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THE USE OF ANIMATION IN THE GENERATION AND DOCUMENTATION OF IDEAS IN SYSTEMS PAINTING

This is a review of my personal application of animation techniques to analyze and document visual rules within in systems based approaches to painting. I describe my art process and how animation is used to document visual decision-making at each stage of the work's development. This process allows me to capture any deviation from the system. My interest is to document the intuitive decision making processes within a controlled environment

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Figure 1. Berlin Walk, (Study in color using real-time & procedural animation), 2011, Paul Goodfellow, Digital film still, Paul Goodfellow ☯

Figure 3. Berlin Walk, (Detail), 2011, Paul Goodfellow, Acrylic on Canvas,1600mm x 1220mm. Paul Goodfellow ☯

The use of animation in the generation and documentation of ideas in Systems Painting

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This paper will summarize the systems art making process of the author and how animation is used to generate ideas and document visual decision-making processes at all stages of the development of a piece of work. This paper is written in the first person, where it relates specifically to the authors personal experience and work.

As an artist with a systems background, I am interested in the borderland between systems based approaches to investigation and intuitive experimentation in art. In thematic terms I am interested in applying this to the areas of environment and place and how this can be experienced and interpreted as an artist in four-dimensional space and how this can be reduced to an essential representation in a painting.

Systems Art

Systems have been identified within most disciplines and in simple terms can be described as a set of integrated elements that form a coherent whole. Boulding noted that 'a system is anything that is not in chaos. We could turn the pattern around and define a system as any structure that exhibits order and pattern'. [1] Systems theory, as applied to art grew from a group of conceptual artists in the late 1960's, such as Burham, Haacke and Sol-Lewitt who referenced Weiner's Cybernetics, and Von Bertlanffy's General System Theory in their writing and work. Their work was concept driven and organised by rules, and although referenced or incorporated technology made a distinction between their conceptual art and art-and-technology, (electronic art). Sol Lewitt's noted the divergence between conceptually driven cybernetic work and technology driven work in his essay "Paragraphs of Conceptual Art" (1967). He described conceptual art as a quasi-mechanical process: "In conceptual art the idea of concept is the most important aspect of the work . . . [t]he idea becomes a machine that makes the art." Whereas electronic art was in danger of being uncritically focused on the materials and the spectacle of technology. As Sol Lewitt's stated "new materials are one of the great afflictions of contemporary art. . . . The danger is, I think, in making the physicality of the materials so important that it becomes the idea of the work (another kind of expressionism)". [2]

A key figure in Systems Art is the artist Hans Haacke. In 1971 he proposed a Guggenheim show in which a caged Mynah bird repeated the words 'All systems go'. Haacke could not train the bird to repeat the phrase though, and the project was treated as a conceptual proposal. The suggestion in the title is that ultimately all systems are open, and subject to failure or uncontrollable external factors. In an earlier work, (Chickens Hatching, 1970), Haacke had created a controllable system that relied on a simple feedback system of lamps and thermostat to control the hatching of chicks. This contrasts with 'All systems go', as the later work relied upon a parameter that could not easily be moderated in a system; namely the bird talking. [3]

I am interested in the space between these two works. I am interested in controllable systems, and the limits of controllable systems. I am interested in the role of the artist, and whether the Mynah bird's free will represents the free will of the artist to submit completely to a system, or even the viewer and their role in the wider distributed system.

Background

I originally worked in development of Geographical Information Systems, (GIS), for environmental and development projects. I was drawn to the way complex physical and social systems were integrated, modeled and visualized spatially and temporally. In my research I was coming across spatial and temporal patterns and phenomena in the data that could not be explained by the defined system or model. I was finding visual patterns in the data through intuitive visual manipulation, (such as animating the data over time), that could not be readily explained by subject specialists. I did not understand how I could perceive patterns in the data, when the system could not support such a finding. Thus the system required constant revision to accommodate the new findings. Alternatively the limited models could be understood as offering a supportive framework to interrogate the data to a certain depth, but ultimately the last step required an intuitive leap of the imagination. It was this borderline between a well-defined system and the transgression of the system that fascinated me, and continues to fascinate me as an artist. How systems are revealed, revised, transgressed and fail.

Walking as an art system.

Collecting experience and information through walking is a personal attempt to bring the technological approach of spatial analysis in the forms of GIS and GPS along side the surrealist, aesthetic and impressionistic approach of visual art. This duality of objective and subjective is accommodated in the ideas of Psychogeography. The origins of Psychogeography can be traced back, primarily to Paris and to Charles Baudelaire's 1863 essay, The Painter of Modern Life in which he described the Flâneur, "a person who walks the city in order to experience it". [4] The first major written work by a Flâneur practitioner was the unfinished The Arcades Projects by Walter Benjamin in which he documents in great detail his walks and interactions in the former arcades of Paris. This idea of the passive urban stroller was transformed in the 1920's by the founder of surrealism André Breton who used the urban stroll as a positive tool to challenge perceptions of reality. Over time the perceived failure of Surrealism to reform society through these methods new, more explicitly political groups developed that played on surrealist ideas. The Situationist International, under the direction of Guy Debord did much to define Psychogeography as it is understood today. At the heart of Psychogeography was the aim of combining subjective and objective knowledge and studies and Debord attempted to resolve this inherent paradox in his 1958 book "Theory of the Dérive". [5]

On another level my work references environmental art and artists, such as Richard Long and Hamish Fulton. Long, for example, has based his routes on geometry, giving his walks structure and a self-contained composition. Thus he avoids any sense of ritual or potential narratives, such as the following of Ley Lines. He has also removed any historical associations from his paths, to concentrate on the geometry. He uses systems to keep his choices to the minimum, so the walks don't become a personal response to or expression of the landscape. In contrast my walks, although based on systems, (which can include geo-information, maps or socio-economic systems,) are a way of finding the point where I can transcend the system in both walking and mapping terms and express a deeper essence of the place, as articulated in Heidegger's conceptions of place and topology. [6]

On a practical level walking has been chosen as it is a direct way of experiencing a place qualitatively, and a useful way of capturing data quantitatively, due the relatively slow movement through space. A walk can be defined as an art system that produces outputs, which in turn is representative of both the environment and sense of place. The walks I make are a private performance that is recorded. The art work made from the walks are a culmination of organizing and interrogating the recorded information in a systematic way, and then transcending this order to make controlled, but spontaneous decisions during the final making process.

Methodology

I take a walk and document the walk with digital cameras, and log the positional information with a GPS device. I use this as source material to make animations that map the walk through the duration of the film. I also attempt to reduce the walk to a single image by collapsing all the frames into one image. This is made into computer-generated images, drawings and paintings.

The work is based on a set of procedures for the collection, organization, and manipulation of the source material. The source films are re-played and manipulated in real-time through a set of systematic rules that are controlled through numerical ranges, and digital controllers, as you would a computer game. At this stage the work being created is a mix of programmed rules and variables that are being manipulated by the controller. It is therefore a piece of work that is contained within a rigid set of rules, albeit one that allows for a range of choices. Animation is crucial at each stage of the creative process and these will now be described in order.

Stage 1. Data collection using stop-motion animation

During a walk a time-lapse camera is worn on the chest. This automatically takes a photograph every 10 seconds, and a GPS logs the position. The geo-located images from the walk are turned into a stop-motion film.

Stage 2. Studies in color using real-time & procedural animation

Using a digital drawing tablet a continuous line is drawn over the film, directing the pen to sample colours and aspects of the photographs that interested me. The line produced is combination of sampled colours and sampled photographic details. In my other hand I controlled a set of midi sliders to control parameters such as sample size. This process requires a continuous line to be drawn for the duration of the film. See Figure 1.

Stage 3. Studies in composition using real-time & procedural animation

During this stage compositions can be generated in real-time through a combination of intuitive interaction with certain parameters using midi controllers, and procedurally controlled parameters that are driven by data, such as altitude. From this process several outputs can be derived. These include computer-generated prints, drawings based on paths taken from the GPS, (gpx), files and detailed studies for compositions. See Figure 2.

Stage 4. Painting development using projected animation

The real-time animations made at the composition stage are complete when I am happy with the composition. As this is recorded as a film I can scrub backwards and forwards through time to understand how the image has been constructed and use it as a guide for the construction of a painting. At this stage the animation is projected onto the canvas, and used as a frame of reference. The overall composition of the painting will be taken from the animation. Each new element appearing in the animation denotes a new element for the painting. For each of these elements I need to make an explicit decision on the canvas; whether to use the 'design' from the animation or to make changes in terms of color, shape and position. The only factor that will not change is its relative layer of painting, as this equates to it's position on the timeline. See Figure 3.

Stage 5. Capturing the painting process using stop-motion

During the painting process the canvas is photographed with a camera using remote control shutter control. This captures the addition, subtraction and alteration of each new element. Thereby capturing each painting decision that deviates from the animated version.

Painting is a modest way of fixing variables and glitches in material, that stands in opposition to the increasingly interconnected and ephemeral distributed system of commodified communication and consumption. Painting captures the spatial and the temporal, and all the decisions that have been made regarding the construction of the painting. It condenses time-based work or systems into a single frame. It allows the artist to take something temporal, held mentally and make it visible, non-linear and compositional. It is an antidote to technology, programming, and perfect closed systems, as it is a way of having closure, forcing commitment to the material world. Painting is time-dependent, the drying paint forces decisions within a certain time frame.

Stage 6. Post painting time-based analysis using compositing techniques

The final stage is to replay the real-time animation created at stage 3 and the stop-motion animation created at stage 5 simultaneously. Firstly these will be played adjacent to each other, and secondly they will be overlaid using compositing software. This will highlight the differences between the two works, and these differences can be extracted as a new film. In essence this Boolean operation will generate the difference between the two works, and make explicit where I made decisions that deviated from the system. I am interested in the boundaries between these systematic rules and the intuitive real-time decisions in these works. I am interested in mapping out the systematic, and highlighting the intuitive. A key question to explore in the future is whether there is a difference between decisions made in real-time on the computer in a structured environment, as compared to real-time decisions made in painting in a structured environment?

Conclusions

There is no such thing as a perfect closed system or model in the real world that perfectly reflects the phenomena it seeks to represent, as there will always be variables that you cannot account for. A system therefore can only be an approximate model of the real world. Likewise a systems-based approach to painting can only be an approximate model, and cannot explicitly encompass all the decisions a painter makes during the painting process.

Animation is used to document the systems methodology I employ at each stage of the creative process. It allows me to capture any deviation from the system; to map the randomness, and chaos. My primary interest is to document in a time-based way the intuitive decision making processes taking place within a controlled environment. Animation is an excellent method for such documentation. Ultimately I am interested to understand what this might say about the relationship between intuition, conscious and sub-consciousness decision-making in art.

References and Notes:

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