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Circling back

Electronic literature and material feminism

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Occulus Rift Virtual reality headgear is usually donned for video gameplay – to provide superhuman strength and far-off adventures, to kill dragons or soldiers, or to explore fantastic places – not to hold teacups and faded family photographs and to tell domestic tales. But Canadian digital artist Caitlin Fisher challenges such expectations, and the explicitly gendered associations of games and virtual reality (VR), by using this very technology for new modes of feminist storytelling. Fisher's *Circle* (2012) is a work of augmented reality storytelling that embeds Quick Response (QR) bar codes onto analog objects, little domestic treasures passed down among four generations of women. You read this work by selecting, holding, and even fondling these analog objects before you scan them with a digital device (in some versions of the work, you use Occulus Rift and in others an iPad); this action elicits a digital connection that plays the multimedia and multimodal story files to present an augmented or virtual reality experience in storytelling. Fisher inserts the domestic stories of women onto the very things they supposedly touched and shared, and she invites her readers to read by touching. The result is an affective experience that is both deeply embodied and complexly digital.

This essay reads *Circle* as turning attention to the materiality and relationality of objects, animate and inanimate, in ways that promote reflection on the meaningful relationships between them. Specifically, I will show that Fisher's *Circle* presents objects (animate and inanimate) as existing, always, in relational networks of meaning. The objects in *Circle* not only represent symbolic and familial networks of interpersonal relationships but also actually operate in a digital network of programmed code, software, and hardware. Understood this way, with a focus on media specificity, the work promotes attention to the contexts through which matter generates meaning and invites interpretation. *Circle* encourages a focus on situatedness and positionality, which is a central facet of feminism (Andersen, 2015).[1] It does so not only through a narrative about women's stories and histories but also through an aesthetic that puts the reader in the position of selecting, handling, and interacting with things within a very specific (and programmed) network. This work of digital literature is about objects and operates through them. It thus provides an opportunity to explore object-oriented inquiry while also critiquing the gendered presumptions and ideological undercurrents of its contemporary manifestation in the philosophical movement known as object-oriented ontology (OOO). Inspired by Fisher's digital literature, I pursue literary criticism's central practice of close reading to show how digital literature provides

a platform from which to critique contemporary philosophical debates about materiality – the quality and characteristics of bodies (animate and inanimate) and the ways in which these things mean – in our digital age. Fusing literary criticism and feminist theory, I analyze *Circle* in order to argue that this work pursues aesthetics of "glitch" and "cute" in subversive ways that display and invite feminist practice and critique.

Material feminism

Materiality

"Material relationality" is a term most often associated with Bruno Latour's concept of actor-network theory (ANT), a way of understanding sociology "not as 'the science of the social,' but as the *tracings of associations*" (*Reassembling the Social*, 5, italics in original). This focus on associations and agents rather than actions and actors has inspired much recent interdisciplinary research that uses network theory to explore social and cultural situations. Latour's ANT has also helped to locate a growing awareness and critique of anthropocentrism, the default mode of centering all thinking and value around human beings. In a recent article titled "Agency at the Time of the Anthropocene," Latour writes, "To be a subject is not to act autonomously in front of an objective background, but *to share agency with other subjects that have also lost their autonomy*" (5, italics in original). Any sense of autonomy, individualism, and monadism is replaced by a focus on networked relations. This paradigmatic shift supports newfound attention to objects not just as part of an "objective background," a setting in which humans operate in the foreground, but as agents in and of themselves.

Object-oriented ontology (OOO) is a philosophical movement that emerges from and is inspired by the combination of Latour's ANT and Quentin Meillassoux's speculative realism.[2] OOO attempts to circumscribe, or downright reject, the historically central role of humans in ontology. Ian Bogost writes:

> Ontology is the philosophical study of existence. Object-oriented ontology ('OOO' for short) puts *things* at the center of this study. Its proponents contend that nothing has special status, but that everything exists equally – plumbers, cotton, bonobos, DVD players, and sandstone, for example.
>
> (blog post, italics in original, Bogost, 2009)[3]

Graham Harman, a leader in OOO, explains the intervention thusly: "The human/world relation is treated as extra special, different in kind from the relation of cotton and fire. This is the heritage that must be abandoned" (*Speculative Realism* 135). OOO asserts that real things exist distinctly from humans, and they can act distinctly from humans too. OOO challenges us to reconsider a philosophical tradition that is anthropocentric and to attempt to think, or rather, using the language of OOO, "to speculate" about objects without human subjects.

There is a lot to be excited about in OOO, specifically in its creative effort to retool traditional modes of thinking about objects through speculation and imaginative projection. What excites N. Katherine Hayles, she explains, is "the possibility that an object-oriented approach can be fleshed out through meticulous accounts of how nonhuman objects experience the world – or to put it in more general terms, the ways nonhuman objects have of being in the world" ("Speculative Aesthetics" 170) and the "insistence that objects resist us knowing them completely" (172). But, there is also a lot to be concerned about, and these concerns reverberate with central tenets of traditional feminist critique. Feminist theory argues for the importance of bodies as real, marked

matter that is always constituted by material histories and actual situated contexts. Feminism teaches us to be wary of attempts to devalue or ignore the very real socioeconomic, historical, and ideological contexts that sustain power relations and hierarchies. Applying such attention to OOO, we find, as Caroline Bassett writes,

> The problems arising with OOO, for critical feminism at least, is not the rocks and the grease, and the way in which many of these ontographic collections (Bogost 2012) overwhelmingly consist of objects traditionally "gendered masculine" (Wajcman 1991), but the way in which the priorities they insist upon render irrelevant a series of questions concerning "humans,," their relationships with each other and with technologies, and how each of these is articulated and mediated by the other.
>
> *("Not Now: Feminism, Technology, Postdigital" 142)*

By divorcing matter from materiality, physicality from embodiment, and flesh from gender, OOO posits the consideration of objects without the human. This act also includes stripping away the humane and humanistic from such inquiry. Such extractions are, as Bassett points out, and I agree, more about hiding or privileging certain priorities over others than about actually thinking outside of the anthropocentric box.

Hayles seems to detect an aspect of subterfuge in OOO, describing it as intentionally working to hide or "black box" its operations. She writes,

> The effect of encapsulating relations *within* objects, as Harman does, is to mask the system's dynamics and make it difficult to think about the dynamics at all. The black boxing of relations obliterates the specificity of how complex systems work.
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> *(Hayles, "Speculative Aesthetics" 176, emphasis added)*

The language of "black boxing" is relevant and instructive here because it comes from the world of computing. "Black box" describes a system or device that hides its operations from view. Think of the evolution of our laptops, from clunky computers whose screws and components were visible and thus able to be taken apart, to today's sleek MacBooks that hide internal components in smoothly brushed silver; as much art as tools, these machines present the computer as an aesthetically splendid black (or silver) box. The connection between OOO and computing is easy and necessary to make: easy because the name "object-oriented" is a type of computer programming, and necessary because the gendered-masculine associations of both inform each other. Though Hayles never uses the "f" word – "feminism" – in her discussion of OOO, her critique cuts that way. She takes Harman to task for presenting (even fetishizing) objects as thingy matter separate from specific contexts of materialism. Both Hayles and Bassett point out that OOO operates through black boxing, by hiding the gendered ideologies that undergird the operative theory. To address the gendered associations shared between OOO and computing, we now move to examine related efforts to employ feminist thinking to renovate object-oriented theory in ways that address gender politics – "the priorities" (to use Bassett's words) – that lurk beyond the supposed objectivity of OOO.

Feminism

Feminism holds that bodies matter, and material contexts affect experience; thus, that embodied, cultural contexts inform knowledge and value. In the age of "transcendental data," as Alan Liu calls the digital era, wherein information appears disembodied, feminist scholars have had to fight

hard and articulately to identify where and how materiality matters. Theorists like N. Katherine Hayles, Donna Haraway, Wendy Chun, Sadie Plant, and Anne Balsamo have shown that digital technologies are neither disembodied nor value-neutral but always situated in historical, political, and ideological contexts.[4] As our computing technologies get smaller and more sophisticated, and its black boxes ever-more inaccessible, we need to further refine our thinking about the relationship between animate and inanimate bodies as well as about the porous boundaries between the real and the virtual.

Developments in biotechnology, computing, and posthumanism have afforded new perspectives on materiality and the relationship between animate and inanimate objects. Indeed, what counts as human is a subject of debate in our posthuman world (Hayles, 2012).[5] In their introduction to the recent volume, *New Materialisms: Ontology, Agency, and Politics*, Diana Coole and Samantha Frost write, "new ways of thinking about living matter are radically and rapidly reconfiguring our material world – both empirically and conceptually" ("Introducing the New Materialisms" 24). Let me introduce the term "New Materialism" here. Coined by Manuel DeLanda and Rosi Braidotti independently in the late 1990s, it was used to describe efforts to cut across or "transverse" humanistic disciplines in order to update materialist thinking to consider not just objects, settings, and actions but also their interactions (Dolphijn and van der Tuin, 2012).[6] Karen Barad introduced the term "intra-actions" to stand "(in contrast to the usual 'interaction,' which presumes the prior existence of independent entities/relata)" and which suggests that "relata do not preexist relations; rather, relata-within-phenomona emerge through specific intra-actions" ("Posthuman Performativity" 133). For Barad, entities do not and cannot exist separately from their relations. In this sense, all entities are made of their relationships or *intra-actions*. This terminological shift from *interaction* to *intra-action* represents a larger paradigmatic one: a shift in perspective from entities to emergence. All action is recognized as situational and relational.

The need for new ways of understanding the relational quality of materiality is central to recent movements in feminist theory. Stacy Alaimo and Susan Hekman, editors of *Material Feminisms*, argue that feminist theory must engage with materialism and New Materialism in order to get beyond "the impasse caused by the contemporary linguistic turn to feminist thought" ("Introduction: Emerging Models of Materiality in Feminist Theory" 1). Moving to overturn the emphasis on discursivity promoted by Judith Butler and postmodern feminist theory, these recent thinkers bring feminism to bear on New Materialism and vice versa. In contrast to OOO's speculation about objects as abstract and extracted, even disinfected, feminist materialists pursue the messy and "the mangle" (Andrew Pickering's word for the complex arrangements of technologies, theories, practices, and people that constitute and produce science). They engage the "vicious porousity," Nancy Tuana's phrase for "a conceptual metaphor" that denotes "the rich interactions between beings through which subjects are constituted out of relationality" ("Viscous Porousity: Witnessing Katrina" 188). Such a focus disallows, or at least seriously complicates, OOO's investment in arguing for the agency of objects. In a mangle model of relations, practices, and activities, separating distinct actors becomes challenging, as does assigning agency to any one thing.

New Materialism and material feminism pursue the local and specific contexts of emergence. There are political ramifications of this type of focus, and this fact is embraced rather than avoided by its practitioners. Far from the conceptual and speculative philosophy of OOO, Coole and Frost explain, "materialism means practical, politically engaged social theory, devoted to the critical analysis of actual conditions of existence and their inherent inequality" (24–25). Understanding that material feminism examines the specificities of systems and events, we can finally turn to our tutor text – a work of digital literature that operates through a programmed network of analog and digital, human and nonhuman, agents to present an object-based and gendered narrative in

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a very specific configuration of technological relations. We turn to *Circle* to see how material feminism is made manifest in art.

Caitlin Fisher's *Circle*

Circle is a work of born-digital electronic literature, which means that it is made on the computer and read through computational devices. It is, like other electronic literature, dependent upon a network of operations occurring across hardware, software, and programming code. Its computational processes and technological components are inseparable from its poetics. There is no linguistic "text" to analyze separately from the material – technological and artifactual – context that constitutes the work. The menagerie of little objects arranged on the tabletop, the digital devices, the narrative fragments, and the reading practices all participate collectively to produce the literary experience. Unlike many genres of electronic literature, including web-based hypertext and Flash poetry, *Circle* is generated through real-time interaction between the reader and the work's database, which includes both its archive of analog objects embedded with QR codes and available for handling as well as its digital database of sound and image files. *Circle* is interactive in that it requires input from the reader in order to produce its performance. It is also *intra-active* (Barad's term), for it uses augmented reality technology to create a situation wherein animate and inanimate objects collaborate to present an emergent aesthetic. Importantly, for my purposes here, it does all of this in ways that employ aesthetics that examine and critique object-oriented philosophy.

Fisher describes *Circle* as an "augmented reality tabletop theater piece" (Fisher, 2013)[7] because the work consists of a collection of small, personal, and domestic objects (a bracelet, a piece of stationary, family photographs, a doll's head, etc.) collected in a carrying box and arranged on a tea service tray on a tabletop. Each of these items contains a digitally encoded marker, a version of a QR bar code. The reader picks up an object, holds it in her hand, and turns her iPad (or, in versions in development, the VR headset) toward it to launch the software and *Circle*'s story. This narrative is not presented as text to be read; it is, instead, heard as a sound file, an oral telling. The narrator's voice speaks in a soft and gentle tone while old family photographs appear before the reader's eyes. The sensorial experience presents personal stories about the relationships between the narrator, her absent mother, her devoted grandmother "Jelly," and her baby daughter Harriet. This text is presented in fragments, literally discrete sound files that can be accessed in any order depending upon which analog object the reader selects and scans. Formally, the work is a hypertextual narrative, a network of vignettes that tells the stories of networked relationships between women and the things they touched, treasured, and built lives around.

At the center of *Circle* is a woman who gives voice, literally and figuratively, to the stories of the women in her life. Our narrator has recently become a mother and has acquired a newfound appreciation of the woman who raised her. The narrator uncovers the forgotten stories behind the things the reader holds, the objects revered by her beloved grandmother, Jelly. Fisher places the reader in the position of also holding and discovering the backstories of these things, stories which are literally attached to the things the reader holds. Fisher pairs advanced digital technology with a carefully curated collection of little objects to tell a rather simple domestic story. These kinds of stories aren't usually the content of augmented reality games and storytelling, but Fisher appropriates distinctly digital aesthetics to serve feminist purposes.

The objects that constitute *Circle* are all of a certain sort: small and holdable (able to fit in the palm of the hand), personal, and feminine. They are the stuff of homes and parlors, of make-up tables and jewelry boxes. *Circle* puts these objects on display and prompts the reader to interact with them in new ways through new media. The work makes us see these objects anew, along

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with the women who once held, owned, and gifted them. In short, I see Fisher's *Circle* as an artistic manifestation of "material feminism." The work provides an opportunity to consider and critique contemporary trends in thing theories that ignore embodiment and thus disregard feminism, including object-oriented ontology. *Circle* shows how literature, and digital literature in particular, provides a platform for reflecting on how we think about things.

Against OOO

Circle enacts relational storytelling. The narrative needs to be contextualized before it can be understood and made to cohere. For example, we learn that our narrator is a young mother to daughter Harriet and that she finds motherhood to be a time to reflect upon the woman who raised her (her beloved grandmother, "Jelly") as well as the woman who did not (her absent mother). The narrator divulges that Jelly raised her "since my parents went on holiday to Morocco in 1967 and didn't come back." In the tone of a grown woman gifted recently with newfound insights, she describes her own mother from a perspective of generosity but also, and importantly for understanding that this is a work about relational feminism, from a perspective attuned to the impact of historical contexts. The narrator's mother was a young mother in the 1960s, when women were exploring their sexuality (and the craft arts): "We have mothers who cry, sleep all day, weave curtains from beads we later choke on." These glorious days of social rebellion, sexual exploration, and macramé had an impact on others, particularly the little children left to be cared for by their grandmothers because such children had "Mothers we need to tuck in at night after parties, mothers we tell to please get more milk and who is sleeping in my bed." *Circle* shows that there are not only stories and backstories but also stories that connect characters (human and objects) into a web or network of relationships.

Circle is told circularly or, more accurately, recursively. The work's vignettes can be accessed in any order the reader chooses, depending on which objects she selects, so the stories build in a cumulative manner but also through repetition. Repetition and recursion are built into the narrative content. Our narrator tells us, "My grandmother was raised by her grandmother, too." This line encompasses the content of an entire vignette and sound file. It tells us that Jelly and the narrator share the trauma of an absent mother and suggests that this experience bonds them. The grammatical structure of the sentence also implies something subtle and poignant: that this repetition in narrative structure is not limited to the characters within this story but also represents how women's stories are often told in asides, in sentences that end with "too." This addendum is a connector, an add-on. Its grammatical structure links sentences and people into a relational network. This linkage is a hyperlink of sorts that serves, at the level of narrative and at the level of critical intervention that this work serves, as part of the point.

Circle is about objects, and it operates through them. Its narrative depicts key moments in the development of its human subjects but also in the histories of inanimate objects that trigger these memories. The work tells the stories of how these selected things arrived at a place where they could be held and touched by the reader and scanned by the digital apparatus. This scenario might be the perfect place to promote OOO's idea of object agency, for *Circle* attaches digital markers to objects, embedding them with stories that exist even if we do not read them. These objects exist in and of themselves; they are each an autonomous agent that contains (literally, for they are each encoded with) digital data. Yet, *Circle* depicts these objects, and human relationships to them, as existing in complicated contexts of mediation, symbolism, and emergence. The work thus challenges OOO's attribution of autonomy and agency to objects.

Take, for example, the golden bracelet, a central component of *Circle*'s object collection and its narrative. The narrator tells us that Jelly's mother "has a bad heart and dies when my

grandmother is ten," leaving Jelly to be raised by her grandmother. Jelly (the narrator's grand-mother) wears her mother's gold bracelet as a kind of personal memorial that marks her own body. The story presents this object as not just a figurative and personal metonym for a lost mother; it is more material than that. A psychic once told Jelly that the piece of jewelry actually contains the beating heart of her dead mother: "'Let me hold that,' the psychic says, 'whoever wore this has a bad heart – you can still hear it beating.' *Tha-thump, that-tha-thump.*" When we, the readers, hold the bracelet, we hear the story of the artifact and of Jelly's mother. We hold the heart of the story in our hands – the trauma of losing one's mother, a trauma that bonds Jelly and the narrator. Our hearts ache for these children even as the narrative shows that this central loss turns these women into loving women and caregivers. The transmission of this information – from mother's body to bracelet to child, and from diegetic character to bracelet to reader of the narrative – centers *Circle*, and this centering happens around a circular symbol for infinity and repetition. A bracelet's center is void, but, as *Circle* shows, emptiness and loss can serve as the cornerstone for love and growth.[8] The bracelet adorns the narrator's wrist and dangles in front of her own baby, Harriet, tantalizing the fourth generation of women to hear its hidden heartbeat and desire to know the story behind it. Harriet "grabs my bracelet with the hidden heartbeat. You can still hear it beating. *Tha-thump, that-tha-thump.*" We, the readers of *Circle* who now hold the bracelet in our hands, become part of this circle of women as we transmit their stories through intra-actions with their things.

We read *Circle* by entering and interacting with its relational network of things. We select, hold, and examine the objects before us; in the process we become aware of how these artifacts participate in a sophisticated technological apparatus that mediates our ability to access hidden family histories. The women's stories that *Circle* tells not only center around but also actually emerge out of interaction with these objects. It is through this network of analog objects, digital technologies, and programming that *Circle* presents a literary exploration of material relationality. The work thus suggests that materiality and meaning emerge through relations between animate and inanimate agents. *Circle* tells the stories of how these women became who they are, how they emerged and arrived in their current situations through networks of relations and interactions with animate and inanimate objects. In so doing, *Circle* invites us to consider the systems of medi-ation, both technological and social, which shape our own interactions, experiences, and selves.

Circle not only presents a context for humans and things to interact but also invites examina-tion into how objects arrive at a certain moment wherein they *can* interact. The work suggests that these sedimented histories of arrival (histories of labor, movement, distribution, and sharing, etc.) inform that interaction and its interpretation. In an essay titled "Orientations Matter," Sara Ahmed argues "we touch things and are touched by things" not simply by virtue of being within the reach of objects but because "what is reachable is determined precisely by orientations we have already taken" (245). This means that immediate experience is always part of a longer his-tory of interactions and situations. It also means that focusing on orientation – rather than just on actors, actions, and settings – allows us to see how, as Ahmed writes, "Orientations are about the direction we take that puts some things and not others in our reach" (245). Past orientation leads to present situation. This fact renders all artifacts, animate or inanimate, embedded with layers of experience that have meaningful impact on how they interact. Understood this way, objects are not isolated and discrete but interconnected. Ahmed states, "The materialization of subjects is hence inseparable from objects" (248–249). This view stands in opposition to OOO's effort to comprehend objects as distinct from subjects, but it is certainly proven true in *Circle*'s networked narrative.

Although *Circle* presents objects that seem to be autonomous agents, the stories that these things contain are actually histories of the object's materialization, its orientation and arrival, and

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these histories are imprinted by and inseparable from the human stories in *Circle*. The golden bracelet exemplifies this point, as it is said to contain the beating heart of a woman. *Circle* presents an object-centered aesthetic that animates the inseparability of subjects and objects while also drawing attention to the layers of mediation involved in enabling their interaction. In *Circle*, orientation is not only conceptual but also technological. For a reader approaching this work, reading requires getting oriented to a sophisticated technological apparatus: the reader must orient herself in very physical and embodied ways in order to focus her gaze (and the digital scanner) on a particular object (and its digital marker) so as to virtually touch that object and thereby elicit the text it contains. *Circle* makes it inescapably clear that our relationships with objects are always mediated and impacted by orientation and, often, by technologies.

Circle is part of Fisher's decades-long engagement in using augmented reality (AR) technologies for storytelling, specifically for telling stories about women from a feminist perspective. *Circle* is still in development. In fact, it might be more appropriate to call *Circle* "a working project" rather than "a work" because it has gone through multiple iterations and technological instantiations. The version exhibited in 2012 at the Electronic Literature Organization (ELO) conference at Morgantown, West Virginia, used paper to hold the digital markers, whereas the version I discuss here uses actual objects imprinted with QR codes and a tablet or VR headgear to scan these three-dimensional objects; this version was built later using the Unity game engine and Qualcomm's Vuforia Augmented Reality SDK.[9] Specific technological updates aside, however, *Circle*'s history of development is part of its argument about relationality and context-based meaning. This production history is also part of a larger story about the inseparability of content and format, of how an artist uses technological innovation to drive the production of new literary works and, conversely, of new augmented reality literature explores the same topic in different iterations. Fisher makes no effort to present *Circle* as autonomous and complete – quite the opposite. The messiness of creation is put on display. Its history is part of its project, available in every online exhibition and archive of the work. This information disables a progressive narrative of development and instead serves as a framing device for understanding that this work is not just a thing, object, or completed entity; it is a constellation of processes and contexts, a generative and generated experience. *Circle* exemplifies how Fisher's oeuvre demonstrates networks of animate and inanimate objects collaborating within a digital context to update literature – to make it *arrive* for readers who must themselves practice emergent readerly orientations.

Aesthetics

We finally arrive at the place in this essay where we can carefully examine the aesthetics and formal attributes of this compelling digital work and recognize how they serve a material feminist practice. I will focus on two aesthetics at work in *Circle*: glitch and cute. By "at work," I mean to suggest that this piece of literature employs these particular aesthetic tropes in order to pursue a strategic critical intervention. *Circle* uses an aesthetic of cute in order to promote critical deconstruction of the presumed binary and value hierarchy of beautiful/cute, high/low art or art/craft; and the work pursues an aesthetic of glitch in order to destabilize the dualism of normal and glitchy, correct and error. These deconstructive impulses depend not on linguistic and rhetorical turns (to which we have become accustomed in postmodern theory and about which we have seen material feminism respond) but on things. It is, in fact, impossible to read this work and ignore its thingy-ness. Though the work functions through a complex digital apparatus, its analog objects are central and real. You hold these things in your hands and fondle them in order to access a story that prompts you to reflect upon how women's stories are told – or not told. And all of these objects are of a particular variety and aesthetic: they are small, feminine, and cute.

Cute

Circle operates through an aesthetic of cute. "Cute" is a term usually used to discount a work of art – to signify that it is not serious, relevant, or all that good. But Sianne Ngai's *Our Aesthetic Categories: Zany, Cute, Interesting* offers a way of thinking critically about the aesthetic of cute, and I will rely upon this scholarly work to argue that *Circle* prompts us to reconsider cute as a means of challenging established aesthetic values and, specifically, their gendered biases. Ngai pursues a historical excavation and deconstruction of the category of "cute" that uncovers reasons why (and when) calling something "cute" denotes dismissal and, particularly relevant for my purposes, alignment with the feminine. Far from being the opposite of serious art, "cuteness" actually has an important presence in the 20th-century avant-garde, Ngai shows. Cuteness operates as smallness in canonical short poems like William Carlos Williams's super-cute "This Is Just to Say"; and, she argues, cute also serves to focus readerly attention on domesticity, as in Gertrude Stein's *Tender Buttons*. Ngai traces the history of cuteness as a negative aesthetic judgment to 19th-century America and the emergence of mass industrial culture in it, wherein "cute" came to express commodity fetishism and a desire to return "to a simpler, sensuous world of domestic use and consumption, populated exclusively by children and their guardians" (*Our Aesthetic Categories* 66). This is when "the value of cuteness seems to shift from unequivocally positive (charming socks) to negative or ambiguous (innocent boy)" (59). "Cute" came to designate the negative affects of smallness, vulnerability, and softness – qualities associated with women, children, and the domestic realm, all of which, due to industrialization, became further and further removed from that of physical labor and of men. This is the historical context in which "cute" takes on a negative tinge in the hierarchical registry of aesthetic judgments and thus becomes aligned with the feminine.

Ngai contrasts the cute and the beautiful: "cuteness contains none of beauty's oft-noted references to novelty, singularity, or what Adorno calls 'a sphere of untouchability'" (54). But in a brilliant act of deconstructive interpretation, Ngai shows that the opposition and dualism is not that simple. Cute is actually about power relations and gender differentials. Ngai writes, "in vivid contrast to beauty's continuing associations with fairness, symmetry, or proportion, the experience of cute depends entirely on the subject's affective response to a imbalance of power between herself and the object" (54). Cute objects demand to be held and squeezed; they thus exert power over the viewer by exploiting their position of powerlessness. "The cute commodity," Ngai explains, "for all of its pathos of powerlessness, is thus capable of making surprisingly powerful demands" (64). *Circle* demonstrates this idea; its cute objects induce us to hold them. The objects exert power over us and, certainly, over the narrative. The work displays an "aestheticization of powerlessness" (64), which Ngai argues is the paradoxical power of cute, and it programmatically positions the cute, little, femininized things in Fisher's tabletop menagerie so that they compel us to interact with them in certain ways. These cute little things are not only quite powerful but also capable of producing art. Cute becomes powerful in *Circle*'s feminist aesthetic practice.

Glitch

We read *Circle* by interacting with its cute analog objects, but *Circle* also makes inescapably clear that this interaction depends upon digital processes, devices, and networks. Reading this work requires that we focus the digital reading device on an object, wait for the digital connection, and hope for the best. The best is when the digital circuit seamlessly prompts an image or sound file to play so that we can hear the story and experience a sense of immediacy to our narrator and the women in her life. But what actually happens is quite different. Along with the narrative

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fragments presented in images and sounds, we get noise; we get glitch. Rather than immediacy, we get hypermediacy (Bolter and Grusin, 1999);[10] we become acutely aware of the technologies mediating our access to the personal stories and artifacts of female relationships.

According to the Shannon–Weaver communication model, which became the basis for information theory, noise is a by-product of information transmission. It is the supplemental aspect of communication that is added to the message as it is moves through a medium during the process of being transferred to the receiver. Noise is that which needs to be filtered out in order to leave the message.[11] The presence of noise thus indexically references the technology involved in enabling communication. In other words, noise draws our attention to the fact that technology mediates. *Circle* makes noise a central aspect of its aesthetic, using it in intentional and purposeful ways. Rather than "noise," then, a term that references the unwanted aspect of communication transmission, we might call *Circle*'s supplemental element "glitch." Glitch signifies differently than noise. It doesn't just register the presence and fact of mediation; it indexes a fault in the system. Unlike noise, which communication theorists understand to be an essential component of technological communication, glitch is a symptom of error. It turns our attention to the technological inner workings of mediation, to the operations and processes, not just their effects and end products. "A glitch is a mess that is a moment, a possibility to glance at software's inner structure," Olga Goriunova and Alezi Shulgin write, which is why "glitches are compelling for artists and designers as well as regular users" ("Glitch" 114 and 116, respectively). In her entry on "Glitch Aesthetics" for the *Johns Hopkins Guide to Digital Media*, Lori Emerson explains that glitch

> captures a moment in which an error in the computer system is made visible; it therefore exploits randomness and chance as a way to disrupt the digital ideal of a clean, frictionless, error-free environment in which the computer supposedly fades into the background.
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> *(237)*

Circle uses glitch, that undesirable element of systems operation, for purposeful aesthetic purposes: to tell a story of women and illuminate the systems that render their stories legible or, often, not. Glitch reminds us that there are gaps and hidden histories, parts of the sound file that we cannot hear and stories about the women who we will never know.

Circle is intentionally glitchy. The digital markers are placed close together, often overlapping on the same object, making it hard for the software to smoothly process multiple markers at a time. The effect is confusing and messy. Multiple sound files open at once and speak over each other, creating repetitive echoes and eerie sounds. The glitches interrupt the narrator's human voice with unnerving technical sounds, forcing recognition that our engagement with these cute objects and the human tales tell is deeply remediated by digital technologies. In this way, *Circle* might be exemplary of what Legacy Russell calls "Glitch Feminism." Russell identifies glitch as a symbol for social revolution. Seeing glitch as a rupture that illuminates sexist injustice, particularly within the field of computing which is gendered masculine, Russell argues that glitch is "an error in a social system that has already been disturbed by economic, racial, social, sexual, and cultural stratification," so that the glitch serves not as "an *error* at all, but rather a much-needed erratum" (italics in original, 2012).[12] *Circle* uses glitch aesthetics to appropriate error for feminist purposes – to turn attention to the systems involved in mediating information transmission and to stimulate critique of how these systems operate.

Circle's use of glitch also suggests that women and their stories just might be glitches in computing. Caitlin Fisher could herself be seen as a glitch in this system. She is a female artist, scholar, and technological innovator honored by a Canada research chair and widespread international recognition. Her work consistently explores gendered dynamics and feminist theory: from her

2000 dissertation, *Building Feminist Theory: Hypertextual Heuristics*, which examined intersections between feminist and hypermedia theories; to her first digital novella, *These Waves of Girls* (2001), a web-based hypertext about emergent sexuality and lesbian identity; all the way to *Circle*. Fisher's work – and *Circle* is exemplary in this regard – uses new media technologies to challenge trends pervading contemporary computing culture and the critical trends it inspires, particularly those that focus on objects and information without caring about embodiment, materiality, or gender. Fisher, like her work *Circle*, employs the glitch as aesthetic feminist practice to challenge the status quo.

Conclusion: circling back around to circle the wagons

Caitlin Fisher's *Circle* uses cutting-edge technology to turn attention to the complexly mediated contexts that frame our interactions with even the simplest objects. The work prompts us to touch and hold artifacts culled from domestic life and to hear the women's stories they contain, all in the service of promoting consideration of how these interactions and *intra-actions* happen and how they mean. The cute little objects in *Circle* and the glitchy aesthetics they produce stimulate recognition that materiality is always dependent upon situated networks of emergence. These networks include animate and inanimate entities but are always encased in interpretative systems based in human contexts and biases. *Circle* is about relationality: relations between human readers and analog objects, between these objects and the digital devices that scan them, between this transmedial format and the literary performance that it produces. Presenting a reading experience of relationality, *Circle* demonstrates Barad's claim, "It is through specific agential intra-actions that the boundaries and properties of the 'components' of phenomena become determinate and that particular embodied concepts become meaningful" (133). Situatedness, that central component of feminism, and specifically of material feminism, is made manifest and aesthetic in this work of digital literature.

As an augmented reality work of literature, *Circle* exists at the interstice between virtual and real, and it uses this position of inbetweenness to enact Tuana's concept of "viscous porosity" and to insist upon the messy arrangement of contexts that enable embodiment, experience, and meaning. This is a work of feminist storytelling that invites feminist literary criticism to close-read its tangled web. *Circle* compels us to recognize that where feminist storytelling goes, so too should feminist literary criticism. When we do follow, we see how literary aesthetics can combat philosophical trends toward forgetting the ethics and politics of materiality in the pursuit of focusing on objects. *Circle* inspires us to see how experience, materiality, and indeed literature are emergent, relational, and embodied. Such work reminds us that we need not – and should not – forget that understanding what matter *is* does not foreclose remembering what matters.

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Notes

1 For more on the importance of situatedness and positionality to feminist epistemology, see Elizabeth Anderson's "Feminist Epistemology and Philosophy of Science", *The Stanford Encyclopedia of Philosophy* (Spring 2017 Edition), Edward N. Zalta (ed.). https://plato.stanford.edu/archives/spr2017/entries/feminism-epistemology/ (Accessed August 11, 2015).

2 See Quentin Meillassoux's *After Finitude: An Essay on the Necessity of Contingency* (New York: Bloomsbury Continuum International Publishing Group, 2008 [2006]).

3 The Comments section of this blog post are illuminating in that they display a communal thinking through of the very act of defining OOO and thus the challenge of defining OOO at all. http://bogost.com/writing/blog/what_is_objectoriented_ontolog/ (December 2009) (Accessed July 10, 2015).

4 These are just a sample of such scholars doing such important work, but see, in particular, N. Katherine Hayles's *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics* (Chicago: University of Chicago Press, *1999*), Donna Haraway's *Simians, Cyborgs and Women: The Reinvention of Nature* (New York: Routledge, 1991), Wendy Hui Kyong, *Control and Freedom: Power and Paranoia in the Age of Fiber Optics* (Cambridge, MA: MIT Press, 2006), Sadie Plant's *Zeroes + Ones: Digital Women and the New Technoculture* (New York: Doubleday, 1997), and Anne Balsamo's *Designing Culture: The Technological Imagination at Work* (Durham: Duke University Press, 2011).

5 For the defining scholarly intervention on the "posthuman," see. Katherine Hayles's *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics* (Chicago: University of Chicago Press, 1999).

6 See Rick Dolphijn and Iris van der Tuin's *New Materialism: Interviews & Cartographies,* University of Michigan, Open Humanities Press, 2012; see, in particular, section 5: "The Traversality of New Materialism," https://quod.lib.umich.edu/o/ohp/11515701.0001.001/1:5.2/--new-materialism-interviews-cartographies?rgn=div2;view=fulltext

   Dolphijn and van der Tuin argue that "the immanent gesture of new materialism is transversal rather than dualist." http://quod.lib.umich.edu/o/ohp/11515701.0001.001/1:5.2. (Accessed August 11, 2015).

7 See a description and documentation of the work, at http://futurecinema.ca/arlab/.

8 Thanks to Melissa Sodeman for this insight.

9 The ELO conference website, along with the archived Media Arts show containing *Circle* is available here: http://el.eliterature.org/.

10 In *Remediation*, Jay David Bolter and Richard Grusin describe "immediacy" as experience of losing track of the technological mediation at work in creating an affective aesthetic experience, while "hypermediacy" is the flipside or "alter ego" of immediacy. This conceptual dualism works to for describing and understanding *Circle*.

11 See Claude E. Shannon and Warren Weaver, *The Mathematical Theory of Communication* (University of Illinois Press, 1949).

12 Online, http://thesocietypages.org/cyborgology/2012/12/10/digital-dualism-and-the-glitch-feminism-manifesto/ (Accessed June 17, 2015).

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AuQ19

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