Bizzocchi, Jim. "Ambient Art and Electronic Literature." *Electronic Literature as Digital Humanities: Contexts, Forms, & Practices*. By James O'Sullivan. New York,: Bloomsbury Academic, 2021. 105–115. *Bloomsbury Collections*. Web. 26 Apr. 2023. <<http://dx.doi.org/10.5040/9781501363474.ch-008>>.

Downloaded from Bloomsbury Collections, www.bloomsburycollections.com, 26 April 2023, 04:32 UTC.

Copyright © Volume Editor's Part of the Work © Dene Grigar and James O'Sullivan and Each chapter © of Contributors 2021. Released under a CC BY-NC-ND licence (<https://creativecommons.org/licenses/by-nc-nd/3.0/>). You may share this work for non-commercial purposes only, provided you give attribution to the copyright holder and the publisher, and provide a link to the Creative Commons licence.

8

Ambient Art and Electronic Literature

Jim Bizzocchi

Ambient video art and electronic literature are separate domains, with fundamental and significant differences in goals, aesthetics, and experience. The goal of ambient art is an experience that is pleasurable, but one that doesn't require ongoing attention by the participant. The goals of electronic literature are as diverse as the goals of literature itself, but in general the creators of electronic literature aim for an experience that involves and holds the reader more directly than the softer touch of ambient art. This chapter outlines the differences between the domains, but does not see these differences as boundaries, walls, or contradictions. Rather, the differences are positioned as end points on various continua—dynamic poles that define sets of creative dialectics. My own work is used as an example of how the dialectics of both ambient art and electronic literature can play out in practice.

Electronic Literature

The definitions and boundaries of these two domains are not absolutely agreed upon within their respective communities. “Electronic literature” (also known as e-literature, or e-lit) is the more complex domain. N. Katherine Hayles outlines a number of creative directions within the broad field of electronic literature: hypertext fiction, network fiction, interactive fiction,

location-based works, interactive drama, and generative e-lit, among others. Formulating any boundary or definition for this widespread body of work and community of creators is a difficult task. The Electronic Literature Organization (ELO) maintains that its mission is “to promote the writing, publishing and reading of literature in electronic media.” Hayles cites the more focused conclusion of a committee asked by the ELO to formulate a definition. The committee saw electronic literature as “work with an important literary aspect that takes advantage of the capabilities and contexts provided by the stand-alone or networked computer.” This still leaves a range of directions too wide for any neat categorization. Hayles positions the field’s hybrid roots and branches as a strength, seeing electronic literature as a “hopeful monster” made up of parts from “diverse traditions that may not always fit neatly together.”

What are the attributes that are broadly shared within this diverse body of work? The ELO says of e-literature that “reading and writing remain central to the literary arts.” Dene Grigar sees interactivity and participation as core modalities, and experience and immersion as desired outcomes for works of electronic literature. I would add that insofar as it is literature, most electronic literature privileges some type of narrative experience. In this regard, I am using a broad conception of narrative and “narrativity,” which could include plot, character exposition, storyworld creation, empathic emotion, or combinations of these and other narrative elements (Bizzocchi 2011: 5–10).

Ambience and the Moving Image

Ambient moving image art is a slow form of mediation—one that plays out leisurely on the large video screens increasingly prevalent in our domestic, corporate, and public spaces. What does one do with these screens when they are not providing the direct engagement of home theatre, television programming, electronic gameplay, or utilitarian information display? Ambient video offers striking yet slowly changing imagery—reconciling visual pleasure and intermittent viewer attention. The various forms of ambient video can be based on either representational or abstract imagery—but they must always give visual interest. Sometimes called “living photographs” or “video paintings,” the form exists in what Higgins would term an “intermedia” space—with content and reception experience drawing on the aesthetics of photography, painting, cinema, and video.

Ambient moving image art is a more limited field of endeavor than electronic literature—in both terms of the size of its practicing community and diversity of its output. However, there are distinct directions of manifestation. These include some well-known kitsch examples such as

the venerable televised Yule Log, video aquaria, and digitally networked webcam visual sites. Much more interesting artistic directions are abstract moving image art such as the Visual Music movement, the representational works of video installation artists such as Bill Viola or Stan Douglas, or the slow-paced nature experiences of Simon King or Steve Lazur. The latest manifestation of the ambient aesthetic is the “Slow TV” movement which has emerged in Norwegian and British broadcast television.

Regardless of the differences in content and approach, all of these variations draw upon the core aesthetic of Brian Eno’s “ambient music”—which he says “must be as easy to ignore as it is to notice.” My own ambient video art is conceived very much in the spirit of Eno’s dictum. My aesthetic includes three tests for ambient artistic success:

- i. Ambient video art must *never require* your attention.
- ii. Ambient video art must *always reward* your attention with visual pleasure.
- iii. Ambient video art must *continue* to provide visual pleasure after repeated viewing.

My work relies on three artistic interventions to meet these tests. Because ambience is a slow form, I need strong visual compositions to support the extended on-screen shot duration. My ambient work benefits from the striking natural imagery of the Canadian Rockies and the North American western mountains and coasts. Second, I treat time as plastic, varying subject speed to maximize visual interest. Finally, I incorporate a complex visual transition process. Each shot gradually changes to the next through a series

FIGURE 1 Rockface *transition*.

of “magic realist” transformations within the frame. Figure 1 shows the first transition from my film *Rockface*. The transition begins with the waterfall from the incoming shot, exploding over the mountains at the end of the on-screen shot. The transition ends by introducing the lake and the rest of the second shot in a circular wipe transition starting at the bottom and then filling the screen with the second shot.

As we have seen, ambient video artists differ on their various approaches to the form. However, whether the images are representational or abstract, realistic, or surreal, all the practitioners utilize interesting imagery to build an ambient experience.

Contradictions and Dialectics

The two domains of electronic literature and ambient art are in some ways inconsistent. Most electronic literature incorporates the pleasure of story—even if the process of storytelling differs significantly from earlier forms. Electronic literature often involves the incorporation of some form of interaction by the reader. However, the classic and fully formed narrative arc of cinema or the novel is difficult to achieve in interactive environments. Despite this, e-lit creators can build smaller “micronarrative” elements to support a more flexible narrative plot progression. These “micronarrative” elements are localized units of plot coherence that string together in various combinations to move the overall plot forward (Jenkins 2004: 118–19; Bizzocchi et al. 2014). Other narrative elements are fully consistent with interactive design: the pleasures of character recognition, storyworld experience, and emotional empathy. Narrative sensibilities can also be incorporated within the design of the interface, allowing the user to experience a sense of narrative inflection and narrativity in the process of interaction and choice-making (Bizzocchi et al. 2011; 2008: 260–77).

Ambient art, on the other hand, is fundamentally inconsistent with both narrative and interactivity. The problem is the question of viewer experience. An ambient experience, by definition, can not be one that demands your attention. The viewer must feel free to disengage at any time. Narrative, however, exercises a firm hold on viewer attention. In a narrative experience, once we see the beginnings of a plot and build an initial sense of character identification, we feel compelled to follow the story through to its end. In cinematic terms, ambient art is inconsistent with the cinema of narrative, but it can be positioned as a form of the “cinema of attractions”—the cinema that relies not on story, but on the power of the visuals to provide audience interest (Gunning 1986: 63–70). However, the “cinema of attractions” in ambient art is a highly attenuated form of “attraction.” Extreme cinematic

attractions, built on horror, shock, or strong emotion, rivet our attention to the screen. This enforced attraction prevents the creation of a truly ambient experience. In my own work, the visual compositions, the manipulated time frame, and the intricate transitions all provide visual attraction and pleasure, but do not necessarily compel ongoing fixed attention.

For different reasons, interactivity is also inconsistent with ambient experience. Any interaction design that involves a set of conscious choices requires a direct user engagement. However, ambient experience performs a more subtle dance with the viewer—a dance that is slow, and intermittent, and light of touch. The requirement to interact is the requirement to engage directly, breaking the freedom of the viewer to easily disengage and drift away at any time.

This analysis of ambient art's incompatibility with narrative and interaction is valid at a certain level, but it breaks down if we move from the narrow logic of absolutes and categorical binaries to the fuzzier logic of gradations. None of these—narrative, interactivity, or ambience—are in fact absolute. Further, it is the business of creative artists to look for and test the limits, boundaries, potentials, and intersections across any set of mediated forms. Eric Zimmerman understands this in his examination of the relationship of games and story. He is not interested in whether a game IS a narrative—he is interested in *how* a game is a narrative. His resolute rejection of categorical binaries leads to a more useful focus on the actual design and experience of mediated artifacts.

In a similar vein, our critical terms (narrative, interactivity, and ambience) can be treated more effectively as design parameters—as scalars rather than categorical absolutes. A low level of “narrativity” is not inconsistent with ambient experience. In my own work, there is no standard narrative plot, but there is a logical ordering of shots. A thematic progression is embedded within the sequence of visuals, but it is not as direct as similar arguments within more typical nature documentaries. There is also an evocation of a “storyworld” in my work—a transcendent natural environment that takes us out of our normal urban cityscapes. Other ambient storyworlds are possible. The *Frame* channel on my local cablevision feed presents a series of long slow shots in interesting urban or resort environments—with people ambling in and out, unaware they are being filmed and cablecast. I call this a “webcam” ambient aesthetic, one that also benefits from a limited sense of narrativity. We see faces in visually interesting locations, but we never get any deep sense of who these people are, and what their lives are really like. This is a liminal sense of narrative character and storyworld. It doesn't promote any strong sense of identification, but it does support a moderate level of interest without necessarily locking one's eyes to the screen.

In the e-literature community, works like Brian Kim Stefans' *The Dreamlife of Letters* draw upon the traditions of concrete poetry to create a visual experience that presents words and text in a context that privileges

the aesthetics of the visual and the poetics of motion graphics. Jim Andrew's *dbCinema* treats the world of internet images as a visual database, presenting them within a transformative and fluid visual stream. Sandy Baldwin's *The Lincolnshire Poacher* combines a still image, minimal on-screen text, and a dense sound mix to present an experience that is as much mirror as it is window. These and other e-lit works employ a variety of strategies and aesthetics in order to provide a level of engagement that reconciles ambient experience with a limited sense of narrativity.

In a similar fashion, interactive design is not completely incompatible with ambience. Explicit and ongoing interactive choice certainly inhibits ambience, but there are other options for interactive input. Some choices could be made by the user before the experience begins, or as optional modifications to the ongoing ambient flow. The types of shots, the length of shots, the selection of music or sound—all could be modified by the user in advance of the experience. Another possible interactive model consistent with ambience might be the incorporation of nonintrusive interactive channels such as location sensors or body sensors.

The interactive model with the greatest affinity to ambience is to use a form of interactivity that is self-contained within the artwork itself—independent of user input. An artwork can be run by a generative system designed by the artist. Generative art is a relatively under-recognized computational form, but one with considerable aesthetic power and expressivity. Despite its comparative lack of recognition, it has a long history, one that Galanter claims is “as old as art itself.” Generative literary forms include Surrealist word games, texts from the Oulipo movement, and electronic literature works by a number of practitioners such as Jim Andrews, Noah Wardrip-Fruin, Bill Seaman, Nick Montfort, and many others. Generative works can be consistent with ambient experience because the interaction is carried out by the computational system, requiring no interference with user attention or ambient state.

My Computational Ambient Videos

My exploration of computationally generative art grew out of the last of my three core aesthetic principles: “Ambient video art must continue to provide visual pleasure after repeated viewing.” I wondered if my linear ambient videos would meet this re-playability test. In the end I decided that their compositional strength and intricate visual transitions would hold up under repeated viewing. A fine art still photograph could hang on your wall and give pleasure—and my photographs moved, which would provide more visual variation. However, the question morphed from a practical concern to a creative challenge: could I make a computational version of my linear

ambient videos? This challenge is something of an artistic Turing Test, an exercise in what my colleague Kenneth Newby calls “encoding practice.” I wanted to create a generative system that could approximate the work I did in my linear ambient videos.

The design of generative art creation does have its own set of creative dialectics and contradictions. For me, there was an ongoing tension between artistic control on the one hand, and the maximization of output variability and therefore re-playability on the other.

artistic control $\Leftrightarrow$ variability/replayability

I found that design decisions that gave me more creative control tended to decrease the range of possible variation in the system’s output. For example, I preferred a closed system in terms of shot sources. I wanted to shoot or direct all the shots myself rather than rely on autonomous input from open sources for video files. This decision maximized my creative control over the visuals, but it also limited the number of shots I could include, and hence the variation in the visual output.

This dialectic between artistic control and variability/re-playability took many forms. Another early example was my choice of visual transition devices. In my linear videos, the complex visual transitions were hand-crafted to fit each specific pair of shots. Since my generative videos used variations on random sequencing decisions, I had to give up artistic control and find a transition strategy that would work with a wide variety of shot pairs. I decided on luminance and chrominance transitions—devices that use the brightness or color values of a given shot to shape the transition. The example (from *Seasons II*) in Figure 2 shows how this luminance transition overlays the new shot on top of the various levels of brightness of the old shot. These transitional devices provide a degree of visual interest to the transformation between any pair of images.

The most significant example of the control/variability dialectic is in my revision of the system’s sequencing process. My generative system is based on a database of video shots. In the original version, shots were selected and sequenced from my database in a completely random process. This simple mechanic was reasonably effective, but I decided to improve it. I wanted more control over the sequencing decisions to improve the visual flow and impart a degree of semantic coherence.

The solution was to use a hierarchical metadata system to tag the shots for their content, and sequence the shots based on the tags. Each shot got a single higher-level tag for season (summer, fall, winter, spring) and a lower-level complement of tags for content (river, snow, mountain, clouds, etc.). The system’s logic (programmed in Max) creates a series of “year” films as an ongoing visual output. Each “year” film consists of four seasons in order, and each season consists of three sequences of three shots each. A single

Before Luminance Transition

Luminance Transition Begins

Luminance Transition Continues

Luminance Transition Complete

FIGURE 2 *Stages of a luminance transition.*

season segment might consist of these nine shots: river/river/river—clouds/clouds/clouds—mountain/mountain/mountain. The selection of specific content tags are randomized, and the selection of shots from the chosen tags is also randomized. Since there are currently 250 shots in the shots database, and there are sixteen variations on the luminance transitions, the variability of the system is still quite high. It runs indefinitely, spitting out a series of four-season “year” films indefinitely, with very little repetition of sequencing.

This content selection logic had a significant effect on the system’s output. The level of randomized variation was diminished, but visual flow and semantic coherence increased significantly. It’s not surprising—in effect I had created a simple montage editing machine. My claim was that my machine mimicked the work of a human video editor—one who was “competent but not brilliant.” If it was enrolled in my introductory video production class, it would have earned a C+. Not a bad Turing Test result for a few lines of code.

The work of my research colleagues adds generative audio to the experience. Philippe Pasquier has created a generative soundscape system, and Arne Eigenfeldt has created a generative music system. We have developed processes to exchange timing, content, and affective information

between our three systems. Working together, they generate an ongoing and unified audiovisual flow of moving image, music, and soundscape in our collaborative art work *Seasons II*.

From Ambience to Direct Engagement

More sophisticated associational and sequencing capabilities can allow my system to simulate a more traditional cinematic documentary output. We have begun the initial planning and prototyping for a generative version of the documentary “city film.” This work will be an “open documentary”¹ that systematically presents different facets of a complicated urban society. This will include themes such as wealth, poverty, housing, diversity, commerce, transportation, manufacture, recreation, pollution, etc. A much larger database of shots will support this increased thematic scope, and a well thought-out tagging/sequencing structure will enable the construction of coherent sequences. Higher-order groupings of these sequences will build a reasonable degree of semantic connection and thematic flow. The completed system will continuously spit out an ongoing series of short “films”—each one unique in content, style, or both.

This new work will not be a “storytelling” machine, but it will support a sense of “narrativity”—the expressive presentation of storyworld, human characters, thematic development, and emotional tenor. As these semantic connections become more sophisticated, the resulting experience becomes less ambient. This more narrativized mediation will tend to hold our attention more strongly. The move away from an ambient aesthetic will lead to an experience that is more intellectually complex and emotionally engaging. This more direct engagement will shift the aesthetic from the ambient into the broader body of electronic literature.

It is worth noting that the core logic and operations of the system can support either an ambient experience, or a more focused documentary experience. The shift from ambience to thematic documentary requires three modifications to the core system: a larger and more diverse database of shots, a more complicated taxonomy of metadata tags, and a more sophisticated overlay of sequencing rules to work the tags and the shots. The underlying system logic, however, remains the same in both cases. This ability to share foundational structure is an indication that there is no hard boundary between computational ambient art and computational literature. A further indication is the role of metadata and tagging within the sequencing process. The system’s logic is driven by text data—the content metadata.

¹I have borrowed the term from my colleague William Uricchio’s “Open Documentary Lab” at MIT, *Open Doc Lab*, opendoclab.mit.edu.

The metadata tags reflect the content of each shot. The sequencing of the metadata text by the system can be seen as the sequencing of words into a poem-like structure. Because of this, the visual sequences are themselves poem-like—relying on iteration and patterned variation to build coherent semantic flow. If “code” and algorithmic logic is the “grammar” of electronic literature, a computational system that supports both ambient works and more traditional forms is in fact a form of electronic literature itself.

Acknowledgments

This research program is supported by the Social Science and Humanities Research Council of Canada (SSHRC).

References

- Andrews, Jim (n.d.), *dbCinema*, www.vispo.com/dbcinema/index.htm (accessed December 27, 2016).
- Baldwin, Sandy (2006), “Goo/The Lincolnshire Poacher,” [Video] *Hyperrhiz 02: Gallery: Winter 2006*, [dx.doi.org/10.20415/hyp/002.g02](https://doi.org/10.20415/hyp/002.g02).
- Bizzocchi, Jim (2007), “Games and Narrative: An Analytical Framework,” *Loading: the Journal of the Canadian Game Studies Association* 1 (1): 5–10.
- Bizzocchi, Jim (2008), “The Aesthetics of the Ambient Video Experience,” *Fibreculture Journal* 11, www.eleven.fibreculturejournal.org/fcj-068-the-aesthetics-of-the-ambient-video-experience/.
- Bizzocchi, Jim et al. (2011), “Games, Narrative, and the Design of Interface,” *International Journal of Arts and Technology*, Special Issue on: “Interactive Experiences in Multimedia and Augmented Environments,” Teresa Romão and Nuno Correia (eds.), 4 (4): 260–77.
- Bizzocchi, Jim et al. (2014), “The Role of Micronarrative in the Design and Experience of Digital Games,” *DiGRA '13: Proceedings of the 2013 DiGRA International Conference: DeFragging Game Studies*, 161–97, DiGRA, www.digra.org/digital-library/.
- Eigenfeldt, Arne et al. (2015), “Collaborative Composition with Creative Systems: Reflections on the First Musebot Ensemble,” *Proceedings of the Sixth International Conference on Computational Creativity*, Park City, Utah, June 29–July 2, 2015, 134–43 Provo, UT: Brigham Young University Press.
- “ELO History” (n.d.), Electronic Literature Organization, www.eliterature.org/elo-history/. Accessed December 27, 2016.
- Eno, Brian (1978), “*Music for Airports*” [Album liner notes accompanying CD], PVC 7908 (AMB 001), *The Frame*, Shaw Cable.
- Galanter, Philip, (2003), “What is Generative Art? Complexity Theory as a Context for Art Theory,” *GA2003–6th Generative Art Conference*, www.philipgalanter.com/downloads/ga2003_paper.pdf.

- Grigar, Dene (2014), [Personal interview], September 29, 2014.
- Gunning, Tom (1986), "Cinema of Attractions: Early Film, its Spectators and the Avant-Garde," *Wide Angle* 8 (3/4): 63–70.
- Hayles, N. Katherine (2007), "Electronic Literature: What is it?," v1.0, January 2007, Electronic Literature Organization, www.eliterature.org/pad/elp.html.
- Higgins, Dick (2001), "Intermedia," *Leonardo* 34 (1), reprint of the original essays 1966 and 1981.
- Jenkins, Henry (2004), "Game Design as Narrative Architecture," in Noah Wardrip-Fruin and Pat Harrigan (eds.), *First Person: New Media as Story, Performance, Game*, 118–19, Cambridge, MA: The MIT Press.
- Newby, Kenneth (2015), Workshop on generative art, Simon Fraser University, March 10, 2015.
- ReCycle* (2010), [Film] Dir. Jim Bizzocchi; Glen Crawford (cinematography).
- Rockface* (2007), [Film] Dir. Jim Bizzocchi; Glen Crawford (cinematography).
- Seasons II* (2016), [Artistic collaboration] Jim Bizzocchi, Arne Eigenfeldt, Philippe Pasquier, and Miles Thorogood, ELO2016: Electronic Literature Organization Gallery installation, June 10–12, 2016, Victoria, BC.
- Stefans, Brian Kim (2000), "The Dreamlife of Letters," *Electronic Literature Collection*, Vol. 1, 2006, www.collection.eliterature.org/1/works/stefans-the_dreamlife_of_letters/dreamlife_index.html.
- Thorogood, Miles, and Philippe Pasquier (2013), "Computationally Generated Soundscapes with Audio Metaphor," *Proceedings of the Fourth International Conference on Computational Creativity*, Sydney, 256–60, <http://www.computationalcreativity.net/iccc2013/download/ICCC2013-Proceedings.pdf/>.
- "What is E-Lit?," Electronic Literature Organization, www.eliterature.org/what-is-e-lit/, accessed December 27, 2016.
- Zimmerman, Eric (2004), "Narrative, Interactivity, Play, and Games: Four Naughty Concepts in Need of Discipline," in N. Wardrip-Fruin and P. Harrigan (eds.), *First Person: New Media as Story, Performance, and Game*, 154–5, Cambridge, MA: The MIT Press.