

POETICS OF INTRACELLULAR AND EXTRACELLULAR WATER: A BIOPHYSICAL CONSIDERATION OF BLACK FEMINIST THOUGHT

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Abstract

Poetics is the articulation of aliveness to the extent that it may be written (Quashie, 2021). It is the approximated space that engages the figuring of one's existence in relationality. This rhetoric of being and belonging in relationality supposes that individualism is death in a world that opposes life (Quashie, 2021). Aliveness is the possibility that movement might happen, the force of an alive being. When informed by the forces of fear and degradation, one may be faced with a choice to accept or refuse. In the act of refusing, the potential for something more than the world's divisions hangs in the air. The world is full of fluid existence--being. In the Western scheme of hierarchy and subordination, the categorical devaluation of some beings over others is dictated by the dominant and empowered (Wilkerson, 2020; Wynter, 2003). Poetry poses another way, even the possibility of becoming and undoing (Quashie, 2021). Philosopher Sylvia Wynter suggests that the world needs a new universal way of being, a mode of experiencing in which every form of life is beholden to one another (Wynter & Scott, 2000). Through linguistic loopholes and words of world-making, poetics is the development of theory (Gumbs, 2020). It is an investigation of what is possible and might be.

Keywords

Poetics, Intracellular, Extracellular, Black Feminist

Water in between us, another peer's been executed ...
Our foundation was trained to accept whatever follows
Dehumanized, insensitive
Scrutinize the way we live for you and I
Enemies shook my hand, I can promise I'll meet you
In the land where no equal is your equal
Never say I ain't told ya, nah
In the land where hurt people hurt more people
Fuck callin' it culture

-(Lamar, 2022)

Poetics is the articulation of aliveness to the extent that it may be written (Quashie, 2021). It is the *approximated space* that engages the figuring of one's existence in relationality. This rhetoric of being and belonging in *relationality* supposes that individualism is death in a world that opposes life (Quashie, 2021). Aliveness is the possibility that movement might happen, the force of an alive being. When informed by the forces of fear and degradation, one may be faced with a choice to accept or refuse. In the act of refusing, the potential for something more than the world's divisions hangs in the air. The world is full of fluid existence--being. In the Western scheme of hierarchy and subordination, the categorical devaluation of some beings over others is dictated by the dominant and empowered (Wilkerson, 2020; Wynter, 2003). Poetry poses another way, even the possibility of becoming and undoing (Quashie, 2021). Philosopher Sylvia Wynter suggests that the world needs a new universal way of being, a mode of experiencing in which every form of life is beholden to one another (Wynter & Scott, 2000). Through linguistic loopholes and words of world-making, poetics is the development of theory (Gumbs, 2020). It is an investigation of what is possible and might be.

Poetic Parallels

Study as an informing endeavor may be understood as consciousness and relational praxis, positioned within the politics of looking (Quashie, 2021). This type of looking may be an act of shared relationality that distinguishes differences, perhaps with destructive intent. This study of Black Feminism in water resists the harmful apathetic tendency to cement a category of subordinated being. Collective looking and study is collective consciousness (Quashie, 2021). In an effort to look and speak with intentional care, the state of water studies—or the truth of water—will be referred to as “Water Consciousness.” The state of thriving Black femaleness will be called “Aliveness” (Sharpe, 2016; Quashie, 2021). The conception of Black femaleness is, in itself, a response to a greater wrong enacted in the traumatic construction of a gendered and racialized world (Quashie, 2021). The inherent humanity of Black womxn simply is, but the shifting episteme of Western domination has relegated people with overlapping Blackness and femaleness to the most dehumanized margins at the intersection of race and gender (Crenshaw, 1989; Wynter, 2003). Black womxn are performatively called to claim the right to their human manner of being, only necessitated to the extent that their Aliveness is oppressively denied them (Quashie, 2021). In opposition to the white- and male-dominated world, *Black Feminist Thought* is a place that covers the expanse of what it is to be Alive (Quashie, 2021).

These descriptions of life and the optics of water are not laboratory methods that may be simulated for one’s analysis or comprehensive world understanding. The definitive may not be comprehensive. Further, definitions are revised, redacted, and annotated in an effort to clarify values and sharpen principles of existence (Sharpe, 2016). A comparison between the biophysics of water and Black Feminist Thought is, by no means, a scientific reference point for mathematical functions or those types of experiments that require close-toed shoes and an emergency eyewash station. However, the understanding that may be cultivated by drawing parallels between disciplines may offer a deeper sense of human empathy for the sheer fact that water connects all life (Gumbs, 2020; Cooke & Kuntz, 1974). Participation in this radical experiment of relational empathy is a study in, or a consciousness of, what it is to be Alive (Quashie, 2021). In a world that harbors a hostile aversion to Black and feminized life, Aliveness is already a struggle without the threat of ever-increasing limitation. As a condition of being, one’s limitations have possibility to be reimagined and transformed (Quashie, 2021). A poetic intervention may demonstrate the fluidity of personal boundaries (Quashie, 2021). By the power of poetics, one’s identity need not inhibit their capacity to identify with experience not their own (Quashie, 2021).

Extracellular Water

Chemists and physicists alike have attempted to form comprehensive theories about pure water with partial success and poor representation (Bukowski et al., 2007). These theories are constructed using quantum mechanics, forming understandings of the potential of water that are rendered imprecise by unavoidable numeric approximations. Water molecules are deceptively simple in their atomic structure, yet water is one of the most complex liquids and solids (Bukowski et al., 2007). Larger clusters of water molecules make larger datasets and improve the accuracy of representative mathematical functions, yet mathematical simulations, or digital imaginings, have no idea what to do without being told the exact minutia of their next step.

Laboratory scientists know that mechanisms of molecular jump orient water in the same direction, even as the molecules vibrate and bumble around one another (Bukowski et al., 2007). The self-orienting aspect of water molecules is the key to life because, by organizing together, water molecules may act to order the energies and structures of water-soluble biological matter (Zielkeiwicz, 2005). The life-availing behavior of water is understood and documented. However, key functions such as the dispersion component and intermolecular interaction energy of liquid water cannot be described using scientists’ little number crunchers and tidy models (Bukowski et al., 2007). Water molecules come together with enough strength to make an energetic force field, but it is weak enough to allow for a loose and constantly flowing structure. The same characteristics that create fluid unpredictability simultaneously confound water researchers and produce the perfect conditions for the possibility of life.

Parallels of Extracellular Potential

The world feels the force of water and the force of Aliveness, though its understanding of those powers may not be gleaned through a perfect calculation of their locations. The power of Aliveness and water can be observed in the enactment of breath and the life that they avail (Cooke & Kuntz, 1974; Sharpe, 2016; Quashie, 2021). The fluid and relational conception of the human has been solidified and inhibited by constructed categories of race and gender (Crenshaw, 1989; Wynter & Scott, 2003). Might the world as a collective be able to undo and rethink past models and conceptions of racial and gendered possibility (Quashie, 2021)? An evolving quantum conceptualization of the chemical properties of water suggests it may be done, though not without care and intention (Moblely, 1995). The shifting epistemes of the world indicate the impermanence of rigid ideological frameworks (Wynter, 2003). A permanent structure may be harmful in that it does not give room for radically changing states of matter. This examination of water and Black Feminism serves to celebrate the transformative potential for a better and more

caring world (Sharpe, 2016).

Intracellular Water

The generalizable characteristics of water are not embodied by the forces that are enacted upon these bumbling bridges of relationality. Similarly, Aliveness is drawn in the plurality of oneness, not as the result of a problem in question (Quashie, 2021). Contextualization of water within cells does not define the subject, or even what can be known about the subject. However, the ways in which one might look upon or study intracellular water are altered by the interiority of cellular function (Cook & Kuntz, 1974). Water is the most important solvent in nature, the most suitable molecule for the holding and moving of dissolvable matter (Zielkiewicz, 2005). The variable multitude of conditions within cells alter the movement of water, as electromagnetic push and pull cause some biological components to “stick” and others to “glide.” This kinetic difference from within cells creates a constant osmotic pressure that prevents freezing and facilitates the movement of solutes (Cook & Kuntz, 1974). From DNA to proteins to fatty acids, the cell as the most basic unit of life—while foundational—is not simplistic (Cooke & Kuntz, 1974). Some principles appear to offer a universal narrative, but the only universal truth for all alive beings is that they are and are of water.

Water Consciousness indicates that the practically magical life-giving power of water lies in its potential for hydrogen bonds (Zielkiewicz, 2005). Water molecules are strongly ordered, but they are held together and arranged by the slight polar magnetism of hydrogen bonds. Due to water's unique electromagnetic *interaction* with peptides (the building blocks of proteins), water solutions are the only *environment* in which proteins are possibly organized as the machinery for all cells (Zielkiewicz 2005). The lifetime of a hydrogen bond is incredibly short, seemingly antithetical to the perception of a strongly ordered liquid (Zielkiewicz, 2005). However, the constant movement of water with its simultaneous ability to form a *spatial network* of hydrogen bonds allows it to interact with all biomolecules (Mobley, 1995).

Parallels of Intracellular Potential

Like the hydrogen bonds between water molecules that serve to orient the collective, humanization is an extension of acknowledgment (Bukowski et al., 2007; Quashie, 2021). Those aspects of simultaneously fluid and organized connection that seem diametrically opposed may point the collective towards progress that cultivates Aliveness (Quashie, 2021). The application of imagination to something beyond and other than what is known embodies the action potential of relationality between human subjects (Quashie, 2021). For one seeking to dwell in *Aliveness*, generosity and gift may be the ever-changing betterment and stability of one's own being. A *gift* as an extension of relation may inform the senses for future research, simulation, and consciousness of collective change.

Consciousness and Aliveness are not competing for space in this world (Quashie, 2021). The thriving of one is not positioned in a zero-sum game amongst all because the evolution towards care will not detract from the thriving of another. The degradation of Black and feminized life by denial of the right and burden of being is a colonial project of subordination (Wynter, 2003). Rather than pushing the whole of humanity down by constructing an ideology of sub-humanity, the world may only benefit from acknowledging and celebrating Aliveness in the human capacity of Black womxn (Quashie, 2021; Scott & Wynter, 2000).

Epidermal Reaction to Water

Long-term contact with water affects normal skin barrier properties (Firooz et al., 2015). Though water makes up approximately 80% of the mass in living cells, prolonged exposure to this life-liquid can disrupt cellular function (Cooke & Kuntz, 1974). This is one humanly tangible interaction between intracellular and extracellular water. The biophysical properties of the skin (e.g., pH) are altered, potentially causing irritant contact dermatitis or augmenting the chemical and mechanical stripping of the skin. The skin research conducted by Firooz et al. (2015) emphasizes the detrimental aspects of permeability, but this increase in permeability may be compared to enhanced care for the Aliveness of a world brimming with ever-changing beings (Sharpe, 2016; Quashie, 2021). The skin becomes more likely to absorb substances that come in contact with it (Firooz et al., 2015). In other words, it becomes more responsive. Disruption of lipid structures creates a vulnerability that surpasses the superficial and requires increased attention to intentions of healing, so that the optimal conditions for life and growth may be renewed (Firooz et al., 2015; Sharpe, 2016)

Optics of Water

In the same fashion that Aliveness presents as beings of body, bodies of water dwell on the planet's surface as a variety of body types—virtually all shapes and depths. Both Water Consciousness and Aliveness elusively resist the representation of themselves captured in a laboratory (Bukowski et al., 2007; Gumbs, 2020). Observation in containment is not an accurate representation of natural phenomena. Pure isolation does not occur in nature but is utilized in lab models to generalize the potential of all. The plurality of the singular is in the implication of greater

connection beyond the individual (Quashie, 2021). Like Water Consciousness, the representation of Aliveness ought to be rendered as a subject of energy, capacity, and action potential (Quashie, 2021; Zielkiewicz, 2005). Unlike endeavors in the name of Water Consciousness, Aliveness embraces the abstracting practice of approximation (Quashie, 2021). The world's bodies of water, or water for the looking, are difficult to write mathematical functions for because of the confounding multiplicity of world variables (Mobley, 1995).

Measuring light in the midst of moving water is difficult enough, but calculating the conditions of turbid water may be next to impossible. The provision of explanation is transparency that brackish waters may not offer (Gumbs, 2020). Scientists try to see through water containing high particle density, but perhaps one might find it within themselves to simply respect the turbid waters as they are (Gumbs, 2020; Mobley, 1995; Quashie, 2021). The muddy reality of organic and inorganic particles suspended in aqueous bodies of the world reflects the unknowability of Aliveness in its totality (Mobley, 1995; Quashie, 2021). Can one understand the value of an entity without attempting to map its entirety? Maybe refraining from such an endeavor requires restraint and care from the onlooker, an observer who resists the urge to articulate and explain definitively (Sharpe, 2016; Quashie, 2021).

Parallels of Optical Properties

In imagining a world of Aliveness, one may think like a work of art (Quashie, 2021). Direction and guidance may be a component of artistic subjects, but the enactment of approximation is refusing direction altogether (Quashie, 2021). Within data, there is accountability (Mobley, 1995). For example, knowledge about the optics of water sheds light on the realities of pollution to inform political change—supposedly. The anti-Blackness of the world informs the globalized sense of Aliveness and accountability (Quashie, 2021; Scott & Wynter, 2000). Through poetics, the manipulation of rhetorical norms may help shape the way one understands approximated datasets of un-Aliveness (Quashie, 2021). By understanding the specifically imprecise patterns and predictabilities of the world, Black womxn navigate the unresearched and unspoken phenomena (Quashie, 2021). They dwell in *spaces* of change, even as they evade the hunter on the Archipelago of Otherness, even as they engage in refusal through fugitivity in *brackish waters* (Gumbs, 2020; Wynter, 2003). Linguistic loopholes and poetics may allow one to dwell in the *potentiality* of world-making without knowing it in its totality (Gumbs, 2020; Quashie, 2021).

The oceans may act as a mirror of sorts, reflecting the world's work back on itself. Yet, there are truths that remain clouded or unseen. Turbid or brackish water can offer Aliveness by empowering fugitivity of being and invoking mystery (Gumbs, 2020; Quashie, 2021). At the intersection of race and gender, transformation within Aliveness has helped Black womxn outlive the lies of the oppressor (Crenshaw, 1989; Quashie, 2021). Despite the ghostly predators hunting in brackish water, the interiority of Aliveness is a form of oppression resistance that breathes life into the bodies of Black womxn (Gumbs, 2020; Sharpe, 2016; Quashie, 2021). This may be a difficult task in a world so fixated upon recognition, that it drowns (Gumbs, 2020). One may still gain consciousness of the invisible, a sense of what is beyond sight. This sort of consciousness is a recognition of privacy and unknowability (Quashie, 2021). Some methods of measurement cannot, or should not, be applied to interiority. Sometimes the unknown can be kept mysterious as a method of care (Sharpe, 2016).

Held and Moved

Christina Sharpe (2016) describes Black life lived as “wake work,” which emphasizes perceiving differently what the world looks like and can be. This sort of differentiation is not one of destructive intent, rather it serves to demonstrate the potentiality that is offered by sitting with “life's deathness” (Sharpe, 2016). One of her conceptions of wake work is embodied by presence and care as a celebration of Aliveness. Black womxn demonstrate the power in change and the power of change. By extending outwards in relationality at the same time as imagining a different way of existing, Black womxn shape their own Aliveness of being (Quashie, 2021). Water molecules shape one another and increase their collective stability of orientation, just as the singularity of oneness offers the individual a sense of potentiality (Bukowski et al., 2007; Quashie, 2021).

The Atlantic Ocean in all its breadth holds the biochemical life-essence of kidnapped Africans in residence—human flesh imbued into that salty body of water that may as well be a sea of tears (Sharpe, 2016). The Middle Passage shapes the world still as a pastness that is not yet past (Sharpe, 2016). Alexis Pauline Gumbs (2020) wrote that “there is blood in the water at the limits of our dreams.” Colonialism and genocidal intent may be re(a)d everywhere, all over the world—between the lines and even upon the very faces of people of color (Wynter, 2003). Might the collective imaginings of the world be limited by this narrative written in blood?

Deceptively Simple

Kendrick Lamar (2022) utters, “Fuck callin’ it culture,” in his song “The Heart Part 5”. The “culture” that Kendrick Lamar critiques may be understood as the oneness of Black communities that is embodied by the independent movement of singular persons (Quashie, 2021). Like water molecules in their unpredictable liquid motion, the individuals within the culture may strike against one another when charged by an outside force (Bukowski et al., 2007; Lamar, 2022). The harm that Black communities experience is shaped by external forces of oppression, the

heat that is impossible to bear without sometimes breaking the cohesive surface tension of the collective. Violently bursting forth from relational proximity to others of the same oneness, some molecules dissipate into the air and leave rupture in their wake (Sharpe, 2016). This sort of displacement in Black oneness may be an example of the pain also encompassed within the—

Fluidity of Aliveness

Quashie (2021) asserts, “Experience, then, is a state of suspension in the intensity of presence and possibility, a state of readiness and surrender.” In relation to the body of knowledge around the optics of water, we may understand the experience of being, like particles dissolved in liquid, embraced by the essence of life (Mobley, 1995). One may move through existence suspended amongst the simultaneously variable and homogenous molecules that vibrate with fluidity and potential for the emergence of life. Just as a world of organismic possibility is of water, humanization is of the Aliveness of Black womxn (Cooke & Kuntz, 1994; Quashie 2021). In the very midst of Aliveness, Black femaleness embodies the prerequisites for a life of being and becoming (Quashie, 2021).

Kendrick’s (2022) rejection of the culture in its present state is his own readiness for possibility. The imagining of more than what is held in the now may be the start of every potential relationality. His exclamation of refusal, “Fuck callin’ it culture,” is a punching short critique. This protest may be poetically misheard as a condemnation, or an unveiling of hegemonic technique. Kendrick does not explicitly name those epistemic roots of global domination (Wynter, 2003). However, this new phrasing points to the origins of gendered oppression and racialization. The new ear may understand his line differently, a more specific rebuke invoked by brash mondegreen. This exclamation may evoke an image of the ghostly hunter who preys on the Other—truth of that New World vulture may be heard in the misheard phrase: “Fuck colony culture!” (Lamar, 2022; Wynter, 2003).

Annotated Bibliography

Bukowski, R., Groenenboom, G. C., Szalewicz, K., & Van der Avoird, A. (2007). Predictions of the Properties of Water from First Principles. *Science*, 315(5816), 1249-1252.

This study was conducted by researchers from the University of Groningen in the Netherlands and the University of Delaware. Bukowski et al. used simulations to predict the behavior of water molecules. The article described properties such as dielectric constant, self-diffusion, and liquid water structure. The simulated structure of liquid water and its first principles were computed using quantum mechanical calculations. No empirical or experimental data were implemented in the simulation. The results of the study were in agreement with experimental data, indicating some potential for application to predict the properties of more complex systems. This source and Zielkiewicz (2005) are applied to sections discussing the extracellular behavior of water. It also acts to inform the distinction between intracellular and extracellular water. This article put into conversation with Quashie (2021) displays parallels between the study of water and the poetics of being.

Crenshaw, K. (1989). Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics. *University of Chicago Legal Forum*, 1989(1), 139-167. <http://chicagounbound.uchicago.edu/uclf/vol1989/iss1/8>

In this article, Kimberle Crenshaw challenges the singleminded feminist and antiracist frameworks in addressing discrimination. As an early critical race theorist, she impactfully shaped the development of critical race theory as a multi-dimensional analysis of power. Her argument asserts that existing lenses of race and gender are not sufficient to account for the experiences of Black women who face multiple aspects of oppression at the same time. She argues that intersections of oppression compound to create experiences of discrimination outside of the solely feminist and solely antiracist frameworks. She describes legal and political instances where Black women fell through the cracks. She argues that an intersectional approach must be undertaken to address the overlooked and nuanced forms of discrimination that women of color face. The intersectional approach is now widely used and applied outside of critical race and critical legal studies. Her ideas about intersectional oppression inform the descriptions of Black womxn's unique struggle in this paper.

Cooke, R., & Kuntz, I. D. (1974). The Properties of Water in Biological Systems. *Annual Review of Biophysics and Bioengineering*, 3(1), 95-126.

Cooke and Kuntz describe the properties of water as they manifest in biological systems. They address the characteristics of water that make it vital to biological processes: high polarity, hydrogen bonding, and water's potential as a solvent. These properties are used to examine the ways biological matter interacts with water. Proteins, nucleic acids, and lipid membranes are stabilized through their interactions with water. Temperature, pressure, and external environmental factors alter the properties of water in biological systems. They emphasize the importance of understanding the chemical properties of water to foundationally inform an understanding of the mechanisms of life. This article is cited extensively. Put into conversation with Black Feminist Thought, parallels may be drawn between the aqueous prerequisites of life and thriving Black femaleness.

Firooz, A., Aghazadeh, N., Rajabi Estarabadi, A., & Hejazi, P. (2015). The Effects of Water Exposure on Biophysical Properties of Normal Skin. *Skin Research and Technology*, 21(2), 131–136. <https://doi.org/10.1111/srt.12167>

Firooz et al. conducted a skin study to help examine its biophysical properties when exposed to water. Participants in the study were measured for skin parameters after their forearms were exposed to water for various amounts of time. Parameters included skin surface pH, elasticity, water loss, and hydration. Effects of water exposure were found to be dependent on the duration of exposure and the temperature of the water. Prolonged exposure increased skin hydration and decreased skin pH and elasticity. The findings of this study address the importance of maintaining appropriate skin hydration levels. What is called “Epidermal Reaction to Water” in this paper is a reframing of the pathological effects of water exposure to consider the increased responsiveness and sensitivity of the skin. Within this section, parallels are drawn between Sharpe's (2016) concept of care and heightened skin permeability.

Gumbs, A. P. (2020). *Undrowned: Black feminist lessons from marine mammals*. AK Press.

This book written by Alexis Pauline Gumbs is an exploration of poetics and the intersection between social and ecological justice. Parallels between marine animals and resistance are drawn to examine the ways that marine mammals navigate oppressive systems. Gumbs utilizes a critical lens, the power of poetry, and an intimate telling

of personal narrative. She creates a vision of radical empathy and solidarity by applying insights to the struggle of Black womxn. She addresses environmental racism, community, and transformative justice. Gumbs' conceptions of brackish waters and fugitivity are put into conversation with Quashie's (2021) poetics of being within this paper.

Mobley, C. D. (1995). The Optical Properties of Water. *Handbook of Optics*, 1(43), 43.

This article may seem dry, but it is a fascinating exploration of the properties of one of the most unique substances on Earth: water. Mobley describes the optical properties of water, examining how it interacts with light and other electromagnetic radiation. Confounding world variables that inhibit the calculations of water optics include the suspension of organic and inorganic particles, wherein clouded water is considered turbid. He addresses absorption, scattering, and reflection, and discusses how these properties can be measured and analyzed in various applications. These include environmental monitoring, underwater imaging, and remote sensing. In this paper, environmental monitoring is placed in contrast with Gumbs' (2020) conception of brackish waters and fugitivity. "Brackish water" and "turbid water" are used interchangeably in this paper.

Lamar, K. (2022). The heart part 5 [Song]. pgLang; Top Dawg Entertainment; Aftermath; Interscope Records.

In "The Heart Part 5," Kendrick Lamar explores themes of love, relationships, and power dynamics in a society that is still grappling with issues of gender inequality and sexism. Drawing on his own experiences and those of others, Lamar offers a nuanced and thought-provoking social commentary. His poetic and introspective style gives voice to six Black men as a reflection on the ongoing racial struggle for self-determination and justice. He critiques the "culture," which goes unspecified and is applied vaguely in multiple contexts to shape an understanding of gender, race, and power. He uses his music to address cultural identity and the empowerment of marginalized communities. The application of Lamar's lyrics lean into the aqueous theme of this paper and address systemic oppression.

Quashie, K. (2021). *Black aliveness, or a poetics of being*. Duke University Press.

In "Black Aliveness, or A Poetics of Being," Kevin Quashie offers a poetics-centered exploration of Black art, literature, and culture. He argues that by centering the vibrancy and aliveness of Black existence, we can create new possibilities for Black liberation. Quashie examines how Blackness has historically been constructed as a site of death, trauma, and pain, and offers an alternative vision that centers on the power of poetics. Drawing from a range of cultural texts, Quashie offers a nuanced and interdisciplinary analysis of the ways in which Blackness is expressed and experienced through language, gesture, and embodied performance. Through his poetics-centered approach, Quashie invites readers to engage with the beauty and power of Black art and culture and to reimagine what is possible in the ongoing struggle for Black liberation.

Sharpe, C. (2016). *In the wake: On blackness and being*. Duke University Press.

"In the Wake: On Blackness and Being" by Christina Sharpe is a work of Black feminist theory that highlights the importance of water in understanding the ongoing impact of slavery and the transatlantic slave trade on Black life. Sharpe explores the ways in which water is a key element in shaping the history and experiences of Black people. She argues that water is a site of violence, death, and trauma, as evidenced by the horrific conditions of the Middle Passage and the ongoing crisis of Black drowning. At the same time, Sharpe also emphasizes the life-giving and transformative power of water and breath. Through her analysis, Sharpe invites readers to engage with the complex and often contradictory ways in which water shapes Black life and to consider the ways in which water can be a site of both oppression and resistance.

Wilkerson, I. (2020). *Caste*. Random House Publishing Group.

"Caste" by Isabel Wilkerson is an extensive exploration of caste systems throughout history, with an emphasis on their influence in the United States. Wilkerson presents evidence from various historical, sociological, and cultural sources to argue that caste is a fundamental factor in determining social hierarchies, resource allocation, and access to power and opportunities. She also examines how caste has been used to justify oppression

and exploitation, and how it has been challenged and resisted by marginalized groups. Through her analysis, Wilkerson underscores the legacy of caste systems in shaping contemporary social inequalities and advocates for dismantling caste-based systems of oppression to foster a more equitable society. This paper features Wilkerson's ideas about hierarchy in conversation with Sylvia Wynter's (2003) conception of the coloniality of being.

Wynter, S., & Scott, D. (2000). The re-enchantment of humanism: An interview with Sylvia Wynter. *Small Axe*, 8(1), 119-207.

"The re-enchantment of humanism: An interview with Sylvia Wynter" is a transcript of an interview with Caribbean Black Feminist and philosopher, Sylvia Wynter. She discusses the limitations of Western humanism, particularly in terms of its colonialist origins and its exclusion of non-Western cultures. Wynter proposes an alternative to humanism that takes into account the diversity of human experiences and recognizes the colonial history that has shaped our understanding of the world. The interview provides a perspective on the legacies of colonialism and the domination of Western knowledge production.

Wynter, S. (2003). Unsettling the Coloniality of Being/Power/Truth/Freedom: Towards the Human, After Man, Its Overrepresentation—An Argument. *CR: The New Centennial Review*, 3(3), 257-337.

Sylvia Wynter's "Unsettling the Coloniality of Being/Power/Truth/Freedom: Towards the Human, After Man, Its Overrepresentation—An Argument," is a passionate and urgent call to rethink the very foundations of our understanding of the human. Wynter exposes the traumatic ways in which colonialism has shaped the world's conceptions of what it means to be human, relegating non-European peoples to subhuman status. Through her analysis, she unveils the constructed nature of the human as a category and its role in perpetuating systems of oppression. She offers a radical vision of a new, more inclusive, and just understanding of humanity, one that centers the experiences and epistemic knowledge of those who have been excluded from the dominant discourse.

Zielkiewicz, J. (2005). Structural Properties of Water: Comparison of the SPC, SPCE, TIP4P, and TIP5P Models of Water. *The Journal of Chemical Physics*, 123(10), 104501.

Zielkiewicz's (2005) article in *The Journal of Chemical Physics* provides an analysis of the structural properties of water, comparing four computational simulation models of water. The study describes the importance of understanding the molecular structure of water and how it affects its properties, including its ability to form hydrogen bonds and its behavior in different environments. By comparing different models of water, Zielkiewicz expounds on the complexity of water's structure and the need for continued research in this area.