



~~THE TECHNOLOGY OF CG~~

Recently the fashionable topics is concerning about performing CG images on the data transfer media by means of HDTV. For 16*9 the display size of HDTV, which displays in high resolution, is 5 - 6 times larger than traditional TV, for the time of implement, it also correspondly spends more 5 - 6 times. My first CG works of HDTV's form is "flora". Its subject was to express the imagery plant in the universe that it was completed in the summer of 1989 and spent me a year to implement, but three years on technical preparing. For the sake of the HDTV's form, only one motion works can be completed in a year, that the efficiency is a problem. The solution is to take the works of 5 minutes condensed to one minute, increase 5 - 6 times in the processing time, or the better way is considering about changing a computer 5 - 6 times faster. The third way gives us a significant revelation that to change media can bring the probability of new expression for various works.

65x14

(P10)

Since I have worked in CG for many years, it creases a stage when completing a works each time. I hope it could earlier keep away from the bad customs, and at least could complete three works in a year by means of improving capability of computer. But currently I am afraid it never escape from the terrible dream for the producing form of HDTV, so I take myself to be a universal organism of information transfer.

65x6

(380)

For HDTV, especially for organism color and the formative principle all can utilize the new media to implement. Such as turtles, birds, or fish, their external color are dependent on the environment that also can be simulated by the artificial intelligence to implementing the change of color and texture in the time axis. The research of developing animal morphology from artificial intelligence allures me into the vital universe.

65x6

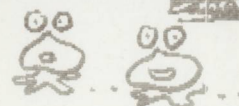
(380)

Sine then, I never decide its formation beforehand, but utilize some formative principle in order to make it face an ambiguous direction and develop itself formation. The kind of formative method in the development of time axis can underatand the direction of motion picture from the dynamic structure. I am convinced that I am suitful for the develop method of ambiguous theorem. Even I am unclear for the detail of formation, it also can get a unknown formation by only given a producing condition of formation only. I tried he method first time from 1975 - 1976, and took a universal growing phenomena of branches change into functional formula, what was so called "growth model".

65x10

(680)

(2340)



~~THE INDEPENDENCE OF ART~~

One of the ways to express oneself idea and implement on a solid is computer sculpture. So, at the beginning of implementing CG, I decided to overcome the handy painting and create new art. No losing color and texture, having the curved surface feeling of the sculpture, and using time to implement formation in motion pictures are all my persistent dream, that could only be completed by CG. Since 70's, I kept on struggling while few people worked at CG in those days, and some of them stopped halfway. And I didn't start to utilize HDTV until the later of 80's. In the HDTV pictures, fine scanner lines seems to hide some kind of texture that the feeling bewitch me.

65x10

(650)

As for the direction of works, in spite of the favor of fifty people among hundred, it need to forge ahead the rest fifty unacceptable goal. Because of even the total people favorite works, it might be unable to perceive the truth. So, for a poisonous works, its refusal response is the most important. Of course, there is no real works without all-out effort. Suppose simply for ornament, such as painting of BGM space, then it doesn't care about anything. But if concerning about artist himself, it is a victory or defeat of artist. These works can't be interrupted no matter they are favorated or disgusted. For the CG formative art, the current works are almost weak, and to select subject from the whole structure is also feeble. Suppose having a lot of works of a hundred artists, for the most part of them can be recongized which one is who did. Having no characterists is the disease of today's CG art. The CG works is performed by human, and the processing spirit is completely reflected in the works. For instance, my former works were used to express peace, calm, and harmony of the living source. But the rescent works seems to appear the state of being run after by wild animal at recipice. Intuitively to wave a ideal blueprint and at the same time to key them in the computer without preparing design story beforehand is my currently working state. It is waked from the soft expression, and become aware to perform a eneretic works which can stimulate our mind.

65x22

(430)

Looking all my works, they have theirself separate features. For instance, the geometrical sculpture works of early stage were not implemented by precomputation, but directly by sculpture method. In those days theses works had no texture refering. Later, I considered about to utilize HDTV way to express texture, and the resolution is increased 5 - 6 times, for example, the surface of star could be added into some texture of earth surface. All the former works were performed in the CRT, that could almost be seen the trace of scan lines. And now, it can directly save the digitalized signal into tape disc, and then through the dedicated CG making device, it can produce more color and have the same resolution with the HDTV.

65x11

(215)

(2785)

plot Summary

EGGY

Yoichiro KAWAGUCHI

I am interested in life form, living things.

60x3

(180)

As my work proceeds, I am trying to discover deeper and deeper principles underlying the generation of form - morphogenesis.

When I was in Sao Paulo for a computer Art conference last year, I took a canoe trip up the Amazon. It was incredible

60x7

(420)

- huge snakes and alligators. In Australia I saw giant lizards, perfectly adapted to their environment. I saw

(600)

the Grand Canyon. Stunning. There's nothing like it in Tokyo. ... From these experiences I begin to think about possible forms, thinking, like, What if I combined the Grand Canyon with a Sea-Camber ... ?

(5735)

3760
= 2500

With our computer Graphics system for HDTV, it takes one hour of computing time to create a single frame.

(360)

At that rate a few minutes High Definition Computer Image requires a little over a year's work of computing.

This HD CG "EGGY" is programmed by my own software "GROWTH model", used basic biological function from the standpoint of Art.

the list of Credits

EGGY

by

Yoichiro KAWAGUCHI

cooperated by

Nippon Electronics College

New Video System Research Association (NVS)

Special cooperation

Hiroshi Fuchino

Yoshinobu Numano

RYO Mochizuki

Shuichi Tamegaya

AKIO Nishimura

Computer operation

Shinji Sasada

Ayumu Fukase

Toshinori Takata

music

Masaomi Kikuchi

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