

Re-moving Flat Ontologies: Mobile Locative Tagging and *Ars Combinatoria* in the *Hollins Community Project*

Jen E. Boyle
Coastal Carolina University
jboyle@coastal.edu

ABSTRACT

This paper reconsiders the relationship between historical time, embodied time, and locative media. The example for this paper is the second phase of *The Hollins Community Project*, a locative new media installation that takes place on a trail used by former slaves of Hollins University, Virginia (USA) during the nineteenth century. The project mixes historical material with *in situ* virtual narratives and embodied interactions within the space to experiment with the affective and distributed aspects of narrative. An earlier phase of this project imagined the exchanges between the physical and virtual interface as a version of a memory theatre. A tagging function has since been included in the interface to explore further the temporal intensities that form up around affect and incipient narrative. *Ars combinatoria*, an early modern model of “tagging” (parataxic assemblage, process, and affective presence) offers a productive comparison with contemporary spatial ontologies of tagging. The paper argues for a broadened discussion of the significance of temporal affect in locative media. This work also addresses the potential in mixing historical and contemporary approaches to locative new media.

Keywords

locative media, tagging, narrative, affect, time, history, embodiment

1. INTRODUCTION

This paper explores a second phase of the new media installation, *The Hollins Community Project* [1]. *The Hollins Community Project* is a locative media installation that explores embodiment, affect, and distributed authorship in creating narratives of place. The installation occurs in a borderspace located between Hollins University, the first chartered women’s college in southwestern Virginia, and “The Hollins Community,” a community established by African American slaves brought to Hollins in the 1800s. The project combines historical narratives and artifacts, *in situ* virtual narratives, and movement within the space to experiment with the affective and distributed aspects of narrative. The interface for the installation, a new software tool called PlaceMark© (a Tuple space “virtual kiosk”) allows for collaborative, mobile constructions of narrative [2]. Tuple space is a virtual environment that allows for the sharing of data and text without a shared physical memory between computing devices. Tuple space relies on associative memory rather than physical addresses, assigning descriptors that identify the content and data type of entries in the space. A crucial aspect to the Tuple interface is how it allows participants to post data entries on physical location and point in time alongside narrative observations while moving within the physical space of the trail. Intermingled in the Tuple

space with the *in situ* shared and individual observations of the trail space are historical materials associated with the trail’s history – artifacts, oral histories, and narrative fragments reproduced from Ethel Morgan Smith’s *From Whence Cometh My Help: the African American Community at Hollins College*. [3]

In each session of the installation, the participants meet at the edge of a borderspace located on a trail between Hollins University and the Hollins Community. Each participant is equipped with a laptop and a GPS device, and shown how to use PlaceMark©, the Tuple space interface. Within the interface, there are two tabbed screens. The first is “New Entry,” where participants record their textual observations and experiences as they move about the space of the trail. They can also add time/date and location stamps within their entries, which draw from the information retrieved by the GPS device: a time stamp consists of the date and time of day, and a location stamp records global coordinates in degrees and minutes. The participants receive no prompts as to what should be included in their observations, or what spaces they should explore. Interspersed with the entries of participants are the historical artifacts and fragments. Hence the content of the entries is quite diverse. Below are some examples of entries submitted during one session (individual entries are separated by a space):

There are poems on the trees in braille.<37°21.4748’N, 079°56.3092’W<Time:2008/03/14 13:52:01>

A newspaper at the previous location read beware celebrity endorsements," I could have removed the leaves from this document to see how old the paper was (or is) but I did not want to disturb the paper or the space.<Time: 2008/03/14 13:54:24><Longitude: 372"1.5029 N, Latitude: 07956.3240 W>

Where is the braille on the tree?

After Emancipation, Hollins Institute (as the college was then known), unlike most of the agricultural South, quickly reestablished a steady supply of labor based on new and continuing residents of the Oldfield settlement. Within a decade, Hollins came to occupy a monopsony position with respect to its labor. While there is no record in the ledgers of payment to any Black worker from 1857 to 1865, most of the female married servants likely remained in the Oldfield community through the Civil War.

Participants anonymously publish their entries to the Tuple space. While participants are still in the field, they can view all submitted entries and change the order of the entries under the “Organize Entries” screen. When a participant adds an entry or changes the order of the entries, the change is shared with all participants. The

“Organize Entry” screen is therefore continuously evolving while the group is out in the field. The actions of participants amid their discursive encounters with each other mirror the formal properties of the Tuple space. “Read,” “write,” and “take” are the algorithms that allow participants to work with the data and text within the “virtual kiosk.”

The second phase of this project introduces a tagging function in the interface that allows participants to group, associate, and, loosely speaking, classify the range of experiences (narrative and affective) associated with their movements in and observations of the space. Individual participants create tags. The tags then “float” within the Tuple “kiosk” space so that they can be utilized by the participant group. The parameters of the tags are determined by participants in the group as well: single words, time or date stamps, historical artifacts, or entire phrases or passages can be tagged. For example in one session, an entry that described the remnants of a dwelling and fence included the tag <see> in the entry:

Among the fallen, wrecked and ruined. We both have that in <see> common.<Time: 2008/10/09 11:44:10>

Later in the session, <see> is used by one of the participants in response to an encounter with a member of the installation team who is videotaping the session:

<see> ok dude with camera...its just a little weird. why are they videotaping us?

In other instances, physical landmarks and topographical features were included in entries through the use of tags. <ridge> was used as a tag identifying where the participant was facing while writing after the word emerged in one of the historical texts:

Greed Ridge to Hollins College. See, at that time the highway wasn't built up. They had a straight shot from across the creek and could be right at the college. Then the people living out in the community used to do the laundry for the girls.

Right now, it has the hazy cast of anonymity. We're still just <ridge>strangers, wandering here.

The tagging component of this project is technologically very simple. But in the context of the Tuple space, and amid the historical and *in situ* narratives generated, the tagging environment highlights significant aspects to the emergence of a collective narrative of the space. In this sense, tagging becomes a trace of the combined affective and narrative associations that emerge *in situ*. Tagging thus serves as a kind of virtual map of the affective and temporal intensities that form up around textual events in the space.

2. EMBODIED AFFECT *IN SITU*

One of the key elements of the project in its earlier phase was the way in which it required that movement through the space was itself a principal activator for what was recalled and shared. An analogy was drawn between early modern memory theatre and the *Hollins Community Project* since both memory theatres and the project are premised on movement, embodied ritual and collection of artifacts, and memory or narrative recall [1]. Like a memory theater, the new media interface and spatial interactivity of the *Hollins Community Project* sets the embodied rituals of exploring a location alongside the construction of textual commentary and reflection. This interactive component to the project reveals how

movement through a given space is associated with memory and the construction of narratives of place.

Affect becomes a significant element in describing the kinds of emergences that surface within these *in situ* narratives. Between the movement through and the narratives created of the space are events that Brian Massumi refers to as moments where “qualification” (the production and interpretation of narrative) brushes up against the “intensity” of the embodied response to temporal and spatial experience. [4]

The virtual, collective Tuple space emerges via a feedback loop with the actual surfaces and spaces of the trail. Through these events, the participants experience the registers of place as *incipient narratives*. Incipience, in the context of this project, refers to the emergent properties of narrative as they become apparent *in situ* and give meaning to a given location or site. That is, rather than offering “hotspots” or pre-scripted texts and images that represent a place, this project connects participants with an experience of how embodied interaction with a place works in tandem with acts of reading and writing to construct the multiple stories and meanings of a site. The incipient quality of these narratives surfaces at the intersection of the intensive interactive encounters with objects and artifacts on the trail, and the conceptual and narrative processing of these encounters.

Tagging within the project creates another framework to understand the relationship between embodied experience and the construction of narrative. The mixing of movement, *in situ* observations, and historical texts offers an experiential environment that mirrors how place narratives emerge. The tagging function creates a map of the semantics of temporal and spatial registers amid interactions between participants, and how these registers feed back into the collective narrative as it emerges within the space.

In particular, tagging appears as a marker for temporal affect. That is, the tags are often employed as markers for time at both the affective and conceptual levels. For example, in the case of the <ridge> tag, this word emerges initially as a description of a historical place, as a marker for historical time within a narrative fragment. However, when the word is picked up as a tag by the installation participants, it takes shape as a category connoting embodied interaction with spaces along the trail that evoke associations with the earlier historical text. Similarly, the tag <see> becomes a kind of perceptual caesura in the entries – a gesture connected to an embodied experience with a physical object or space mentioned in the historical texts. In the majority of cases, the tags are used not solely for conceptual classification, but as a means for mapping embodied moments that appear to participants to be linked to earlier textual or historical events.

This use of tagging in the installation pushes the use of “folksonomy” (collective taxonomizing) into the space of the performative. Like a theatrical performance that attempts to re-enliven the largely invisible postures, gestures, and nuanced movements that can transform a written script, tagging within the Tuple environment of the *Hollins Community Project* provides a map of where affective time brushes up against conceptual time. In this sense, the various associative links that are created in the environment are not annotations or digressions that feed back into a stable narrative of the space, but a loose and emergent tracing of the crossing of historical time, embodied time, and the discursive

encounters between participants as they create a collective narrative.

3. TAGGING ONTOLOGY

The semantics of ontology within information science relies on the possibility of categorization – of the naming of categories of association. Within semantic ontology, shared conceptualizations are not only needed to define a “world” or domain, they are required to mirror in some way actual real world processes or behaviors. [5,6] The rhetoric of semantic ontology does incorporate temporal relations – “events,” for example. However, even these categories often find expression within models that are heavily weighted toward spatial representation.

Sara Ahmed recently has taken up the strong emphasis on spatial *orientation* in western ontology and phenomenology. She asks the question, What does it mean to be oriented? –toward objects, others, models. Ahmed invokes the phenomenology of Merleau-Ponty to re-pose this question in such a way that orientation does not begin from an unquestioned space of “thereness” (in Heidegger’s sense) that must orient itself around other categories of objectness, but as *in situ* embodied temporal and spatial events:

Spatial forms or distance are not so much relations between different points in objective space as they are relations between these points and a central perspective – our body. [7]

“Our body” here is not meant simply as the limits of our corporeality, but as the “here” of the body (affectively, physically, imaginistically) and the “where” of the body as a place of both “dwelling” (in time) and the unfolding of multiple potentialities of embodied experience (past, present, and future).

We can think of tagging within the *Hollins Community* installation as a further mapping of “dwelling” in Ahmed’s sense of the term. Rather than lines of thought or movement in either the space of the trail or the space of the text, the mixing of tags and narratives produces assemblages of bodily experience, historical and *in situ* texts, and the algorithms of the interface. These emerge as an “assemblage [that] works from that basic principle of parataxical arrangement and opposes the ordered assembly of narrative.” [8]

The parataxics of assemblage creates associations and linkages between elements that at first glance may not seem to have any logical connection; but it also assembles affective and conceptual events as part of a narrative encounter. Jeff Rice argues that “when writing becomes tagging, associative combinations become rhetorical principles.” [8] Yet, the rhetoric of tagging in the *Hollins Community Project* is a rhetoric that imbricates embodied experience, virtual and actual space, and written narrative. These assemblages raise interesting questions about how locative media environments can re-animate a performative context for historical time and embodied temporality. The performative context for tagging in the *Hollins Community Project* is closer to the early modern figure of *Ars Combinatoria* than more contemporary models of information ontologies.

4. TAGGING AS ARS COMBINATORIA

The extended analogy offered for the earlier phase of the *Hollins Community Project* was the early modern memory theatre. The premise behind memory theaters was that ambulatory movement through a given location, in conjunction with access to icons,

textual fragments, and images associated with significant historical and mythical texts, facilitated memory recall. Moreover, the comparison between the historical memory theater and digital, locative new media offers a comparative framework for re-imagining how we think about embodied, spatialized meaning in connection with social and historical narratives and practices.

The early modern memory theater points to a model of memory that is intimately connected to the relationship between movement in space and the interaction with and production of texts. This model can serve as an important comparison with the present moment. As Wendy Chun has observed, within the digital we tend to privilege as “new” a concept of memory that conflates the physical, the virtual, and the idea of storage. Such a conflation evades those aspects of memory within digital or locative media environments that remain ephemeral, embodied, and in productive tension with the virtual interface.

To extend this analogy, and the further productive comparisons it may offer, we can consider the tagging aspect of the *Hollins Community Project* in light of the *Ars Combinatoria*, a figure contemporaneous with the early modern memory theatre. The *Ars Combinatoria* was premised on the idea that complex knowledge systems could be understood as assemblages of smaller, simpler concepts. The *Ars* was meant to be inventive, to the extent that parataxical arrangement could take place across a large spectrum of competing modes of knowledge. Beginning with the elements (fire, water, air, earth), the seventeenth-century philosopher G.W. Leibniz imagined a generative system that demonstrated the power of associative links between computational algorithms and historical and philosophical meaning making.

Leibniz produced his *De arte combinatoria* in 1666 as an attempt at a complete system for describing literally how knowledge could be classed and organized conceptually. [9] Leibniz believed that all knowledge could be classed down into key associative categories, and then exhaustively re-combined to offer up new reproductions of knowledge. Leibniz’s system was meant as a semantic ontology – as a system of abstract categories and properties that could be re-combined to produce new knowledge, but which was also able to serve as a representational model of the real world.

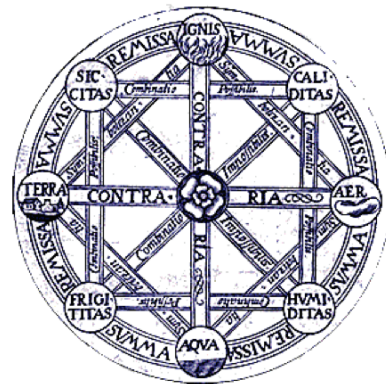


Figure 1: Leibniz’s Artes Combinatoria

His system – highly computational in form – also carried with it traces of the much earlier work of Ramon Lull and his combinatory system, whose work Leibniz was responding to in the 1666 *De arte*. Lull’s work was significant for its inclusion of the elements of Rosicrucian philosophy; in particular, the

emphasis in Rosicrucian thought on the mystical and affective properties of repetitive ritual. Lull's system argued not only for the importance of an ontological system for the classification of modes of knowledge and experience, but for the kinds of affects that emerged when the embodied rituals of the *Ars* were performed over and over again. Physical objects, employed like iconic props or game pieces, were used in conjunction with a graphic computational grid. The objects would be moved and re-moved to enact different kinds of combinatory possibilities in performing new possible connections between different models of knowledge and meaning.

Such affects were experienced at the bodily level, feeding back into the system as a whole. But they also pointed to the potential to move across competing temporal registers. That is, spatial rituals in the present, performed through operations within a "tagging" system that invoked past histories or knowledge, could potentially reproduce the "presence" of those earlier events. The power of Lull's system was in its retention of the hermetic allusions to "presence." That is, Lull imagined a system that retained the properties of embodied dwelling – across temporalities in the past and present – in constructing a system of representative abstractions.

Contemporary thoughts on tagging have emphasized how tagging systems are parataxic, allowing for new categories, taxonomies, and associative links. As Rice has argued, the possibilities for such systems extend well beyond databases that are constructed out of user-oriented definitions. Indeed, there is potential for re-imagining how social and physical spaces can be mapped as new types of discursive encounters through tagging. In the context of urban space, Rice identifies the potential for tagging to re-appropriate old "referential" "spaces" within the "ruins" of decaying cities. Tagging thus becomes a virtual, social space that makes possible the naming of new kinds of encounters between physical space, social collectives, and marginalized desires.

In addition to the significance of spatial classification within tagging, we can also imagine how different models of temporality might be mapped, re-envisioned, and re-encountered. Tagging within the *Hollins Community Project* reveals how conceptual time and affective time can become "memory maps" within a tagging ontology. The performative element that emerges around this also points to how encounters with historical spaces might be re-animated.

Within the project, narratives are layered and compounded in an ambient environment. Tags are elements that emerge and become affective attractors within the space of the trail. The tagging

environment also allows for a feedback loop between the conceptual and textual artifacts associated with the history of the space, and the embodied and social interactions within the space. That is, tagging creates an assemblage of historical and affective registers. Tags serve not as referential signifiers that connect back to a stable narrative, but as conductors between the affective experiences of participants and historical markers. Like the *Ars Combinatoria*, tagging within the overall context of the *Hollins Community Project* emerges at the threshold of narrative, affective presence and the historical as performative.

5. REFERENCES

- [1] Boyle, J. and Crandell, A. 2009. [The Hollins Community Project: New Media, Narrative and Affective History](#). *Wi: Journal of Mobile Media* (Spring 2009), <<http://wi.hexagram.ca/?p=52>>
- [2] The planning for this project was initiated early in 2006 as part of a collaborative National Science Foundation proposal that linked the resources and faculty of the Center for Human-Computer Interaction at Virginia Polytechnic and State University (Virginia Tech) with a much smaller women's university, known for its unique arts and humanities programs.
- [3] Smith, E.M. 2000. *From Whence Cometh My Help: The African American Community of Hollins College*. University of Missouri, Columbia.
- [4] Massumi, B. 2002. *Parables for the Virtual: Movement, Affect, Sensation*. Duke University, Durham, p. 25.
- [5] Berners-Lee, T., Hendler, J., & Lassila, O. 2001. *The Semantic Web*. *Scientific American* (May 2001), <<http://www.sciam.com/article.cfm?articleID=00048144-10D2-1C70-84A9809EC588EF21>>
- [6] Gruber, T. 1993. *A Translation Approach to Portable Ontology Specifications*. *Knowledge Acquisition*, 5(2), 199-220. <<http://tomgruber.org/writing/ontolingua-kaj-1993.htm>>
- [7] Ahmed, S. 2006. *Queer Phenomenology: Orientations, Objects, Others*. Duke University, Durham, p. 8.
- [8] Rice, J. 2005. [21st Century Graffiti](#). In *1000 Days of Theory*, A. Kroker and M. Kroker, eds, <www.ctheory.net/articles.aspx?id=484>
- [9] Leibniz, G.W. 1666. *Dissertatio de arte combinatorial*.