may produce the early form of future CG art.

Nevertheless, the non-material CG technology still makes subjects of traditional art spirit panicky, because the non-material characteristic bases on bit orientation easy to duplicate with characteristics of transmission and interaction. It is greatly changing ways of information transmission, which will lead to earth-shaking changes of the society. In this era, artists face the virtual world created by human but totally alien, the digital world. The digit rules are found and used by human but follow their own laws. Virtual world resembles a spiritual world without materials but is completely different from the spiritual world of human. The question of who will change who will cause panic for subjects of traditional art spirit. The panic cannot be eliminated only by technological advance. Therefore, CG technology have potential characteristic of decomposing traditional artistic thoughts.

The development of CG technology is extremely rapid, which is completely different from any modeling technology in the past. It almost totally exceeds the speed that human culture adapts to new things. It also deepens digital gulf and causes more obvious predicament for CG.

C. The Predicament FACEd by CG: Have Function but No Significance

CG technology faces the predicament of having function but no significance because of its rapid development speed far beyond the reach of human culture. The simulation of traditional art will make it obtain new ability of metaphor and substitution and then characteristics of culture.

When miraculous effects produced by filter of PHOTOSHOP and fantastic actions produced by expression of MAYA, how can we face it? Is it error in operation or opportunity of artistic inspiration? Regardless of the result, the phenomenon is taken into previous modes of artistic creation. Artists treat it as special texture effect. It is because functions of CG have no meaning orientation. When endowing it with the significance of visual culture, inevitably, we will bring it into the existing signifying and signified patterns. In most cases, CG has functions instead of significance. Simple simulation of traditional artistic forms makes it resemble prevalent culture, such as magic or acrobatics. In this way, barrier forms between it and artistic spirit.

After artists with traditional concept complete their works under the help of CG technology, will CG influence artistic styles and spirit of the works? If the influence exists, what's the problem?

McLuhan observes the technological development of human is the magnification and extension of functions. "We use new media and technology to magnify and extend." [2] The magnification is local, which will cause imbalanced proportion of the original social entity. The perceptual model and proportion will be readjusted to adapt to the change. Obviously, the unconscious adjustment is inevitable in the application of CG technology.

Technological transformation changes living habits, thinking and evaluation models. Similarly, CG technology changes modeling methods and traditional models of artistic thought. In this process, CG functions gradually obtain significance.

At present, CG technology has been widely used in various aspects to serve cultural life of the mass. With the rising of digital virtual ways of entertainment, traditional signifying and signified meaning imposed on CG function are misread or have ambiguity, which decompose traditional art.

Just like postmodernist art, new significance must be readable. It is inevitable to use the existing signifying and signified relation of traditional vocabulary. In order to produce significance, CG function must temporarily follow the traditional artistic model. Some advanced explorations also avoid meaningless functions through reorganization of traditional meaning, such as some artistic works integrating behaviors, devices and CG on Venice Biennale. CG uses numerous high-tech achievements, but its meaning can only be explained through traditional art such as behaviors and devices.

Besides, images designed by scientists or artists through fractal image software according to nonlinear mathematical principles have digital charm in forms and contents. Although we fail to explain its cultural implication, we are shocked by the beauty of mathematics presented by it. Technology does better in promoting the change of aesthetic direction than humanity. However, excessive humanistic significance will damage the development speed of similar things.

The ever-changing functions of CG lead to the absence of cultural implication. The production of corresponding meaning is backward. The trend that technology drives thoughts is more significant than any time before. Culture needs transmission which needs readable common meaning. The common meanings in the bit-based digital era have been ambiguous. Therefore, the relationship between new function and cultural implication is obvious.

III. ANALYZE ARTISTIC SPIRIT

For thousands of years, mainstream artistic styles are ever-changing, so is the spiritual connotation. What's the rule? According to the research on art history, it indicates a common law, the major changes of art are accompanied by changes of media. There is only one spiritual orientation, humanistic care.

McLuhan explains the relationship among technology, media and culture in the famous book of Understanding Media. Human culture has an important function of eliminating the maladjustment brought by technology. Existing cultures bring in new situations and internalize to stabilize people's perception system, but technological advance is breaking it continuously. Nowadays, digital media cause unprecedented overturn of existing culture. Traditional forms of linear

structure are impacted by post-modernization. Traditional culture cannot contain new technology and media to make phenomenon conform to meaning any more. The adaptation of culture to technology is always obviously backward. "In the history of human culture, no example shows: people consciously adjust personal and social factors to adapt to new extension; the only exception is the powerless efforts of artists." [3]

In McLuhan's opinion, artists are sensitive to observe changes of cognitive pattern and perceptual proportion of human society in advance and predict future culture. They have explored the situation that culture has conflict with technology changes. Afterwards, McLuhan constructs patterns or Noah's Ark to face the changes and explores the nature of art, "Art is the psychological, accurate and advancing knowledge to deal with the next technology" . [4] McLuhan describes the art in broad sense, but we can easily observe the humanistic care, the observation related to human, in order to solve problems between social psychology and objects. "Human brain perceives and explores the world with scientific, religious, practical and artistic forms." [5] From this perspective, essentially, art is a way that uses special models to explore human state. The original culture delays to adapt to new state or fails to adapt, so the real observation on the present situation is prophetic, which needs very sensitive mental state. Technology or media change perceptual models and proportion of human, so artists should be sensitive to it, in order to promote the appearance of new culture and adapt to the technological transformation. It may be the significance of artistic spirit.

IV. DECOMPOSITION AND REORGANIZATION— ELIMINATION OF DIGITAL GULF AND ARTISTIC SPIRIT BARRIER

To sum up, artistic spirit is humanistic care and observation related to human. People can find corresponding meaning in ever-changing environment and obtain the unity of moral knowledge and practice, in order to relieve pressure brought by changes.

Humanistic environment changes tremendously. Influenced by science and technology with rapid development, original culture obviously lags behind changes brought by technology. Artistic forms produced by original culture have failed to completely cover all meanings of CG.

Representing digital civilization, CG has endless possibilities to express future culture. The digital gulf called by us is its value. It indicates images created by CG contain contents that cannot be covered by traditional cultural system. It provides opportunities for artists to carry forward artistic spirit--establish artistic forms and new digital culture, and new meaning relationship to face the ever-changing information era, representing humanistic care that keeps abreast of the times.

In reality, barrier doesn't exist between digital gulf and artistic spirit but in the maladjustment of new changes. Facing changes and freeing our mind is the only way to cross the chasm and eliminate the barrier.

Although technology occupies superior position than culture, it cannot immediately destroy traditional culture. On the contrary, technology completes the transformation from function to meaning with the help of traditional culture. ROGER FIDLER proposes in his book of Change of Media Forms, "New media will not appear voluntarily and in isolation. They develop from changes of old media forms. When new forms appear, old forms will adapt and evolve instead of dying". [6]

The integration of digital and traditional cultural forms must base on decomposition and reorganization. Post-modernity embodies the trend of integration and the inevitable result brought by digital information transmission way. The integration is mutually beneficial and the method to eliminate the gulf.

In the maladjustment of digital technology, traditional artistic models may generate new artistic styles. For example, at early stage of renaissance in Europe, famous painter Botticelli uses numerous curves to integrate the angularity of three-dimensional modeling techniques to form the style of his own. Pioneers of digitalization guide the audiences to find new meanings of digitalization under the help of traditional forms, such as works on Venice Biennale that refer to traditional forms of behaviors and devices.

The integration of digital modeling is not to adapt to traditional culture but to create new digital culture. Problems brought by the integration include how to keep the pureness of language and how to avoid post-modernity from being prevalent. Gulf and barrier exist but artists still have a long way to explore how to eliminate it.

V. CONCLUSION

Language and culture are closely related, a language may reflect the rich and colorful cultural forms of the nation. Though we have realized that the cultural differences are existing and objective, yet any of a nation's culture is vast and all-inclusive, therefore, during the college English teaching, teachers should integrate the culture to the teaching in addition to necessary language knowledge, helping students cultivate interests in learning the language, making them capable of English listening, speaking, reading, writing, translation and becoming compound talents meeting the needs of the time.

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