



AUGMENTING AFFECT: INTERACTION, MATERIALITY AND MIMETIC COMMUNICATION IN AUGMENTED REALITY MOVABLE BOOKS

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"[...] so the child composes into the picture,"
-A glimpse into the world of children's books, Walter Benjamin (1926)

Bloom spaces are everywhere. You can start anywhere. The etching of the refrain can show up in the mundane and the material process of solving problems. The hinge between the actual and the potential can pop up as an object out of place, the sense of an absent-presence, a road block, a sticking point, or a barely audible whispering that something's up in the neighborhood. -"Afterword: Worlding refrains," Kathleen Stewart (2010)

Introduction

While many have predicted the death of the book in the digital age, such a demise has yet to occur. Instead, we see inventive new fusions of the digital and physical, as with interactive Augmented Reality (AR) books. Walter Benjamin's essay "A Glimpse into the World of Children's Books" can be seen as a prescient description of the interactive AR reader in the postdigital age (Holloway-Attaway & Rouse, 2018). Benjamin describes the alchemical, relationship between image, text, story, and the child reader who "overcomes the illusory

barrier of the book's surface and passes through colored textures and brightly painted partitions to enter a stage on which the fairy tale lives" (p. 226). This performative and affective relationship between the reader and multi-sensory text casts the reader as a "theatre director" who repeatedly pores over the pictures of the book, until she knows them "like [her] own pockets," marking out a "personal place" for herself (p. 227). This kind of role-playing, where the reader and text come together as allies in deep communication may be characterized as that which Anna Gibbs calls a kind of a-subjective 'mimetic communication' (Gibbs, 2010). Not limited to human form, or even animal, this non-human kind of layered, cross-mimicry (reader as receptive performer of book content/book as performer of reader and reader's desires) creates a state of deep emotional affect, beyond pure human cognition or understanding. For Gibbs, this kind of intra-active 'mimesis' that passes between and among bodies and media (like books, but not limited to them alone) is founded on "corporally based forms of imitation, both voluntary and involuntary and upon which literary representation depends" (p. 186). Here the book may live as the reader, and the reader as the book. Surpassing a state of emotional connection, where a reader feels stimulated to feel something by the book's content, instead the reader and book can be viscerally bonded in a more complex "plurality of domains" (p. 187). This state, Gibbs claims, may allow us to see beyond subject/object, reader/book intra-subjectivities and offers new sites for new theoretical considerations: "[R]ather than privileging one view over another, the task of [affect] theory may then be to know through which optic it is most productive to look at any given moment. Or—perhaps more difficult—to learn how to oscillate between these views" (p. 187).



This state of oscillation is at the heart of our work in *Simmer*, our Augmented Reality (AR) artist book that uses a host of material and visceral affordances to engage readers in an affective relationship with its readership. Beyond creating a state of emotional connection with the characters and situations we include in the media (technical and material), in *Simmer* we work to create an experience that shifts 'optical' perspectives and keeps the reader/body and medial/body in oscillation in a shared and cooperative performance space. This is an organic space where something might grow--a potentiality for connection, if it can be activated. Kathleen Stewart defines this as a 'bloom space,' an affect-filled site full of now and future possibilities, a promissory note" (p. 402) and a world where one sits poised for something to happen, or hopes that it won't. For us, this is a site of simmering worlding, a place where connections form between a host of

bodies and materialities. In this space of promise, *Simmer* draws on a long tradition of readers doing other things with books that spans from medieval manuscripte to the contemporary artist book tradition (Drucker, 2004). These flexible and dynamic forms include hybrid digital/physical books that push the boundaries between book as text, object, game, theatre, and technology. Extending the analysis of the first AR books (Billinghurst et al., 2001) and contemporary handwritten inscriptions in e-books (Hamilton et al., 2019), in this reflection, we foreground our experience as designers creating/exhibiting *Simmer* as a kind of intra-subjective bloom space for initiating mimetic connections between

Padgett. Working as a form of intra-textual and intra-subjective negotiation *Simmer* explores and expands John Cheever's classic short story, "The Swimmer" (1964) and the 1968 surreal dramatic film (*The Swimmer*, Dir. Perry) based on the Cheever story. While Cheever's landmark story and the Perry film craft Cheever's landmark portrayal of its narcissistic protagonist Ned Merrill, comparably Ned's wife (Lucinda) and four unnamed daughters are left unexplored. The women serve only as a backdrop for Ned's dark reflections on 1960's suburban marriage and family, and they are literally streamed through his consciousness and memory in a series of surreal flashbacks. Although this narrow focus on Ned's experience is arguably

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readers and media. As such we deepen the possibilities for emotional connections to book technologies and mix forms, genres, history, and agency as we explore the complex, negotiated, affective relationships between book, text, technology, and reader in the postdigital age.

Simmer: Designing and Augmenting Affective Reading Experiences

Simmer (2019), is an entirely handmade two-sided artist book and AR (augmented reality) application created in collaboration with composer Brendan

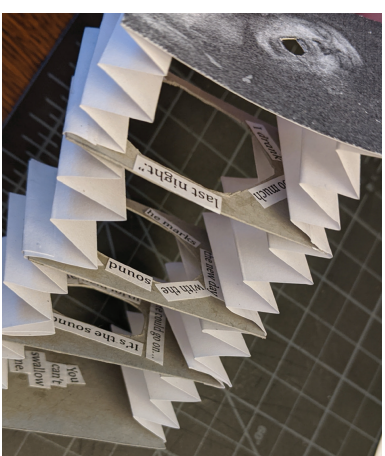
appropriate for Cheever's dark, psychological text, the absence of women and female perspectives also serve as an invitation to explore the ways in which the emotional violence and pain wrought by a dominating and narcissistic husband and father (Ned) resonate through the family. Filtered through the male gaze in the book and film, the women are silenced and frozen, and in our work we enervate and animate them through a process of mimetic synchrony. That is we communicate their presence through the layers of storied materials and technical affordances: through 2D linear maps and 3D domestic (Dollhouse) space, through paper doll representations, musical and audio overlays,

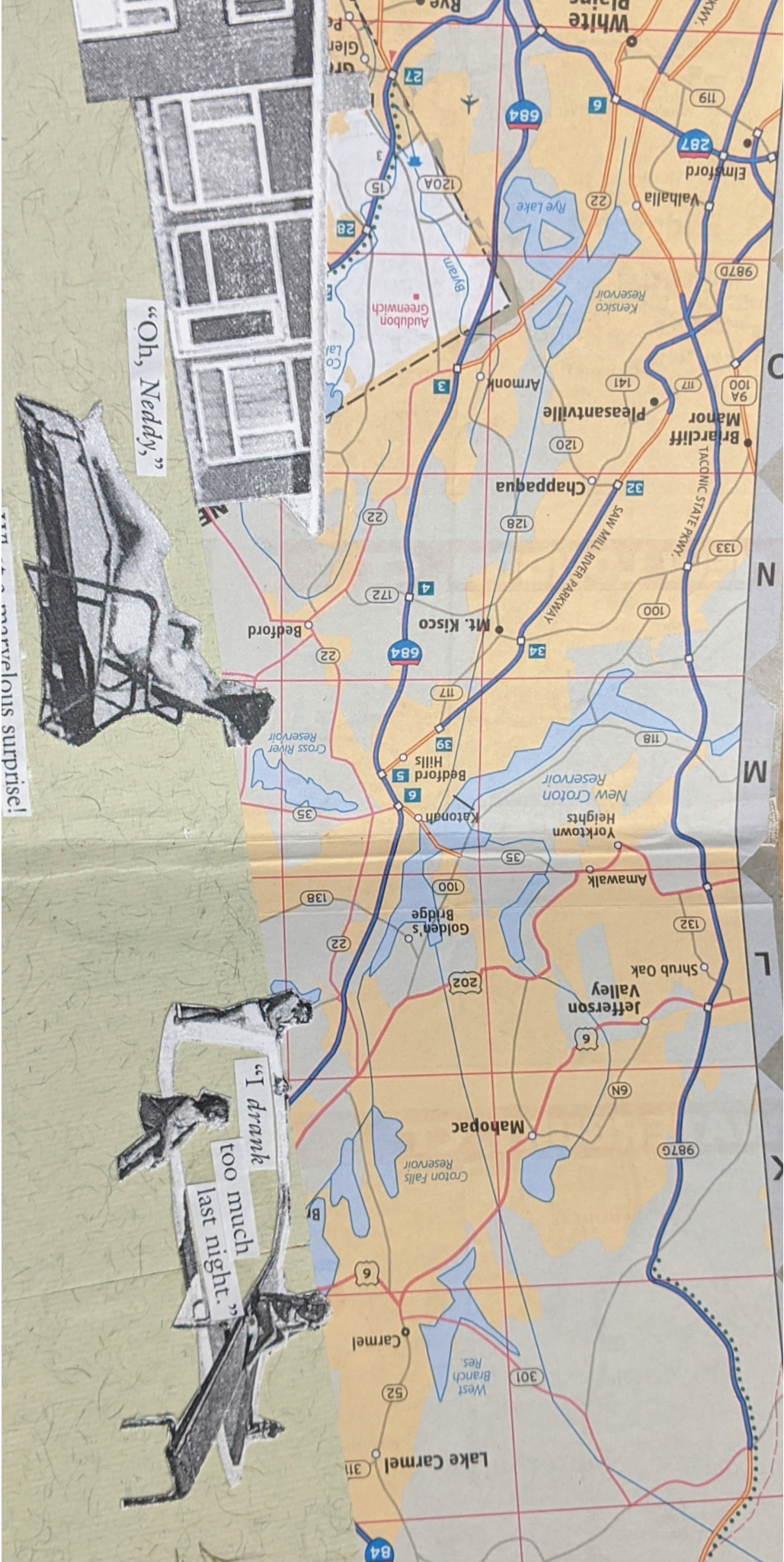


and paper engineered objects, like flip books and tunnel books. Our book papers are textured, asking to be touched, the audio is sometimes whispered and confessional, meant to be overheard by a complicit listener through a mobile phone held close to the ear, and the book is then a place of invitation and exploration for the reader whom we want to engage in a multisensory 'reading' experience. In sum, *Simmer's* malleable and dynamic textual forms, moving between codex structure and many other readerly/writerly configurations (Barthes, 1974), attempts to capture a host of voices and affective resonances to actively engage the reader through its varied material and immaterial (digital, psychological, emotional, acoustic, musical) surfaces. More than a re-telling of the story in an AR 'pop-up' book form, our aim is to create disruptive surfaces that communicate human emotional complexity by the multiplication for potential encounters.

Simmer opens as a linear accordion fold book or panorama that presents a re-telling of Ned's story from his perspective based most directly on the

inspirational materials from the original Cheever story and the film. The long, narrow surface of the panorama, both a psychological and a physical map of Westchester County in upstate New York (where the Cheever novel and film were set) reflects Ned's long-winded, narcissistic musings connected to his suburban neighborhood, so central to his feelings of dissonance and despair. Cut-up quotations from Cheever's original text appear across the full panorama. Reflective of experimental Dadaist poetry, meant to *make something new* from the deformation of an old text, the fragments are meant to haunt the *Simmer* text and show its *almost* relation to the source materials. The cut-ups are woven into the panorama imagery, often filling the empty swimming pools that dot the landscape and which are central to the original social landscape of the novel and film, a vehicle for Ned's swimming through the neighborhood. An audio that tracks off of the panorama images presents radio-play style dialogue and atmospheric music from Ned's fantasy world, where other characters

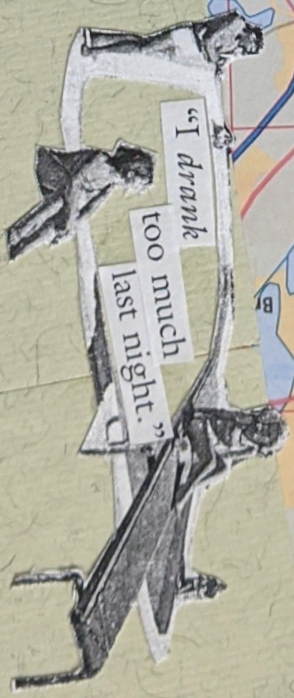




"Oh, Neddy,"

...a marvelous surprise!

"I drank too much last night."



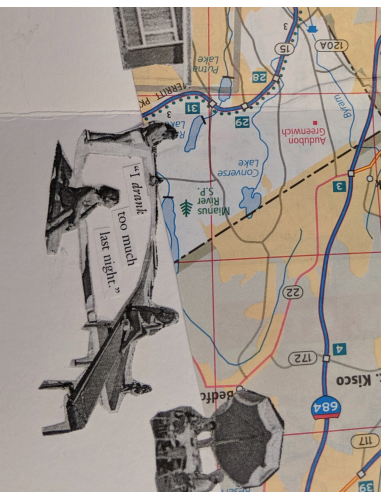


(seemingly) revere him, reflecting him as larger than life, legendary, and god-like. To show dynamic movement, even on the linear side of the book, collage elements shift as the reader moves across, and so the panorama is comprised of more naturalistic representations at the left, but then they transition to more surreal representations on the right. Even the dialogue, activated by AR trigger images from a mobile phone, shifts as Ned's fawning friends eventually sound more critical and threatening, hinting they might know and reveal his dark secrets. The *cifill* bossa nova soundtrack becomes more pensive as the reader progresses and to the right. Visible across the panorama, a red thread is sewn through the book, drawing suggestive connections between houses and people in the Westchester county suburb, all lounging in a seemingly eternal cocktail hour, poolside.

But even this linear connection will eventually reveal itself as an illusion, as it crosses the book over to the other side and reveals connections to

Lucinda's domestic story space, unknown in the Cheever work. The red thread, then, also makes more abstract metaphorical connections between linear and non-linear writing forms, and this dual meaning is revealed as the accordion book is turned inside-out and transformed into a dollhouse structure. As seen in the dollhouse, the red thread offers a tenuous connection between the two sides of the book, the two sides of the story. The non-linear narrative of the domestic house space, Lucinda's world, is pieced together through the reader's exploration of its objects and by manipulating a variety of traditional pop-up and movable elements (paper dolls, animated flip book, miniature book, tunnel book, flaps, a fold-out map painted with thermo-chromic paint that responds to heat, in our case, to breath and to touch, revealing hidden text when activated by the reader). These interactions are often hidden, waiting for the reader to uncover, and they present fragments of narrative to piece together, with the book acting as a form of secret keeper, and secret giver. As the book-performance escalates through reader interaction, the house is populated with a variety of historical resonances from the long history of the book through this creation of objects for the reader to discover (e.g. tunnel books, flip books). Each of these elements is also tracked by the AR app to reveal dialogue and music. Through the interaction with objects in the domestic space, we hear Lucinda's voice for the first time, describing her experience in first-person, offered as a type of confessional audio diary. Miniature LPs also play musical themes for several of the female characters (Lucinda, her mother, Ned's mistress). These themes are created as deconstructed and introspective inversions of the cheery music from the pool party side of the book, like Ned's story, a dark companion for Lucinda.

The red thread sewn through the other side of the book finally emerges in the house through Lucinda's writing desk, ending as the thread found in the hand-sewn binding of a miniature book of poetry. The poetry is written by Emily Dickinson, calling back to another experimental writer, but also claimed as her own by Lucinda who tells of her kinship with Dickinson, with another secret 19th century storyteller. Here once again, the red thread reveals a connection to two different worlds and histories, drawn together through book matters to show their similarities, but also to refute the newness of this form of moveable AR book, as well as this kind of *hidden* story. As Lucinda's experience is revealed, we learn the devastating impact that Ned's narcissism has had on her and the family, especially the girls. These four daughters are represented by paper dolls and voiced by restored audio recordings of Thomas Edison's mechanical dolls, a (failed) experiment in technical innovation



for material storytelling that bypassed the simplicity of a printed page but refined simplistic notions of woman, machine, and girlhood (Wood 2003). Following instructions from Lucinda, the reader is invited to interact with these daughters as dolls, flat, and in the end, still voiceless. This action brings the reader into a performative complicity with Lucinda and Ned, as both parents play out the pain of their relationship by objectifying their children, a sad point of intersection for the otherwise distant couple. This aspect of the storytelling pulls the reader into the story in a defamiliarizing way, to invite reflection.

Conclusion

In the introduction of Lisa Gitelman's book *Paper Knowledge: Toward a Media History of Document*, Gitelman reveals her interest in the history of the document, as both object and as evidence, as personalized knowledge. She opens by describing a

contemporary death certificate from New York City. She first describes the front of the form and then reverses it, moving to a description of the back, which is seemingly left blank, but in truth revealing evidence to be discovered if you come closer:

The back of each death certificate is blank – or it would be, except for a list of security features to look for should you wish to reassure yourself that the truth-claiming document you hold is genuine. The seals and borders have raised intaglio printing. (Run your finger over them to check.) The bottom of the document contains a microprinted legend. (Hold the document very close or use a magnifier.) The paper has an elaborate watermark. (Hold it up at arm's length with a light behind it.) And there's a logo printed with thermochromic ink. (Warm it by rubbing your finger over it quickly to make sure it will change color.) One doesn't so much *read* a death certificate, it would seem, as perform callisthenics with one, holding it out and then holding it close, flipping it one way and finger-ling it another. (p. ix)

In our book, we too want to create an embodied reading experience that brings the reader and media together, to *document* an experience that may at first seem blank and silent, but which can be discovered and communicated through intimate (mimetic) connection. In this way, even in death (the inspirational Cheever text), hyper-personal experiences can be resurrected through sensory and corporeal engagement with technical and material affordances to extend (only) one emotional narrative history into many. To touch is to stimulate a process of plurality that moves beyond 'pure' abstract reading and into a reader's embodied registers of reception. In this way within *Swimmer*, we address the theme of the ICIDS 2019 exhibition, "The

Expression of Emotion in Humans and Technology," navigating material, technical, and emotional reading to illustrate the necessary connections among them—and beyond.

What *swimmers* also bubbles up, and our mixed media work invites the reader to explore the raw edges of storytelling and humanity within us all, using the many affordances found in the multiple histories of the book.

References

- Barthes, R. (1974). *S/Z* (R. Miller, Trans.). Hill and Wang.
- Benjamin, W. (1926). A glimpse into the world of children's books. In M. W. Jennings, B. Doherty, T.Y. Levin (Eds.), (2008) *The work of art in the age of its technological reproducibility and other writings on media*. Belknap Press.
- Benjamin, W. (1928) "Arrested Auditor of Books." In M. W. Jennings, B. Doherty, T.Y. Levin (Eds.), (2008) *The work of art in the age of its technological reproducibility and other writings on media*. Belknap Press.
- Billinghurst, M., Kato, H., Poupayev, I. (2001). The magicBook: transitional AR interface. *Computers & Graphics*, (25), 745-753.
- Bolter, J. D. (2011). *Writing space: Computers, hypertext, and the remediation of print* (2nd Ed.). Routledge.
- Cheever, J. (1964). The swimmer. *The New Yorker*. Conde Nast.
- Drucker, J. (2004). *The century of artists' books* (2nd Ed.). Granary Books.
- Gibbs, A. (2010). After affect: Sympathy, synchrony, and mimetic communication. In M. Gregg & G.J. Seigworth (Eds.), *The affect theory reader*. Duke University Press.
- Gitelman, L. (2014) *Paper knowledge: Toward a media history of documents*. Duke University Press.
- Hamilton, A. R., Hlal, D., Lane, D. S., Vadakkannarveetil, J., Milstein, D., Wolohan, P. M., Knewei, D. (2019) Inscriptions for Electronic Books. United States Patent No. 10,303,338 B2.
- Holloway-Attaway, L., Rouse, R. (2018) Designing postdigital curators: Establishing an interdisciplinary games and mixed reality cultural heritage network. In M. Ioannides, et. al. (Eds.), *Digital cultural heritage*, LNCS 10754, 162-173.
- Perry, F. (Director). (1968). *The Swimmer*. Horizon Pictures.
- Stewart, K. (2010) Afterword: Worlding refrains. In M. Gregg & G.J. Seigworth (Eds.), *The affect theory reader*. Duke University Press.

