In this particular volume the issue of art as interference and the strategies that it should adopt have been reframed within the structures of contemporary technology as well as within the frameworks of interactions between art, science and media. What sort of interference should be chosen, if one at all, remains a personal choice for each artist, curator, critic and historian.
THE ART OF DECODING
n-folded, n-visioned, n-cultured

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Scientific modelling requires us to suspend disbelief, nowhere is this more palpable than in artificial life, an area of computational research investigating the principles that constitute a living system “without making reference to the materials that constitute it.”

This paper investigates artificial life visualisation as both a scientific concern and in relation to media arts. Of interest in this examination is the normative protocol of looking at an artificial life simulation or ‘world’. Analogous to looking through a telescope or microscope, the view into the artificial life world is monocular and often fixed; in this regime we look at ‘organisms.’ This strategy of looking through the scientific lens to observe a ‘natural world’ enforces other forms of cultural tactics that require decoding including but not exclusive to Bazin’s ontology of the photographic image, Disney nature films and other “apparatus-based universes which robotize the human being and society.”

Subsequent to identifying these protocols in artificial life visualisation I describe a number of works which exploit normative computational procedures to align artificial life image making into optical consistency with other forms of contemporary culture and to celebrate the ‘ocular madness’ found in art forms such as neo-baroque image making and Islamic art.
ational life visualisation is dependent on observing ‘lifelike behaviour’ in the image and deciphering emergent patterns in it, ‘the world’, what is perceived in the ‘world’ or on the screen is what there is to perceive.

The coded generators of this lifelike behaviour are often referred to as ‘creatures,’ ‘cyberbeasts,’ ‘etcetera’ and ‘virtual organisms.’ These creatures, often ‘live,’ ‘fight,’ ‘breed,’ ‘trade’ and ‘die’ in the virtual world; that said, rarely do they ‘work,’ ‘shop,’ ‘shit,’ ‘fuck’ or afford general patterns in ‘the world’; what is perceived in the virtual world is what there is to perceive.

This institutionalised orientation is not exclusive to scientific study of an A-Life ‘world’ are described through the discursive framework and nomenclature of science and economics, more so than from a personal intimate perspective of life.

This institutionalised orientation is not exclusive to scientific study of the artificial life. Observation vis-à-vis the camera (virtual or otherwise) are devices that create images. That all images are ‘mediations between the world and human beings’ is an important reminder that an image is not a window into a world – it is an image. In this, all image making is rhetorical. Flusser’s description of the photographic apparatus is a critical reminder that: ‘[the] “objectivity” of technical images is an illusion. For they are – like all images – not only symbolic but represent even more abstract complexes of symbols than traditional images. They are metaphors of texts which . . . signify texts, not the world out there.’

Flusser’s sombre view that the ‘photographic universe and apparatus-based universes robotize the human being and society,’ is a timely cue that the investigation into the interpretive regimes and the technical apparatus gives only a partial dimension to the relationship between artificial life and the moving image. Other important factors under consideration are the narratives that accompany artificial life works themselves. Scientists often publish in scientific journals fictive accounts of the artificial life system that simply don’t accord with the target system, as illustrated in Watson and Lovelock’s study of an “imaginary planet [with] a very simple biosphere” in the project Daisyworld. After warning the reader that they “are not trying to model the Earth, but rather a fictional world,” Watson and Lovelock go on to describe Daisyworld: “Owing to a subtle change of climate, clouds appear on daisyworld [sic]. The clouds are light in colour. We will assume that the clouds form only over stands of black daisies because of the rising air generated over these warm spots.” To state the obvious, stylised descriptions have properties that the models don’t afford. And as Michael Renov convincingly argues, all discursive forms are “at least fictive, this by virtue of their tropic character (their recourse to tropes or rhetorical figures).”

The stories that migrate in artificial life are contemporary accounts of ‘nature’ whose genealogy can be traced to Disney filmmaking, specifically, the nature film (to simulate life as we know it vis-à-vis moral and political refractions) and Disney animation, which, as lead Disney animator Art Babbitt observed, “follows the laws of physics – unless it is funnier otherwise.” Artificial life ‘world building’ is formed in the shadow of Disney nature storytelling; cyberbeasts, virtual organisms and agents are organised, optimised and then observed, like the Disney animal kingdom, to trade, fight, breed and die. Moreover, similar to Disney stories that do “something far more than reveal ‘nature’s mysteries’: [they] speak to us of a living and intelligible world beyond the fiction of civilization, a world we [can] enter at will and experience in something like human time.” Artificial life is of its essence a dramaturgy of the fitness landscape.

n-FOLDED, n-VISIONED, n-CULTURED

A high degree of artifice is involved in scientific visualisation in general, more so in artificial life ‘worlds.’ Take for example the virtual camera that frames the view into the artificial life world. The term virtual camera itself is shorthand to describe an array of algorithmic functions, some of which are mapped to functions that have equivalence in digital cameras. The virtual camera is also host to a large range of algorithms
The project explores the tensions inherent in employing the mathematical rationalisation of pictorial space as a model through which to filter my emotionally and biologically mediated experience of the physical environment. By encoding the virtual camera to reorder the visual field of the 3D scene to ‘what I find interesting’ (emotional valency) I unpin the grammar of the virtual artefacts not just the virtual camera.

And this is the point. At stake in artificial life image making is agency. Instead of looking at creatures etc, it is incumbent upon us to examine what it means to look through an interpretative agent’s ‘point of view.’ Drawing on a media ecological framework Matt Fuller asks, “What arises when two or more standard processes, with their own regimes, codes, modes of use and deportment, systems of transduction, and so on, become conjoined?” Fuller’s question can be restated as, what arises when the conventions, processes and protocols from artificial life are conjoined with those from film, cinema and the moving image? The closest reference point that articulates what this interpretative agent might be is situated in the grammar of the moving image – the filmmaker. This merging of discursive practices frames an examination into an artificial life ‘filmmaker’, as it (the system) searches for interesting themes, selects interesting shots and adapts to evolve the entire parameter space, including the z-buffer, to generate or evolve a new visual grammar or syntax of the moving image.

Travlogue: A recording of Minute Expressions (Travlogue) is a generative work that explores this theme. The central motif of the work draws inspiration from Islamic art and Persian carpet making. The metaphor of the Persian carpet orients both Travlogue and artificial life, including themes of ‘emergence,’ self organisation and “lifelike behavior” as de rigueur into the longer genealogy of the human endeavour. Though much has been made of these themes in artificial life, their formation precedes artificial life in that they are well-honed principles in Islamic art and Islamic carpet making.

The Persian carpet is a metaphor to describe the intercultural traffic in both Islamic art and the overarching research into artificial life and generative art. This seems appropriate given the trade in and migration of epistemological, institutional, financial, re-

Figure 1. Schematic comparison between a conventional and reordered z-buffer. © Mark Guglielmetti, 2007. Used with permission.

Figure 2. Architectural model of the Trocadero Artspace. © Mark Guglielmetti, 2007. Used with permission.

Figure 3. Laboratories of Thought and Experimentation for Future Forms of Subjectivation. © Mark Guglielmetti, 2007. Used with permission.
igious and scientific discourse and artefacts in Islamic culture. In other words, Travelogue explores the trade in cultural artefacts, including the migration of encoded grammars and interpretative regimes and the production of knowing subjects in “an unstill centre of a turning world.”

The ‘world’ in Travelogue is seeded or initialised with statistical census data on tourism in Turkey, September 2010. Data from the “monthly number of arriving foreigner visitors” provides the initial resources to populate the work. Other data, such as “$ spent per foreigner” and “number of foreigners of nationality and group of age-gender” populate other variables in the system, which are used to mathematically describe the drawing ‘agents’ (expressions). During ‘runtime’, the expressions exchange data with other expressions, but this ‘interaction’ is not visualised. The exchange of data between expressions provides various mathematical resources to other expressions, which enable the expressions to change scale, colour, location and number; similar functions enacted in other generative systems without personifying the expressions with slippery terms like ‘fight,’ ‘breed’ and ‘die.’

The work is displayed across multiple screens. One screen displays an orthographic view of the ‘world’, which references Persian carpet design and provides context to the overall system. This visualisation might be described as a re-imagining of the potential enfolding tourist trade in Turkey but just as well as an expression of the system. See Figure 4.

A second screen displays a view as expressed from the virtual camera in the ‘world.’ The virtual camera draws from a variety of grammars from the moving image, such as zoom and pan but also reorganises other grammars such as the z-buffer. The virtual camera/filmmaker shoots or reframes what is ‘interesting’ to it – whatever that ‘interesting’ is, of course, immeasurable. See Figure 5. These views into the world render non-perspectival and non-optical images of the world, that is, images that do not favour or analogize the camera. See Figure 6.

In this light, the ‘virtual camera’ is, at best, an impoverished metaphor to describe the expressive potential for an array of visual representations into and of 3D space. A more appropriate idiom for the interrelated algorithms that give rise to the view into 3D space might be “cameralless camera” but this also evades the obvious, there is no camera; software mediates the view into virtual space.

CONCLUSION

Stan Brakhage understood what is at stake perhaps better than most writing:

> the increased programming potential of the IBM and other electronic machines now capable of inventing imagery from scratch. Considering then the camera eye as almost obsolete, it can at last be viewed objectively and, perhaps, view-pointed with subjective depth as never before. Its life is truly all before it. The future fabricating machine in performance will invent images as patterned after cliché vision as those of the camera, and its results will suffer a similar claim to ‘realism’, IBM being no more God nor even a ‘Thinking machine’ than the camera eye all seeing or capable of creative selectivity, both essentially restricted to ‘yes-no’, ‘stop–go’, ‘on-off’, and instrumentally dedicated to communication of the simplest sort. Yet increased human intervention and control renders any process more capable of balance between sub- and-objective expression, and between those two concepts, somewhere, soul.

In digital media image making, there is an array of potential to reorganise the visual field. From this array, I examine two, apparently disparate, research fields – artificial life and 3D simulation – both of which employ the virtual camera as the interface to 3D virtual worlds or visualisations. If artificial life is to truly generate life-like behaviour and emergence, what could be more lifelike than organising both the visual field and scopic regimes into optical consistency with other forms of contemporary visual culture does no more, or less, than align competencies expressed in artificial life after the human endeavour.
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