
Interpreting an Improper Materialism

On Aesthetics, Synesthesia and the Digital

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Abstract

This paper explores catachrestic synesthesia as a key interpretive strategy that contemporary media artists are drawing upon in an effort to conceptualize and grapple with 'digital materiality.' I argue that these synesthetic gestures are not merely poetic flourishes. Instead they test the limits of representation, identifying gaps in language while employing the body in order to triangulate modes of computational materiality that are proving conceptually and phenomenologically evasive. Grounded within a series of material-driven interviews that I conducted with thirty-five digital media artists, this analysis will be advanced through the following means: (1) a review of media phenomena and scholarly work that inform current debates regarding digital materiality with particular attention paid to the potential contribution of contemporary media art within this field of study; (2) an analysis of occasions where artists conjured the senses synesthetically as a disoriented means of grasping at the material attributes of their digital works; and (3) a theorization of "catachrestic synesthesia" as an interpretive strategy with broader implications for how digital materiality 'as such' might be better understood.

Introduction

Digital materiality has become an increasingly prominent area of inquiry within the humanities and social sciences. Responding to the disappearing grounds of digital mediation, much of the emerging scholarship within this field has sought to expose, solidify and theorize the materiality of the digital as a means of preserving an effective space for medial critique and intervention. To this end, existing efforts have focused largely on either the physical infrastructure that undergirds digital systems, or on the architectural function of digital code (Ernst 2013; Hertz/Parikka 2012; Kirschenbaum 2008). While these analyses have contributed significantly to the field of media studies, few have explored digital materiality as such (Stevens 2012; Blanchette 2011; Lillemoss 2006). Instead, current work has tended to reiterate traditional conceptualization of materiality, treating it repeatedly as a property belonging to stable entities. In a world that is increasingly being articulated by the micro-temporal refresh

of digital devices (Zielinski 2008), a new understanding of materiality needs to be developed that can better account for the material dynamism of digital processes. According to Johanna Drucker (2009a), reflexive engagement with the aesthetic and interpretive strategies that digital materiality “cues,” might offer a promising point of departure for this type of ontological project.

Grounded within a series of material-driven interviews that I conducted with thirty-five digital media artists, the following paper engages with Drucker’s methodological suggestion in an effort to begin developing an account of materiality that is particular to the digital. Responding to key themes that emerged throughout the interviews, I will explore and advance catachrestic synesthesia as an interpretive strategy that contemporary media artists are employing in an effort to make sense of digital materiality. I argue that these synesthetic gestures are not merely poetic flourishes. Instead, through an improper triangulation of the senses, they provide a means of grasping at and acknowledging a mode of materialism that is phenomenologically unavailable to human perception – despite its perceived effects. In order to situate this discussion, the paper will begin with a concise review of media phenomena and scholarly work that inform current debates regarding digital materiality. Drawing upon Drucker, I will pay particular attention to the potential contribution of that contemporary media art works and making-practices might offer to this field of study. I will then turn to a discussion of occasions within the interviews where artists conjured the senses synesthetically as a disoriented means of grasping at the material attributes of their digital works. Building on this grounded analysis, the closing sections of the paper will theorize catachrestic synesthesia, pointing to the broader implications that this interpretive strategy has for how digital materiality “as such” might be better understood.

The 21st Century Media Situation

Contemporary media theory is driven by an underlying anxiety and suspicion levied against the ‘submedial’ undercurrents of mediation. Referring to the extra and contagious space that lies beneath media surfaces (Parisi 2013), the submedial “lurks behind, hides itself, and remains in the dark” (Groys 2013: 19). It is that which articulates and supports the effects of mediation. It is that which much of media theory aims to expose. Within our contemporary media context, the submedial accounts for the imperceptible space within the physical and the virtual, where ‘the digital’ is performed through programmatic and algorithmic means. From this perspective, it is a unilateral placeholder leant to the materials of mediation that have proven too complex, too unstable, or too phenomenologically evasive to account for comprehensively.

Contemporary efforts to account for the submedial have been greatly complicated by the dissipating perceptibility of media devices and processes at large. With each passing day, a new roster of smaller, faster, less apparent and more comprehensive technologies are being advanced. From the transformation of banal things into an integrated network of smart actors to the pairing of big

data collection methods with “deep learning” regimes, processes of mediation are increasingly withdrawing from view while simultaneously playing a more significant role in the articulation of everyday life. As numerous scholars have detailed, media devices have thoroughly sunken into our environments and are acting at an affective and infrastructural level to articulate the very grounds of contemporary experience (Thrift 2005; Hansen 2015). No longer simply a matter of augmentative prosthesis, they have formed an informational ecology that is apprehending and shaping the world outside the phenomenal field of human perception. Marking a strategic move towards greater immediacy (Bolter/Grusin 1999; Kittler 2010), not only are media devices receding from view, but, through their capacity to aggregate unprecedented amounts of information, they are also increasingly reacting preemptively – collapsing the time of mediation, and further exacerbating its onto-genetic capacity.

The perceptual disappearance of the medial identifies a shift away from the opacity of black-boxing towards a form of obfuscation through transparency. Through processes of miniaturization and the fore-fronting of decentralized form and processual function, the whereabouts of mediation (let alone the submedial) is becoming increasingly difficult to discern (Galloway 2012). In this vein, while the proverbial black-box promised a solid object of critique, readily identifiable and beckoning deconstruction, contemporary media devices are resulting in the erasure of reliable grounds for critique and political response (Lovink 2014). This is made all the more troubling given critiques that highlight the effects of the (sub)medial on matters of temporality (Hansen 2015), attention (Terranova 2012; Pasquinelli 2008), memory (Stiegler 2010), imagination and general intellect (Berardi 2009).

According to Groys (2013), serious media theory has sought to overcome the anxieties introduced by the submedial through rigorous speculation regarding those parts of mediation that get written out by consciousness. Despite these efforts, the fact of the matter is that the submedial can never be known as such. Given that it is defined by its concealment, exposure merely transforms the submedial into a surface effect – either a matter for semiotic consideration, or an insincere and fleeting reminder of that which underlies. This paradoxical impossibility suggests that as soon as the submedial is demystified and made knowable, a new range of indiscernibility is revealed and brought to the fore. While this regenerative drive might fuel media theory in perpetuity, it does not mean that speculative pursuit of the submedial is a futile project. In fact, ignoring it, succumbing to discourses of withdrawal and transparency, wilfully ignores the discursive, political, and technological work that goes into enacting media systems. From matters of surveillance, risk, and economics, to the legitimization of restrictive legal policies, the submedial space of digital media is affecting very real consequences despite the impossibility of knowing it as such. As a result, contemporary analyses of the submedial should ideally seek to materialise and preserve these grounds in as complex, reliable, and actionable a fashion as possible – rather than getting too hung up on the ‘truth’ of the matter.

Digital Materiality – A Methodological Approach

Accounts of ‘digital materiality’ locate one area of scholarship attempting to expose and reaffirm the submedial terrain of 21st century media. In her treatise on speculative computing, Joanna Drucker (2009a) argues that “the specific, particular character of materiality always registers the circumstances of production, expression, and interpretation” (ibid.: 142). Even within the fading temporal grounds of mediation, Luciana Parisi (2014) proposes matter as an archive of the future – a means of preserving a human capacity for apprehending and intervening in processes of mediation. In this vein, locating and exploring the material grounds of the digital, digital materials, may provide a means of uncovering, recovering, and maintaining a space for meaningful and significant engagement with 21st century media forms.

To date, this emerging field of research has attempted to develop an understanding of “the material constraints under which computing systems operate” (Blanchette 2011: 1055) and through which digital phenomena are made to appear durable (Kirschenbaum 2008). Much of this work stands in critical opposition to a persistent rhetoric of dematerialization that has substituted popular representations of the digital as disembodied and free from material constraint, “for a more comprehensive treatment of the material particulars of a given technology” (ibid.: 36). Regardless of method or theoretical commitment, existing scholarship to this end typically posits digital materiality as an irreconcilable though sustained duality. On the one hand it accounts for the physical underpinnings of computational systems. Adopting an anti-hermeneutical and non-interpretive approach (Kittler 2010; 1999), empirical analyses of hardware forensics, devices, or network infrastructures are advanced as unadorned indicators of historical fact rather than as repositories of cultural significance (Ernst 2010). These accounts typically assume synonymy between the physical and the virtual, wilfully ignoring the material particulates of digital phenomena, algorithmic objects, and cultural desire.

When not collapsed into the physical, digital materiality is frequently approached as a programmatic matter of semiotic affection and ideation. Referred to by Matthew Kirschenbaum as “formal materialism,” this perspective looks at how software processes simulate or model materiality despite being founded upon a system of abstract signifiers. Through an erroneous collapse of form and matter, formal materiality is treated as though it were a phantom pain. It is a false perception of something without reality, without actuality – a something that merits consideration only due to its socio-cultural relevance. Within Organization Studies, this sentiment has led to considerations of digital materiality as a social construct, a hallucination negotiated and concretized through labour practices, practical instantiation, and artefact significance (Dourish/Mazmanian 2011; Leonardi 2010). In other instances, digital (formal) materiality is approached through the guise of software studies. While many of these analyses provide close technical readings of code, they generally fail to theorize modes of materiality that are particular to the digital objects and phenomena that executed code articulates, performs and reifies. The trouble in

this case is that to ignore this phenomenal expression of digital materiality, is to erroneously treat software as though it is a perfectly transparent, replicable and self-actualized mode of production.

Numerous recent efforts within critical code and software studies have sought to overcome this oversight. While Frabetti's (2015) recent publication, *Software Theory*, deconstructs the canonical aporia between text (code) and matter as a means of exposing the iterative materialism of software, many other scholars have turned to a form of negative triangulation as a means of delimiting the materiality of the digital. In the case of the latter, protocols, constraints, and points of opacity are mapped and critiqued as the means through which particular experiences, forces and forms of the digital are stabilized. This approach recognizes that digital materiality, like 'dark matter,' is not directly available to experience. Efforts to map out the forces that stabilize and delimit the material parameters of the digital are therefore treated as a means of developing a negative image of its attributes and whereabouts (Fuller/Goffey 2012; Galloway 2004). Recognizing the shortcomings of a negative account, others have looked to sedimental metaphor and ancient allegory as a means of conceptualizing the imperceptible grounds of digital matters (Parikka 2013; Galloway et al. 2013).

While the literal and descriptive analyses emerging from each of the perspectives outlined above have filled critical conceptual gaps in a field plagued by a pervasive rhetoric of dematerialization, much of this work has been limited by its struggle to bridge traditional conceptualizations of materiality (as, for example stable and immediately perceptible) with the hidden processuality of the digital. Part of the problem in this case is that little of the existing work has engaged with the question of materiality as such, particularly in relation to our current media situation (Stevens 2012). While this is troubling in part due to the submedial pressures outlined above, it is critical to note that we are also experiencing a novel moment in the history of philosophical meditations on substance. Digitally enacted information is undermining historically established perceptions of what matter is. This is not simply an extension of rhetorical dematerialization.

Instead, technological actors are articulating new objects and matters that are thoroughly computational, introducing new phenomena in need of conceptualization (Hui 2012). To this end, a new understanding of materiality needs to be developed that can begin to account for the complex material dynamism of digital processes as they take place outside the field of direct human perception. Not only does this project promise to formalize the grounds of mediation, but it will also provide a reliable point of departure for making sense of new technological phenomena in our midst. As a result, if we are going to gain purchase on the new forms, orders and infrastructures in our midst, we need to reposition our point of epistemic departure and develop new (and always speculative) methods for critical analysis that are better able to contend with, rest within and represent matters of flux.

For an Arts-Based Approach to Digital Materiality

According to Johanna Drucker materiality is always a matter of interpretation. Rather than composing or delimiting solid objects, it denotes a probabilistic field of events defined by constraints and affordances held in dynamic tension (Drucker 2009a; 1994). Within this formulation, materiality is that which instantiates an intra-active space for meaning-making and knowledge formation. The materiality of worldly affairs shapes the experience and coinciding interpretation of a field of events. In turn, these interpretations fold in on themselves to shape how materiality is conceptualized and attributed to the event as such. As material constraints and affordances shift through time and space and in response to a variety of forces and innovations, so too does meaning and knowledge change. For instance, since Aristotle, materiality has been conceptualized varyingly as fundamentally knowable, primary, spatial, empirical, dualistic, qualitative, spaceo-temporal, unknowable, physical, formal, dialectic, heuristic, immaterial, etc. In this vein, rather than asserting an absolute (stable) definition of materiality, it must be approached relative to contemporary formations.

As Johanna Drucker has documented, ‘digital materiality’ is intended to account for the simultaneity and situated experience of hardware, “code and its specific materiality, modes of production that are integral to digital media (interactivity, intersubjectivity, iterative and algorithmic principles for production), models and modeling processes, and the specific ideology of virtual artifacts” (2009b: 128). Purely technological, code-based, or metaphorical approaches will fail to provide a comprehensive account of the complex simultaneity of these situated factors. In response to this perceived short-coming, Drucker advances “aesthesis” as a promising method for exploring materiality. Aesthesis as method departs from an underlying presumption that materiality is inherently aesthetic. It is the aesthetic capacity of matter, rather than its presumed physicality, that enables its experience and interpretation by attentive actors. Similarly, it is the aesthetic capacity of matter that bridges the physical with the ideal to shape the event of meaning making and knowledge formation. By exploring the aesthetic particulars of creative practices and work, we can start to bridge the different, but coinciding, components of digital materiality. Achieving this necessarily requires an approach that is active on numerous fronts simultaneously, working as or in conversation with practitioners to map out the technical grounds of their work, their creative practice, methods of production, conceptual impetus, and aesthetic output. Engaging reflexively with this collection of materials, aesthesis requires the researcher to dwell in the complexity of materiality, while advancing speculative knowledge that remains fundamentally abductive, partial, heteroglossic, and probabilistic (ibid.: 25). A key feature of aesthesis is its capacity to complicate the “mathetic” tendencies behind computer engineering by creatively fore-fronting the impossibility of knowing the world in a fashion that is not inherently situated, subjective, and partial. Materiality in this case cannot be written away by the efforts of engineering and good design, but remains a poetic function of aesthetics. Until such time as mediation stops having an effect, its materiality will be accessible

through aesthetic analysis. To this end, Drucker is advancing a methodology that encourages creative (aesthetic) speculation about those parts of computation that are not and cannot be accounted for by exclusively “technical” accounts. In a sense, aesthesis reintroduces a capacity for wonder within a field that has become paralyzed in the face of totalizing systems of logic (*ibid.*: 131).

On the Matter of Digital Media Art

As a growing body of literature reveals, investigations of informational and computational materials make up a central current within the history of media art (Graham/Cook 2010; Popper 2007; Krysa 2006). From cybernetic painting of the late 1950s to experiments in telepresence and virtualism through the 80s and 90s, media art has a rich history of reflexively engaging with its own (increasingly digital) materials and corresponding means of production, dissemination and reception. Recently, artists, curators and critics affiliated with the “Post-Internet Art,” movement have drawn explicit attention to the shifting materialities that digital media are engendering (Archey/Peckham 2014; Vierkant 2010; Tribe/Jana 2006). Not only is there the sense that ubiquitous digitization and new methods of digital production are challenging traditional conceptions of materiality, but artists are also increasingly speaking to the perception that new modes of materialism are at play within their practice.

In an effort to overcome perceived shortcomings in emerging scholarship on digital materiality, apply Drucker’s aesthesis-informed method, and respond to materialist trends in contemporary media art practice, I conducted semi-structured interviews with 35 practicing media artists over the span of two years (2012-2014) to discern how ‘digital materiality’ factored into their creative practice. Rather than delving explicitly into the intended meaning behind their works, the interviews focused on practices of making and overarching themes at play within individual artists’ career. All of the interviews included questions regarding: creative process, software and tool use, art materials, shifting means of digital and physical production, perceptions of the digital, and current topics in media theory. In instances where artists offered an account of their work or practice that coincided either explicitly or implicitly with traditional conceptualizations of materiality, the interview protocol would follow-up with questions asking the artist to clarify, from their perspective, what it meant for something digital to exhibit materiality – what it was that enabled something or some practice to be deemed material.

One of the central themes that emerged was artists’ literal and metaphorical use of the senses as a means of accounting for and conceptualizing digital materiality. Given the aesthetic nature of the discussion and long history of philosophical accounts that connect matter with the senses, this theme was largely unsurprising. This being said, one of the more curious developments was artists’ repeated use of the senses synesthetically as a means of speculating about modes of (digital) materiality that were proving phenomenologically and conceptually evasive. While much of the artists’ work was exclusively visual,

they repeatedly discerned and corroborated the materiality of their work through metaphors of sound and touch. Rather than reading these gestures as poetic flourishes, or attempts to re-embody the digital, I would like to suggest that they frame the materiality of the digital as one of potentiality by transforming perceptible sensations (such as visions) into imperceptible sensations and vice versa. This is a move that retraces the retreat of the medial into the submedial. In the following section, I will provide a general overview of instances in which artists engaged in these synesthetic gestures. In this vein, my intention is to introduce a form of catachrestic synesthesia as one interpretive strategy that digital materiality is cuing. Responding to this strategy, I will close with a discussion of the reflexive implications that synesthesia has for how we understand digital materiality as such.

Sense Impressions

When Sara Ludy was pressed to defend her claim that the 2 dimensional orbs at the centre of her digital video series, *Spheres*, expressed a form of materiality, she first explained that they provoke a feeling of volume, texture, structure, and spatiality – all of which are experiences cued by the evasive materiality of the piece.

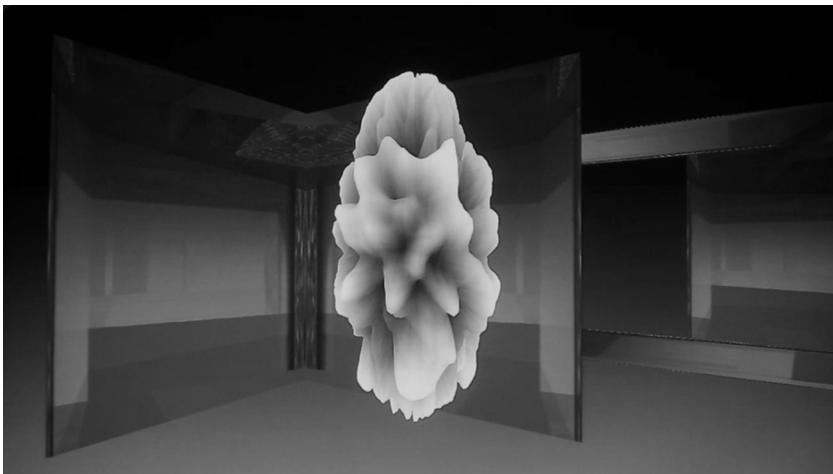


Figure 1: Sara Ludy, *Spheres* (2010-Ongoing). Still frame of HD video.

Working sculpturally with digital materials to create virtual spaces and digital objects, Ludy repeatedly described “feeling” her work. Despite being digital, the feelings that *Spheres* engenders resonate with Ludy’s experience of physical spaces and objects. In fact, according to Ludy the physical haunts her virtual pieces. Late in the interviews, when trying to make sense of these feelings, Ludy explained,

"I think that it's being engaged with the idea of immateriality that is the material [...] I think growing up in Virginia, it's a very haunted place, I can feel things. I can feel [respondent smirks] trapped spirits or things around me. Having these experiences, these visceral experiences, is somehow related to the digital."

Ludy feels the digital as though it were a spectral extension of the physical. *Spheres* does not offer representations of recognizable worldly objects; the formal appearance of the work represents Ludy's creative negotiation of the constraints and affordances offered by *Modul8*, the piece of software that she used. To this end, stating that she "feels" the work should not be read as an affective re-collection or projection of how particular (physical/worldly) objects have felt to Ludy in the past. Instead, in stating that she feels the work, she uses her body and feeling in general as a means of corroborating the claim that her digital work is material – it is material because it has the capacity to make itself felt in and through the body (rather than simply as an object for thought).

This sense of the digital "feeling material," or not, resurfaced explicitly within Rollin Leonard's interview in reference to his work, *Crash Kiss* (figure 2). *Crash Kiss* is a series of images displayed online as video works and stills, and recreated in physical environments with the aid of polished plexiglass tiles, each representing a single pixel. As the video works document, the images capture the face-on collision of two portraits in profile. As the contour of one portrait comes into contact with the other, the touching pixels are at once "crushed," while simultaneously altering the structural composition of the image that it is crashing into (and vice versa). In this vein, despite being digital, the work performs traditional materiality by reaffirming the material coherence and durability of pixels as objects unto themselves, capable of affecting structural change.

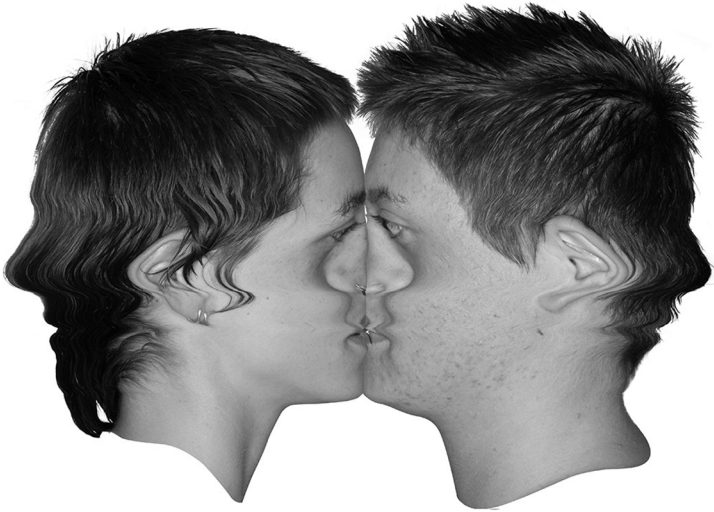


Figure 2: Rollin Leonard, *Crash Kiss*: Guthrie/Ellis (2013) Still frame of HD video.

When asked what materials he used to create *Crash Kiss*, Leonard responded with ‘pixels’. This being said, he was unsure of the ‘materiality’ possessed by pixels, explaining that ‘materiality’ in this case might best be understood as a false metaphor that is treated as though it reflects how things actually are. As Leonard explained, ‘digital materiality’ is:

“useful and helps you understand, but it’s not how things actually are [...] I wouldn’t say that there is a materiality to pixels. I would just say that our sense of interacting with them has some analogous feelings to moving around, like, blocks.”

Whether Leonard feels that the digital is material or not, is irrelevant in this case – though he does later acknowledge that his initial doubts regarding the materiality of the digital may have hinged on too strict a definition of materiality. What is relevant is that once again materiality corresponds to the perceived capacity of the digital to affect an experience of feeling that is disjointed from literal effect. In this case, Leonard highlights the sense that working with digital objects feels like working with physical objects. When we manipulate blocks with our hands, we butt up against the material limits that they present to us; we touch them, they affect us. By linking pixels to blocks, Leonard effectively lends this potential to elicit a sense of touch to the digital, a sense that is inherently bound up with the material capacity of worldly phenomena. As he claims, it is for this reason that the (mis)attribution of materiality to the digital takes place. The formal composition of *Crash Kiss* captures and represents this type of phenomenological encounter, transposing it into a thoroughly digital context. It re-creates the process of pixelated affection, signalling the material limits of individual pixels while attributing touch to the event through both feeling and the selection of faces as its subject matter.

In both of the preceding examples, digital materials provoke a feeling that resonates through the body. This sense of resonance took form in a number of other interviews as sound, or the sonic, became a means of concretizing and making sense of the processual undercurrents of digital phenomena. While auditory sound was a prevalent feature of the interviews, many of the artists reported on sonic features of their work, despite their relative silence. For example, Matthew Plummer Fernandez reported using sound data as a means of encrypting and re-formalizing .stl files. Daniel Temkin and Rosa Menkman discussed glitchworks that represented the structural logic of sound-oriented software programs. And Jon Cates described how an internalization of his early interest in the sonification of data (a result of storing files on playable cassette tapes) continues to factor into the aesthetic of his visual work. In each of these interviews, the artists’ discussion of sound, outside of an analysis of materiality, was returned to late in interviews as a means of illustrating their perspective on the material attributes of the digital. Sound, despite or perhaps because of its own processual form, was framed as a reliable means through which to account the submedial terrain of the digital. Of particular interest in this case were instances in which artists grasped at both the haptic and sonic dimensions of their digital works. Lorna Mills’ installation *Ungentrified*, and her overarching

analysis of the material attributes of her GIF-based video works, were illustrative of this trend.

Initially installed around the three-story atrium at the centre of the Ontario College of Art and Design University, *Ungentrified* (2014), is a large-scale projection-based installation made of six discontinuous and immersive panels, comprising an assortment of GIF collages. The work was highly stylized, replete with animated gimmicks, dithering graphics and base net aesthetics. A mix of heart-shaped crops and hard-edged image objects flickered repetitively across the walls, depicting the deep recesses of the venereal internet. Gathering a slew of click-bait favourites, Mills' memetic material included the chain smoking baby from Indonesia; a squeaking turtle that humps a hiking boot; an augmented pair of bouncing breasts super-imposed on a cat's chest; and a slouching bear scratching its genitalia. These viral hits were surrounded and punctuated by an assortment of other jiggles, "dick pics," bodily fluids, and Ballard-esque collisions. From the dark web to the attention economy, the work positions the body, all bodies, as the fuel that drives the Internet. To this end, its presentation hails the viewer's body, calling it to attention, and sensitizing it to the formal composition of the overarching installation.



Figure 3: Lorna Mills, *Ungentrified* (2014). Exhibition documentation.

While the work is silent and without overt indication of touch, smell or taste, the fleshiness of the scenes paired with the schizo-arrhythmia of the GIFs produces a cacophonous visual melody. The effect is disquieting – the stroboscopic mash of moving images wages an assault on the body as the rate and repetition of the clips conjures a feeling of feverish restlessness. It was precisely this feeling, the intermodal effect of her GIF collages, that Mills drew upon as a means of accounting for their materiality. Brief, looping and rhythmic she commented

that her GIFs are like “visual instantiations of a silent percussive instrument.” Despite being without sound, the installation produces a rhythmic assault that can be heard in metaphor and felt throughout the body. It is this that makes them material. To this end, Mills enacts the body literally and metaphorically as a means of reasserting and attesting to the materiality of the work, the experience of the work, and the digital network that it is intended to represent. Through its sensual capacity, it becomes a medium through which the materiality of the world and the perceived materiality of the digital are bridged.

This latter point was reiterated by artist Brenna Murphy when, during the interviews, she discussed intersections between her sculptural works as they are enacted online, offline and in practice. Murphy claimed outright that she thinks of herself, her body as artist, as a channel that mediates between the digital and the physical. The boundary objects that she creates represent “a zone at the edge between two worlds,” they “map something that’s already there, but that you can’t quite see.” Murphy’s intention is that these objects will serve as meditative tools, encouraging greater awareness of the eminent confluence of the physical and the virtual. For Murphy, the processual intersection between these states points to a durable materialism that she acknowledges is conceptually evasive (hence the meditative undertones to her work). In an effort to account for material continuities, she repeatedly employs sound and sonic metaphor as a means of solidifying that which remains durable despite a change of state. Nowhere was this more apparent than in her discussion of *Central Lattice, Tool Array* (2014), a work that began as an animated video piece, manifested itself as a physical installation at Upfor Gallery in Portland from December 4th 2014 – January 10th 2015.



Figure 4: Brenna Murphy, *Central Lattice, Tool Array* (2014) Exhibition Documentation.

The work is a labyrinthian collection of hieroglyphic shapes, fractal forms and kaleidoscopic images. While many of the components begin as digital captures of nature, there is an other-worldly quality to Murphy’s work. Like ‘Magic Eye’ autosterograms of the past, they evoke a sense that hidden beneath their illusory

surface lies a hidden reality. In order to access the embedded forms, viewers must overcome automatic and routinised ways of perceiving the (visual) world – to relax their focus and allow the virtual image object to reveal itself.

While for some artists the digital mock-up is merely an unrealized draft of the final printed product, as Murphy explained in an interview with The Creator's Project's Johnny Magdaleno, for her neither the physical nor the virtual is primary or privileged. Instead, she claims "the sculptures are models of my net-based works as much as my net-based works are models of my sculptures." In this vein, *Central Lattice*, *Tool Array* was exhibited simultaneously as both a physical installation and an animated video work. While the appearance of the work shifts as it moves between environments, for Murphy these differences simply demarcate different elemental states and versions of the same thing. To this end, she explains that passage between realms is not bound to the dissipation or concretization of materiality, but instead demarcates transitions between confluent and overlapping modes of materialism.

When asked about the material underpinnings of *Central Lattice*, *Tool Array* (in both states), Murphy turned to sound, a sound that is at best absent from the installations, as a means of accounting for the perceived materiality and material contiguity of the work as it moves through states of digitization, manipulation, virtuality and (potentially) re-physicalization. In this vein, sound offers a means of grasping at and concretizing that which remains sensually durable, though perceptibly evasive, throughout these processes. Murphy begins explaining the sonic attributes of her silent visual work in the following quote:

"I draw from sound and music a lot ... the possibilities of how you can manipulate matter as a musician is different than how you do it as a visual artist. That said, you can cross these approaches over. The music that I'm attracted to often has a lot of textural elements that can be looped and woven together. My visual work is obviously related to this. Someone once said that my work is like a visual chant. I thought that this was really accurate."

As a channel between the real and the virtual, Murphy conceives of her practice as one of "attunement." The objects that she creates are intended to provoke a sense of "vibrational sensitivity" in both herself, the practitioner, and in the audience. Functioning as meditative tools, they encourage individuals to recognize points of "resonance" between realms. Of critical importance in this case is Murphy's overarching sense that the sonic continuity that she traces through the works speaks to something material – the materials used to create the work, the materiality that undergirds these materials, and the material delimitations of the virtual realm.

The sonic force of digital matter is central to Sterling Crispin's series, *Data Masks* (2013-Ongoing). Born out of an interest in computer vision and facial recognition technology, the *Data Masks* are 3D modelled and printed materializations of how different software algorithms recognize and log human faces. Ghostly and monstrous in appearance, the masks are intended to expose how the computer sees and identifies humans – visualizing what are otherwise imperceptible and amorphous forms of knowledge.

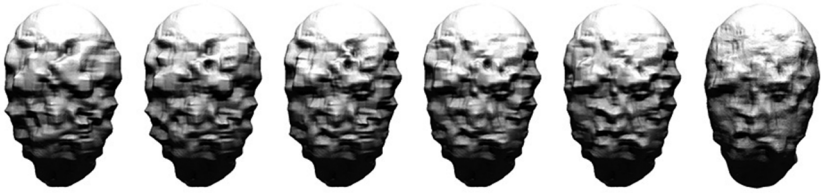


Figure 5: Sterling Crispin, *Data Masks* (2013-Ongoing).

Discussing artificial intelligence more generally, Crispin cites the possibility that humans and computational networks, both sentient beings capable of realizing the presence of the other, are incapable of recognizing the other as such despite their intra-action (Barad 2009). The masks stand as a testament to this – the human face is disfigured, transformed into a field of data that is legible and actionable, but not to those whom it represents. This is precisely a matter of the submedial. In order to grasp at the imperceptible grounds of mediation, Crispin begins by explaining that the masks are intended to enact a form of performative resistance. Like soldiers marching in unison over a bridge, or a soprano singing to a crystal glass, Crispin describes data as having a natural resonant frequency (an inaudible hum) that can be matched (through attunement) and exploited as a means of disrupting or potentially shattering the digital network that undergirds recognition-driven surveillance algorithms. In this vein, while neither the materiality of the *Data Masks* nor the digital is made explicit, sound is conjured as a means of signalling the structural limits and breaking points inherent to the digital. While the masks exist in part on a level that is perceptible to humans, they are encoded and enacted within a frequency range that is imperceptible despite (potentially) affecting material consequence, such as breaking the system. Sound in this case is not only treated as materially contiguous to the digital, but Crispin also suggests that the supports of mediation have the capacity to break as a result of (dis)harmonious vibration. In conversation, this response was not grounded within the physical infrastructures of mediation, but instead it took place at the level of digital data and software.

Synesthesia, Catachresis and a Corresponding Interpretation of Digital Materiality

In each of these cases, artists are drawing upon the senses as a means of grasping at the material undercurrents of digital mediation. While the tendency might be to pass over these gestures as tired attempts to re-embody the digital by “squeeze[ing] all of media through the bottleneck of the human sensory apparatus” (Winthrop-Young 2001: 122), their synesthetic form suggests otherwise. Much like the challenge that aesthesis presents to mathesis, Luigi Russolo advanced synesthesia as a promising method for disrupting the increasing rationalization of human experience (Chessa 2012). By calling upon and privileging a disoriented or spectral order of sensuality, the sensorium divorced from the direct excitations of experience, the artists interviewed effectively named the nameless

(digital materiality – the submedial) through a sense that was sense-less. In order to trace the implications that this trend (and disruptive method) might offer to a more general discussion of digital materiality, I will end this article by developing the notion of “catachrestic synesthesia,” drawing connections between this interpretive strategy, materiality, and the digital.

To be clear, synesthesia refers to the literal or metaphorical union of the senses. While sensory experience always involves a certain degree of cross-modal perception and elucidation (Di Bello/Koureas 2010), synesthesia identifies instances in which the stimulation of one sensory modality automatically and unexpectedly triggers a secondary perception in a different sensory modality (Cytowic 2002; Ward 2008). While highly pathologised through the 19th century, the most prominent experience of synesthesia is through its metaphorical use as a form of poetic augmentation. According to Vivian Sobchack, synesthetic metaphor involves the “volitional use of metaphors in which terms relating to one kind of sense impression are used to describe a sense impression of other kinds” (2004: 68). It brings the senses together in unexpected or counterintuitive ways, in an effort to either augment or fill a perceived gap in language. Both of these potential deployments of metaphor carry different implications.

In the *Rule of Metaphor: Multi-Disciplinary Studies of the Creation of Meaning in Language* (2003), Paul Ricoeur traces the role that metaphors play in creating and discovering new resonances of meaning within language. Within the text he separates the invention of new metaphors into two broad categories, namely metaphors that serve as “the writer’s trope” or those that create new meaning by filling a gap in language. Writers’ tropes amount to “a change or deviation affecting the meaning of a word” (ibid.: 49). These are done as a matter of preference and typically take the place of another routinised term that has proven itself to be lacking in precision or fortitude. “If the metaphorical term is really a substituted term, it carries no new information” (ibid.: 21). Conversely, when the substitutive employment of a metaphor “speaks to a real gap in language, when it is forced, one speaks of catachresis” (ibid.: 51-52). Citing Martine Fournier, Ricoeur explains that:

“[C]ertain ideas lack signs: In general, catachresis refers to a situation in which a sign, already assigned to a first idea, is assigned also to a new idea, this latter idea having no sign at all or no other proper sign within language.” (ibid.: 71)

In this vein, catachresis is when one is forced to draw upon an improper metaphor to fill a perceived gap in language. Drawing a salient connection between catachresis and materiality, Paul de Man (1986) explains that, catachresis identifies, animates and speaks to an inherent materialism that resists figuration (ibid.: 44). It is “the trope which coins a name for a still unnamed entity, which gives face to the faceless” (ibid.). In fact, it is only through catachrestic gestures that materiality can be conveyed at all (Butler 1997: 17). As Derrida has expressed, catachresis annotates the limits of language and matter, locating that which cannot be represented, and identifying it through a metaphor that cannot by

its very definition provide it with a proper name (Rajan 2002). In doing this, catachresis opens and maintains an irreconcilable space, (between matter and cognition,) indirectly delimiting something that is irreducibly itself. What becomes important then is an examination of what “new information” (Ricoeur 2003: 21) can be extracted from the limits of catachresis, particularly as it relates to artists’ synesthetic grasping at digital materiality.

When considered in relation to the metaphorical deployment of synesthesia, catachresis – or catachrestic synesthesia – identifies cases in which one is forced to draw upon the senses in an unexpected and unusual fashion in order to fill a perceived gap in language. In this vein, catachrestic synesthesia does not signal the preferential play of metaphor, but instead works creatively to extend language and experience through an improper triangulation of the senses (Sobchack 2004: 82). This is not a matter of creating new words or hybrid feelings, but instead, catachrestic synesthesia provokes a transformation of approach and understanding, “producing ... new rules of exchange, new values” (Mahon 2007: 44) for how we perceive and conceptualize materiality.

In the case of Sterling Crispin’s *Data Masks*, the materiality and material effect of the work, which operates silently at the level of digital data and is only made apparent as a passing visualization, is described through sound, hum and vibration. Brenna Murphy drew upon similar notions of vibration and attunement as a means of describing the material contiguity of her work as it shifts repeatedly between the virtual and the physical. Rollin Leonard explored the potential materiality of pixels, bits of data expressed as light, in relation to their perceived tactility – or not. In each of these cases, and in the others outlined in the previous section, the materiality of the digital oscillates between the sensed and the non-sensed – a sense that is not (yet if ever) to be sensed. This has two significant consequences for (digital) materiality that I would like to close with. First, we know logically that the masks are without sound and the pixels without direct touch, and yet through the artists’ synesthetic analyses an irreconcilable conceptual space is opened in which digital materiality is framed as an immanent feeling – a generalized sense of digital matter lacking a defined source or object of affection. To this end, catachrestic synesthesia deconstructs the traditional notion of materiality as it relates to stability, enabling an interpretation of matter that does not reduce it unilaterally to physical-underpinning, textual code, or surface effect. It does not only demarcate the insufficiency of language when approaching the processual complexity of digital phenomena, but it also provides a triangulated means of simultaneously recognizing, representing and dwelling within this complexity. To speak of digital matter through synesthetic catachresis is to experience simultaneously its presence and effect, its absence or un-representability, and its conceptual stabilization. Rather than developing an absolute account of its existence and characteristics, catachrestic synesthesia enables a variable approach to digital materiality.

Second, the triangulation of the sensory apparatus identifies feeling as a critical component of digital matter despite the purported retreat of digital mediation into the imperceptible terrain of the submedial. As the artist interviews suggest, this area of feeling may provide a useful point of departure

for maintaining a meaningful connection with digital materiality, despite its dissipating perceptibility. From the technological composition of media devices to their semiotic surface effects feeling provides a means of tracing material coherent between seemingly different states – reinvesting digital media with human meaning and consequences. In this vein, catachrestic synesthesia does not only provide a means of approaching and interpreting of the digital, but it also reasserts the material implications of the digital, locating immanent feeling (literally and metaphorically) as one means through which to (re)engage, conceptualize, critique and intervene in process of mediation – regardless of how fast, deep and imperceptible they are. Rather than reasserting the role of affect in mediation, catachrestic synesthesia employs improper metaphor as a means of deferring the actual (lived experience) in favour of grounded speculation. It is from within this context both speculative and material that the submedial can begin to take form. As the examples of catachrestic synesthesia outlined in this article suggest, central to this task will be accepting modes of conceptualization and representation that are incomplete, contradictory and imaginative.

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