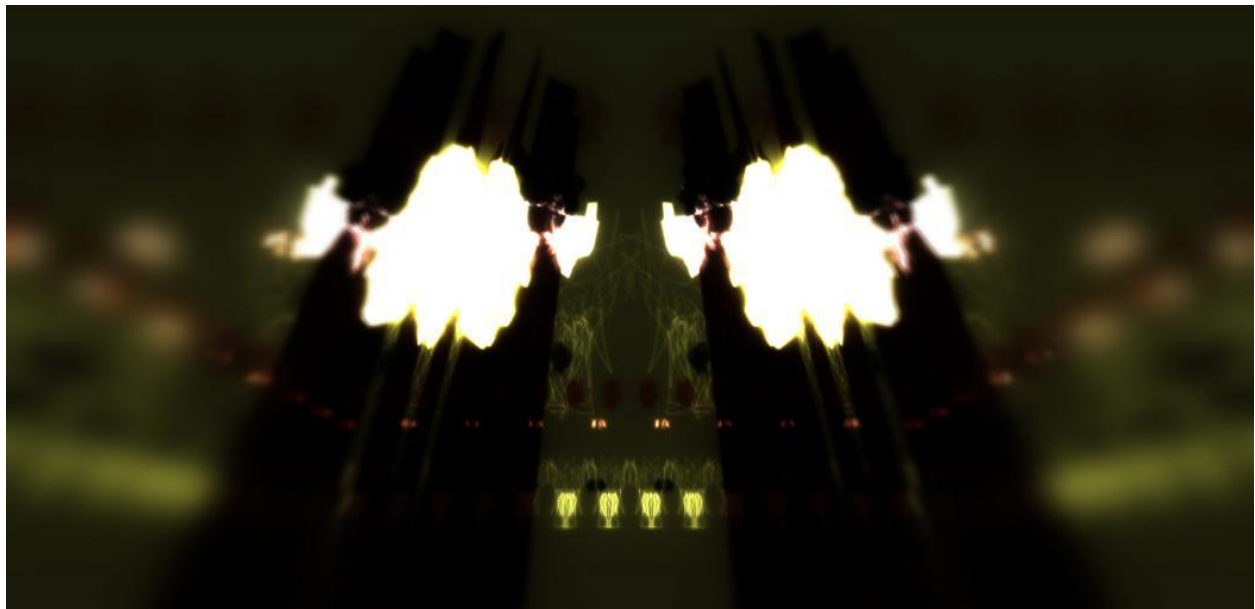
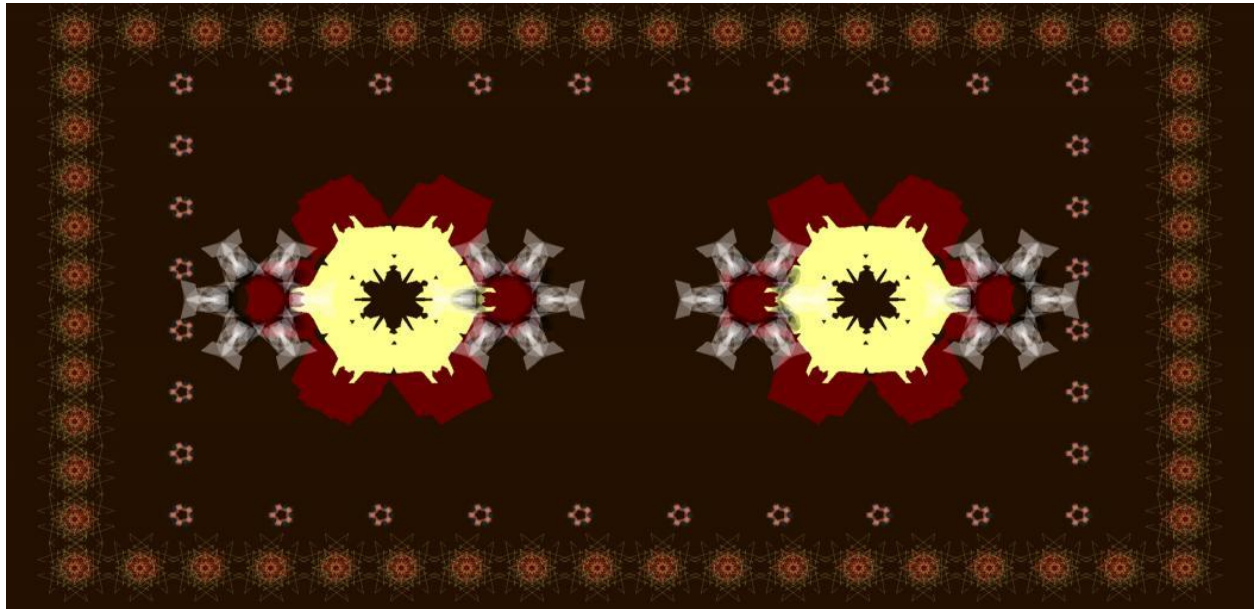


TRAVELOGUE: THE EXPRESSIVE POTENTIAL FOR AN A-LIFE FILMMAKER

MARK GUGLIELMETTI & INDAE HWANG

Travelogue: a recording of minute expressions explores the expressive processes of film and A-Life to propose co-evolving an A-Life world with an artificial filmmaker to evolve a documentary of 'interesting things'. The paper frames the research and examines the potential to expand both the grammar of film and A-Life to evolve a new visual syntax and to create new logics for transitions and alternative visual/thematic analogies.



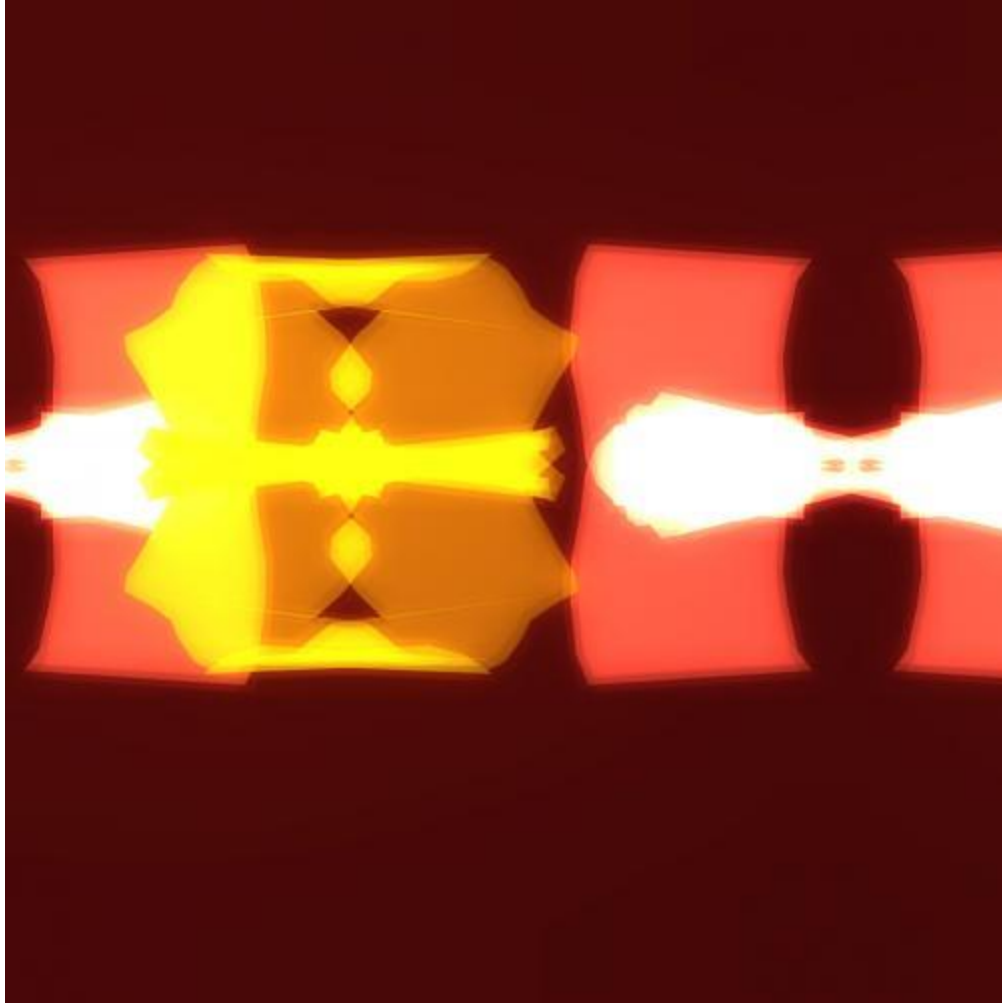


Figure 1-3. *Travelogue: a recording of minute expressions, 2011, Mark Guglielmetti in collaboration with Indae Hwang. Software, code. Copyright the artists.*

INTRODUCTION

The term 'artificial life' (A-Life) and Langton's often-cited trope to locate "*life-as-we-know-it* within the larger picture of *life-as-it-could-be*" are beautifully evocative and provocative, as are the descriptions of the occupants of these "virtual worlds"; such as Sommerer and Mignonneau's "creatures", Jane Prophet's "cyberbeasts", and Karl Sim's "virtual organisms." These creatures, etcetera, often "live," "fight," "breed," "trade" and "die" in the virtual world; that said, rarely do they "work," "shop," "cook" or afforded a 'point of view'; sticky messy descriptions that, apparently, rarely pervade the imaginative and iterative loop of pattern generation. The anthropomorphic machinations of an A-Life "world" are usually described through the discursive framework and nomenclature of science and occasionally economics, more so than from a personal intimate perspective of life.

This institutionalised orientation is not exclusive to the nomenclature of A-Life as a journalistic enterprise for academic publications and as filter for the artist's press release, but extends to other taxonomies of A-Life such as the interpretive viewing regime of the A-Life world. The normative viewing

protocol through which to view an A-Life world is predominantly through a "window" into the A-Life world; in 3D computational space this window is framed through the virtual camera view into the modeled world. Whilst there are a few notable exceptions, such as *Technosphere* (1995) by Jane Prophet, Gordon Selley et al, I argue there is a ubiquitous approach and standard protocol in A-Life world making that draws from both the practice of science, observation as *raison d'être*, and expressions from cinema, specifically Bazin's 'long take', even if these normative practices are not explicitly obvious to the practitioners modeling these 'worlds'.

Whilst the A-Life artist's vision centers on a range of poetic investigations and interventions, the aforementioned institutionalised discursive orientations and normative grammars are nonetheless political. Observation as a model occupies a long-standing tradition in the west for a social-cultural controlled search for natural order; how we see what we see as a spectator or user is important. [8] A number of A-Life artist's might dismiss this argument, however as Shanken demonstrates in his brief analysis of the *quadri riportati* and *quadratura*, the view into and of the world is critical; varied representational schemas reconfigure our perception and relation to the world. [10] In the case of the virtual camera, observation vis-à-vis the 'long take' stands in reserve as the de facto protocol which functions to record (shoot) an unmediated reality of the A-Life 'world', perhaps for good strategic reason; when "we abandon the notion of a camera as an adversary to the world ... and instead place the accent on its "natural" connection to the world, we reach another, more orthodox version of a camera. This approach stresses the necessary, scientific links among objects, light rays, and film emulsion [...] A camera comes the bearer of tokens from the world." [4] A natural order is established in service of scientific method; measurement, classification, documentation and re-presentation arbitrate fact from magic, facts are not man made, as Shapin and Schaffer observe "it is not I [the experimenter] who say this; it is the machine." [11] The apparatus of the scientific optical device, including telescopes, microscopes, the immobilized lens, in other words the *arts of reality*, [9] stand in reserve to observe and reaffirm a natural order; the virtual camera affords a strategic 'world view'.

During the "speculative pre-history of artificial life" [5] cybernetic artist and theorist Roy Ascott openly contested "deterministic vision" in art, writing; "The perception of our own times is more inclusive and panoptic; the simultaneity of events and their endless changeability have called for a depth of field that zooms from the microscopic to the macroscopic." [2] Whilst contemporary new media artists explore the "microscopic to the macroscopic" in an infinite array or indeterminate number (n) of expressions in software and hardware, including the virtual camera in A-Life's sibling Artificial Intelligence, the virtual camera in A-Life predominantly remains underexplored; the entire parameter space or *phase space* of the virtual camera in A-Life is up for grabs.

PROJECT DESCRIPTION

The project *Travelogue; a recording of minute expressions* is a hybridized visualization-generative-cinematic system exploring the tension between the microscopic and macroscopic, and it does so to examine a range of cultural grammars including; the scopic regimes of both the 'long take' and montage; representation and aniconism; narrative and visualisation; in other words, grammars of realism (without the ideology that underwrites much in A-Life, the biological metaphor). The work is rendered in real-time in three-dimensional software (3D space) and displayed as a multi-channel installation; at ISEA2011 the work is displayed in two 24" LCD monitors.

The central motif of the work draws inspiration from Islamic art including Turkish and Persian carpet making, see Figure 1. The motif strategically orients both the project and A-Life, including ‘emergence’ as *de rigueur and practice*, into the longer genealogy of the human enterprise. Whilst much is made of the critical role of emergence in A-Life, [12] the conception of emergence in art precedes A-Life in Islamic art and carpet making; Laura Marks observes, “both Islamic art and algorithmic media enact the emergence of Everything (or, A Lot) from One (or, Not Much).” [7] For Christopher Alexander emergence in A-Life is even more tightly connected to Islamic carpets in that the purpose of the carpet was more than to create a representation of life as it is but moreover to generate life as it could be in the “emergence of a being” or God; “A carpet is a picture of God.” [1]

The “world” in *Travelogue: a recording of minute expressions* is seeded or initialized 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; these variables are used to mathematically describe ‘agents’ (expressions). During runtime the expressions “engage” with other expressions; this “engagement” is not visualized, reducing the capacity to anthropomorphize the system. The algorithmic transactions between expressions provide various resources to other expressions, which enable them to change scale, colour, location, number; similar expressions enacted in other A-Life systems without layering the expressions with slippery terms like “fighting” or “breeding”. The orthographic view into the work frames and gives context to the system; the resulting moving image might be described as a re-imagination of the *potential* enfolded tourist trade in Turkey but just as well be described as an expression of the system.

The second screen displays a view as expressed from the virtual camera in the “world”. The format of the virtual camera expressions draws from a variety of grammars from the moving image, such as montage, zoom, pan etc. but also novel expressions unique to 3D software space such as rewiring the virtual space’s *z-buffer* to reorganise the drawing logic of the virtual space in relation to the virtual camera, as discussed in Guglielmetti. [6] The virtual camera/filmmaker shoots or *nframes* what is ‘interesting’ to it; whatever that interesting is, is unknown to the author. See Figure 2-3.

The virtual camera in *Travelogue; a recording of minute expressions* does not attempt to capture or attempt to construct narrative as it is or narrative as it could be. Moreover, any attempt to reconfigure the project within a user-centered utilitarian approach found in some A-Life art [12] misses the point; this is a process-centered work that self-regulates the microscopic to the macroscopic. The virtual camera expressions resist, to limited degree, the “patterned clichés” enlisted as normative narrative protocols in addition to any claims to “realism.” [3] In other words the virtual camera functions as “an eye unruled by man-made laws of perspective, an eye unprejudiced by compositional logic, an eye which does not respond to the name of everything but which must know each object encountered in life through an adventure of perception.” [3]

CONCLUSION

Travelogue: a recording of minute expressions is an initial and tentative foray into the potential for artificial life filmmaking with much predicated on the “virtual camera” in 3D space. The virtual camera is critical for this iteration of the project in that it simulates a fully functional *digital* camera; the virtual camera is an array of algorithms, some of which are mapped to functions that have equivalence in physical digital video cameras others specifically used for ‘post production’ effects, such as motion blur or glow. In

and around these technical constraints have developed various grammars of the moving image; for the purpose of 'simulating' a subjective point of view these grammars persist in *Travelogue*.

However, the virtual camera is host to a range of algorithms, such as the z-buffer, that specifically encode *3D space* and have neither correspondence in the physical world or in other software formats. The challenge for research into the grammar of artificial life filmmaking is to jettison the "camera" itself as the primary metaphor to describe the view into a 3D space; there simply is no camera. Meredith Hoy rightly observes in her ISEA presentation description for *Virtual Resistance: A Genealogy of Digital Abstraction*, "computationally generated pictures analogize and favor the visual qualities of a world seen through a camera lens". Hoy's statement has particular resonance in visualizing 3D space in FPS games, VR, machinema, artificial life, architecture and engineering. Any extended investigation into artificial life filmmaking for the purpose of creating a new syntax and visual grammar must include a closer inspection of the infinite array of views into the world for the purpose of re-compositing these views into a non-photorealistic rendering of the 'world.'

This experiment into an extended range of capacities in A-Life imagemaking is inspired by artist and experimental filmmaker Stan Brakhage who understood what is at stake perhaps better than most:

the increased programming potential of the IBM and other electronic machines [are] 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." [3]

ACKNOWLEDGMENTS

The author would like to thank the Australia Council for the Arts, ANAT (Australian Network for Art and Technology), and the curatorial team Vince Dziekan, Paul Thomas and Sean Cubitt for their kind support.

This research was supported by the Australian Research Council's Discovery Projects funding scheme (project number DP0772667).

References and Notes:

1. C. Alexander, *A foreshadowing of 21st century art: the color and geometry of very early Turkish carpets* (New York: Oxford University Press, 1993).
2. R. Ascott and E. A. Shanken, *Telematic Embrace: visionary theories of art, technology, and consciousness* (Berkeley: University of California Press, 2003).
3. S. Brakhage, *Essential Brakhage* (New York: McPherson & Company, 2001).
4. E. Branigan, *Projecting a Camera* (London: Routledge, 2006).
5. M. Fuller, "Faulty Theory," *The Fibreculture Journal* 17, *unnatural ecologies* (2011).
6. M. Guglielmetti, "A-Life: the creation and development of new modes of realism," *Re:live 09 Histories of Media Art, Science and Technology*, Melbourne, 2009.
7. L. U. Marks, *Enfoldment and Infinity* (Cambridge, MA: The MIT Press, 2010).
8. K. Mondloch, *Screens: viewing media art installations* (Minneapolis: University of Minnesota Press, 2010).
9. L. Mulvey, *Death 24x a second* (London: Reaktion Books, 2006).
10. E. A. Shanken, "Virtual Perspective and the Artistic Vision: A Genealogy of Technology, Perception and Power," in *ISEA96 Proceedings* (Rotterdam, 1996).
11. S. Shapin and Simon Schaffer, *Leviathan and the air-pump* (N.J.: Princeton University Press, 1989).
12. M. Whitelaw, *Metacreation: Art and Artificial Life* (Cambridge, MA: The MIT Press, 2004).