Digital-Primitive Art Research: Animation Permeates Centuries-old Rawhides

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Abstract

This paper provides a brief introduction and an inspection of my "Digital-Primitive Art" series of artwork and research in 2004.

The visual creations of "Digital-Primitive Art" consist of 3D animation/modeling images that are digitalized on centuries-old rawhides, parchments and natural wood, as well as being projected onto both sides of rawhides through video projectors. It offers new dialogue among old and new technologies; early and modern American spiritualities, ephemeral and timeless art forms, and digital and primitive art significations.

Artistic perception and technical comprehension are twin brothers in the digital animation family. They mutually accelerate the expansion of computer animation. Maintaining equilibrium among electronic and primitive spirituality, digital technology and ethno-technology is a focus in this art exploration.

Keywords: **Digital Art, 3D Animation, Primitive Art,**

1. Introduction

1.1 Research Introduction

The conceptual, artistic and technical research involved in visually creating what I term "digital-primitive art" may be the *first* of such studies in its field. It was a multifaceted and reciprocal process. It involved making digital 3D images through primitive technology and materials, and making primitive rawhide-art through digital technology and methodology. My hope is that "digital-primitive art" can transcend the traditional and modern uses of art elements and can result in integrating digital and primitive values into one manifestation. These works will embody the expression of digital animation and early American symbolism. Forms from American spiritual imagery and earth astrology were digitized onto the rawhides' surface and present a new digital art form through animation principles, digital image perceptions, early American spirituality, and primitive art implications.

Not only are there extensive questions to be explored relating to the expressive possibilities within the realm of digital-primitive art, one must also develop a critical framework for a new medium of artistic expression. This medium would combine modern technology with centuries-old approaches to spirituality.

1.2. Structural Components

The series of this artwork is divided into four components. They are as follows: Digital Parchment Prints, Digital Parchment Projections, Digital Wood Prints, and Primitive Animation Devices. The first two components have been completed and the others are still under digital processing and creative construction.

Digital Parchment Prints

Unique 3D animation/modeling images are printed on a rawhide surface with a digital inkjet printer, and the rawhides are stretched by using aluminum clamps and cotton strings. The strings are fastened to a naturally textured cedar wood frame. Various parchment sizes and irregular shapes can be clamped with flexible strings at all angles. All frames are made with 4" x 4"cedar wood, measuring 60" in width and 72" in height.

Figure 1, Digital-Primitive King, 60" x 72", 2004

Figure 2, Digital-Primitive Queen, 60"x72", 2004

Digital Parchment Projections

3D animation is simultaneously projected on both sides of the parchments, which has a variety of animation images, timing, composition, coloring, effects and animation principles. Due to the semi-transparency and rough texture surface of the parchments, the effects are miraculous causing both sides to illuminate in motion. This projection portrays an illusion that the animation is permeating through the parchments. The audience may admire the work from any angle. The size of a Digital-Parchment-Projection is approximately 18ft x 5ft X 8ft, including the distance between the projectors & the rawhides.

Figure 3, Digital-Primitive Running

18'x 5'x 8', 2004

Digital Wood Prints

Distinctive 3D animation/modeling images are printed on various natural wood surfaces with a digital inkjet printer. The creation of 3d images is inspired by natural wood shapes, primitive, folk, and contemporary art. "Digital and Nature" are the main themes in this art exploration.

Primitive Animation Devices

Contemporary Thaumatrope, Phenakistoscope and Zoetrope have been created with wood, metal and glass. These devices consist of digital 3d/2d image sequences, using parchment and a wood screen. Audiences can actively participate to create the animation through such devices.

2. Background

"When we consider a new project, we really study it…not just the surface idea, but everything about it." **-------**Walt Disney.

Animation is a uniquely expressive art form: it provides the creator with control over both the appearance and the movement of characters and objects. This gives the artist tremendous freedom, which, when well used, can create works with remarkable impact. Digital 3D animation has been burgeoning steadily over the past decade, as seen in "Jurassic Park", which initialed digital technology with Dinosaur creation. "Toy Story", which was the first fully digitized animation movie, captured global attention. 3D industries and digital animation institutions have been springing up like mushrooms, making it possible for good and bad animation movies to have a chance to participate in the current market. But, the voice of exploring digital 3D animation as a pure art form is actually powerless and ineffective.

Figure 4, Digital-Primitive Dancing

18' x 5' x 8', 2004

Within the animation community, there is both historical and aesthetic tension between 2d/3d animation and fine art animation; animators, fine artists and technicians have impractical expectations. Several common animation matters such as Storyboard, Layout, Character Design, and Timing are established by animators, fine artists and educators. These matters are important in digital 2D/3D animation. In terms of digital 3D animation being applied as a pure art form, there are conflicts and disagreements among technique and art orientated animators and fine artists. The former believes that animation is the key to freedom for movies, films, videos and commercial TV shows, and, that it will be able to achieve everything with animation eventually through advanced technology. The most fine art animation produces simple movement. It lost the essence of animation and appears immobilized and incapable in terms of movie senses and elements. The latter considers that technique cannot substitute human emotion and artistic perception. Animation involves timing-based images and is based on an exaggeration that applies the artist's own personality and visualization. It is a form of freedom that connects culture, concepts, religions, sexualities and society issues.

According to those disputes, I simply divide them into industrial animators and perceptual/conceptual animators. In this contemporary world, realistic effects have an impact on the soul of the current concepts and technical nature in the field of animation. Each new technical step in achieving 3D animation natural impression will be supervised and energized by industrial animators. I describe this phenomenon as the "Pre-Picasso" period. Perceptual and conceptual works have a dramatic potential to be recognized by the public and artistic spectators in a new century. At this stage, recognition for the balance between industrial animation and perceptual animation is practically necessary.

Recently, most animation researchers are focusing on the development of new technology, animation movies, and the animation theory is mainly a comment on industrial and commercial work. There are a few serious issues that examine the process implications of digital 3D animation as a new art form for perceptual animators.

My art research objective is to build a bridge between perceptual and industrial animators and let both concepts and techniques be developed parallel to my artwork. In other words, I fully apply visual perception, cultural concepts, aesthetic awareness, and animation technology as well as classical animation principles.

3. Underlying Concepts

3.1 Artist's Preoccupation

One way in which I think about the relationship between primitive and modern technology can be symbolized as "Digital $<\infty$, that is, (Finite) and Primitive$= \infty$ (Infinity)"--the title of my solo exhibition. I would suggest that any modern technology be changed or replaced, however, the primitive systems of signification retain their impact. As the ideologies and technologies of society change, today's state-of-the-art technology will be tomorrow's primitive skills.

During this digital age, digital technologies, telecommunications, and the digital arts are transforming contemporary culture and daily life. We are living in concrete and digital jungles and are trained to be "technopagans." The research project will emphasize cultural analysis and criticism from a humanistic perspective, and seek to foster new pathways to innovation in digital culture across a wide spectrum of conventional, cultural, natural, disciplinary, and primitive practices. Keeping the equilibrium among electronic spirituality and primitive spirituality, digital technology and ethno-technology will be a focus of the work.

Figure 5, Horse and Sun, 70" x 65", 2004

3. 2 Art Form Discovery

State-of-the art technology has caused a shock wave on the traditional and contemporary art forms during the last two decades. The new digital art forms such as digital animation, computer art, web interactive art, multimedia installation, and digital imaging have emerged and have been recognized.

Museum Curator Christiane Paul described a distinction between artwork that applies digital technology as a tool to produce traditional art forms and artwork that adopts it as a medium to create new types of art, in her book "Digital Art." My "digital-Primitive Art" cannot easily belong to one of these significations, which mixed digital and primitive technology with ancient rawhide materials. The "Digital-Primitive Art" creating a totally new art form with timeless images using one of the most contemporary media, which are

then printed or projected onto one of the most ancient forms of support. It also opens a new artistic perspective on the past, present and future.

3.3 Multicultural Interaction

The creative strategy for this project is to explore a unique artistic viewpoint and to create artworks that will present early American people's culture and centuries-old spirituality through a highly distinctive digital environment using primitive materials.

In the first phase, I conducted studies on early American spirituality, primitive art, animal rawhides, digital animation, and digital-printing technology. After laying this groundwork, I developed a new art form that has facilitated the creation of a "digital-primitive art." Simultaneously, the conceptual thinking related to digital-primitive art has emerged.

Digital animation provides a way to make the visual journey very engaging and effective. Besides the rawhides, natural burls, unique plant materials and old wood textures are adopted as frame materials.

The digital 3D image creations along with the frame designs were largely inspired by early American and Chinese culture, as well as worldwide primitive and contemporary art.

Figure 6, Spiritual Stone, 60" x 72", 2004

4. Digital & Centuries -Old Technologies

In terms of the relation of new media and old media, Mr. Lev Manovich discusses the fact that new media relies on conventions set by old media in his book, "The Language of New Media."

Developing digital-parchment-printing technologies are an essential part of the research. As a pioneer researcher in this field, I faced some incredible technical challenges, which required considerable time and effort to solve since there was very little reference material available. Throughout the process, I have been able to provide suggestions to printer companies on the modification of printers to adjust to different parchment qualities, thickness, and hygroscopicity.

Regarding the digital skills in my artwork, *Softimage/XSI* is the primary software for this project. *PhotoShop & Illustrator* are used for digital image creation, and *PremierePro, SoundEdit 16* and *DPS Reality* are utilized for movie making, sound editing and composing. In terms of hardware, the *Dell Precision PCs*, and the *Power MAC/G5s* are used in an integrated fashion.

The centuries-old technologies for creating images on rawhides are a significant aspect of this exploration; we normally define these early approaches as "ethnotechnology" or "primitive technology". The use of trimmed and healed animal rawhides is an ancient process used by indigenous people around the world to produce soft, durable parchments. Numerous animal hides have been used, including calf and deer. The hides were cleaned and disrobed of fur or hair. Meticulous concentration is required for the scraping process for the purpose of detaching all unnecessary materials without stabbing or ripping the hides. Then they are stretched on a wood frame to be flattened with pumice on the surface. Finally, the back is sanded down to a perfect thickness for digital printing and digital projection.

Conclusion

"Digital-Primitive Art" art research is the first exploration in applying digital and primitive, old and new, early and modern, ephemeral and timeless conservatory art concepts, art forms and technologies to one entity. "By creating a novel synthesis of such diverse elements, Li Tan provides us with a new perspective on the past, the present and the future and opens up a range of new artistic possibilities." (Dr. Martin Rosenberg)

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