

**Incorporating Colonial Realities in Problems of Sustainability and Water Governance:
The Case of Palestine-Israel**

POL 7979 – Major Research Paper

Submitted by: Chloé Dobbins

Presented to: Ryan Katz-Rosene (Supervisor) and Nadia Abu-Zahra (Second Reader)

In partial fulfillment of the requirements of the degree of Master of Arts in Political Science

School of Political Studies, University of Ottawa

Fall 2022

Acknowledgements

Without the guidance and encouragement from my professors, friends and family, completing this master's degree would not have been possible:

First, I owe great appreciation and thanks to my Supervisor, Professor Ryan Katz-Rosene, for his detailed feedback and patience with me throughout the writing process and my academic journey thus far. This paper has proven to be quite the challenge, but Professor Katz-Rosene words of encouragement and curiosity of this paper are what carried me through.

Second, I want to thank Professor Nadia Abu-Zahra for her time as the Second reader of this paper and for her dedication to Palestine in her academic work. Also, I want to thank Professor Jacqueline Best for allowing me to escape the complexities of this project in the Summer of 2021 with a Research Assistantship and for her kind remarks about the strengths of my academic inquisitiveness.

Third, I want to thank my family, as well as the group of inspiring women I call my friends, for their unconditional support of me and my eagerness to learn. Thank you to the school of political studies for allowing me to undertake this degree. Though completing this master's degree was done online, it does not take away from the enriching and one-of-a-kind experience which I am so very thankful for.

What felt like a magnetic pull to the Palestinian struggle, I hope I have contributed in some way and that it is accepted as a form of allyship.

It is to Palestine, and those mentioned that I dedicate this paper.

Abstract

This major research paper identifies how the current state of the literature on hydropolitics, which theorizes and conceptualizes ways to establish inter-state cooperation over water governance, is not cognizant of colonial realities. The case of Palestine/ Israel is used as a case for illustrating how bolstering a more nuanced approach, which incorporates colonial realities can improve how peace through cooperation can be achieved in the region. I aim to answer this research question: *What would it mean to analyze Palestinian-Israeli sustainable water governance through a decolonial ecology approach?* To answer the research question this paper employs a postcolonial approach to theorize what a decolonial ecology approach to Palestine/ Israel hydropolitics might entail, and thus how this analysis improves how the problem is understood. Further, the paper argues that a postcolonial ecology approach may be best equipped to theorize structural issues of the problem, while simultaneously searching for ways to decolonize contemporary efforts of securitizing water under conventional sustainability frameworks. This paper concludes with a discussion section that evaluates the relevance of the findings and encourages further research on competing processes such as (neo)colonialism and sustainability.

Table of Contents

INTRODUCTION	5
SITUATING THE PROBLEM IN THE LITERATURE.....	6
HYDROPOLITICS : NOT COGNIZANT OF COLONIAL LEGACIES.....	6
SHIFTING ANALYSES AND PRACTICES FROM POSTCOLONIAL TO DECOLONIAL	9
THEORY AND METHOD	11
FINDINGS/ RESULTS.....	13
CROSS-POLLINATION: POSTCOLONIAL AND ECOLOGICAL THEORY	13
EXPOSING COLONIAL LEGACIES	17
EXPOSING THE INHERENT UNSUSTAINABILITY	27
EXPOSING THE CONDITION OF OUR ENTANGLEMENT	37
DISCUSSION	42
FINDINGS / SIGNIFICANCE OF FINDINGS	42
FUTURE RESEARCH AGENDA	44
CONCLUSION.....	46
REFERENCES.....	48

Introduction

The origins of the Palestinian-Israeli “conflict” can be traced back to the Zionist plans for Israel and Israel’s occupation of Palestine (Shlaim, 2010). Markedly, Israel’s control of the land also extends itself on the natural water sources that flow through and that exist beneath the territories they occupy. Through the last several decades and today, the case of Palestine-Israel continues to serve as a microcosm of greater theoretical and empirical concerns relating to colonialism and hierarchy, dispossession and dislocation, and, the rigid binary that characterizes the case: conflict or cooperation. What permeates the Palestinian-Israeli case today is competing processes of continued (neo)colonialism and an acute priority for environmental sustainability. Despite the apparent consequences of settler colonialism in Palestine as a root cause for political struggle, there are notable omissions and even denials of ongoing settler colonialism in Palestine as having a serious impact on sustainability and water governance control in the region. Some academics (such as Lautze & Kirshen, 2009) suggest that Israel’s increased control of the water sources may ultimately dictate the prospects of Palestinian survival. Therefore, the goal of this major research paper is to draw on and contribute to the literature on Palestinian-Israeli hydropolitics, in an effort to address a gap in the research and underscore the relevance of incorporating colonial realities for problems of unsustainability. In order to achieve the goal of this major research paper, this paper is guided by the following research question: *What would it mean to analyze Palestinian-Israeli sustainable water governance through a decolonial ecology approach?* To answer this research question, the paper begins with situating the problem in the existing literature with a literature review. Following the research problem, I outline the paper’s theoretical and methodological approach. Then, I use the theoretical and methodological approach to theorize what a decolonial ecology might look like and apply it to the Palestinian-

Israeli case. The paper concludes with a discussion on the relevance of applying a decolonial ecology approach to the Palestinian-Israeli case, and in turn, answers the research question. Finally, given the complexity of the topic, recommendations are made for a future research agenda.

Situating The Problem In The Literature

This research paper draws from and contributes to the literature on Palestinian-Israeli hydropolitics and global water sustainability governance. In the case of the Palestinian-Israeli hydropolitics, the literature has mostly failed to consider critical areas of the relationship between Israel and Palestine as one rooted and maintained by colonialism. This includes the omission of the geopolitical conversation about Israel's occupation in Palestine and its effect on how this type of power relation is not accounted for in the efforts to establish cooperation in water governance. In terms of how policymakers approach global water sustainability governance, there is growing necessity to foment a shift from *postcolonial perspectives* to *decolonial* practices for problems of unsustainability. If in fact cooperation is needed to achieve sustainability in the region, then decolonizing relationships between actors is imperative to this success. I address both these gaps in greater detail here:

Hydropolitics : Not Cognizant of Colonial Legacies

The literature on Palestine-Israel hydropolitics is not cognizant of its colonial history. Mainly, there is a disconnect between the dominant IR framings of the issue and the structural influence of colonialism. In the late 1980s, the growing threat of climate change as an exacerbating factor to already existing sociopolitical tensions in the Middle East and North Africa (MENA) region highlighted that the legacy of the Palestinian-Israeli "conflict"

undermines its ability to address the threats of climate change (Brown & Crawford, 2009). This type of political complexity initiated the broadening of security studies to explore hydropolitics, which divided the subfield in two discourse camps: the water security discourse and the water rationality discourse (Julien, 2012, p.46). The former, developed in the 1980s and oriented towards studying conflict reflects a realist approach to IR (for instance, Gleick, 1993; Lowi, 1993; Homer-Dixon, 1999). The latter, developed in the 1990s as a response to the grim picture of the water security discourse is grounded in liberal IR theory, and is thus aimed toward the political possibilities awarded through inter-state cooperation (see, for instance Allan & Mirumachi, 2010).

First, the water security discourse, while not monolithic in its theoretical postulations, concerns itself with power relations and conflict between states, areas of which include the inevitability of resource capture, aggravated conflict and ultimately an uneven distribution and allocation of water resources (Homer-Dixon, 1994). Though Homer-Dixon (1994) does not frame conflicts as “resource wars”, he suggests increased military presence will be widespread in an effort to control and securitize natural resources like water. Academics such as du Plessis (2019), Gleditsch & Urdal (2002) and Jury (2007) validate Homer-Dixon's (1994) observations and have pushed this analysis further to expose shortcomings of Homer-Dixon's realist framework of thinking about resource scarcities. Gleditsch & Urdal (2002) emphasize that Homer-Dixon's(1994) theories on the link between population, environment, and violent conflict perpetuates the widespread pessimism about population growth on environmental degradation, which continues to plague the approach to policies that the sustainable development goals wish to achieve (p.283). Further, Lowi (1993;2008) argues that the likelihood of war should not be a core focus due to the zero-sum outcome of water wars as they are far too futile. Rather, Lowi

(1993) introduces a more relevant observation that sets out to measure the position, power and potential (like in Zeitoun & Warner, 2006) to determine the status of a “hydrohegemon”. For Lowi (1993) the omissions of conflict are not present as forced cooperation is the most common outcome when a hegemon possesses favourable geographical position at the water source, heavier power ratio and is highly dependent on the water resource. Drawing from Keohane’s (1989) hegemonic stability theory, Lowi (1993) and other academics (Zeitoun, 2008; Zeitoun et al., 2011; Selby, 2003a) highlight the scarce choices for non-hegemonic states other than compliance to the agenda set out by the “hydrohegemon”. Despite this observation, colonial power relationships are absent from these formulations. Julien (2012) characterizes the water security discourse as one founded on geographical and power determinism, yet there is a persistent denial of colonial and neocolonial components, which directly inform a hydrohegemon’s geographical position and power. There is no evidence that the water rationality discourse incorporates colonial and neocolonial contexts of the cases they wish to develop.

Second, the water rationality discourse moves beyond the strict confines of the concept of “water wars” and subscribes to the idea that states are rational actors, and that when they are experiencing issues of water scarcity, they often work together to find a solution (Julien, 2012; Trottier, 2004). This discourse has informed the approach to finding solutions and is embedded in contemporary efforts like the Sustainable Development Goals’ targets and indicators. In this way, the actors who control water but refuse to share it unreasonably risk a huge opportunity cost and must strive to mitigate this through cooperation (Tarlock, 2008, p.713). This is often done through cooperative structures like regimes or institutions, yet while they avoid the geographical and power determinisms of the water security discourse, it replaces these determinisms with economic ones (Julien, 2012, p.51; Allan & Mirumachi, 2010). By enclosing cooperation in a

structure like the market, cooperation remains flawed because it denies the relevance of the structural barriers in place for colonized and victimized groups. Further, it reinforces power imbalances and that the absence of conflict implies peace. While Selby (2003a; 2003b) critiques how the mainstream literature is not cognizant of colonial legacies in mainstream literature of hydrogeopolitics, he begins to tease the importance of reflexivity and multiplicity within hydrogeopolitics to promote a less rigid and confining alternatives. Selby (2003b) states that:

state behaviour is not reducible to (or explainable as the product of) objectively given interests; state interests, policies and actions are rather the function of structures, struggles and relations that emerge and change over time, and that must therefore be studied with an eye not to universal truths, but to historical specificities. (pp. 63)

In this way, this paper aligns with Selby's (2003b) observation that the literature of Palestine-Israel hydrogeopolitics is limited in its scope of understanding the problem of water governance and sustainability in a holistic way (Ellis, 2020). Hence, the influence of colonialism on areas such as environmental changes to geography, social influence on barriers to access potable water, and the economic limitations that make Palestine dependent on Israel's water capture and production of water. Given the lack of consideration for colonial influences on hydrogeopolitics in Palestine and Israel, conceptualizing viable solutions and striving for cooperation becomes an increasingly challenging endeavor.

Shifting Analyses and Practices from Postcolonial to Decolonial

There is a growing need for postcolonial analyses to engage with problems of colonialism in a decolonial way. It is not sufficient to study the lack of postcolonial analyses in hydrogeopolitics, there must be efforts to ask the question: "so what?" and challenge conventional ways of

thinking and solving a problem. McClintock (1992) uses the Palestinian case as an example of reframing how colonialism is understood as a continued influence rather than a condition of the past. Similarly, Gregory's (2004) *Colonial Present*, provides an example of McClintock's (1992) view that there is no "post" in "post-colonialism" by illustrating how Israel's fusion of settlement, security and sovereignty are imperative to Israel's ability to grow and be a dominating presence in Palestine. Additionally, Mignolo (2021) develops this further arguing that solutions for the Palestinian-Israeli "conflict" cannot stem from the same frameworks that created the conflict. Rather, peace and cooperation require *decolonizing governance* (p.156). Decolonizing governance embodies what Busbridge (2018) calls reframing efforts for peace and cooperation as "a project of decolonization" which aims to address problems structurally (p.93).

From the failed Oslo II Peace Accords in 1995 to today's Sustainable Development Goals (SDGs) targets and indicators, there is an alarming need for problem-solving of systemic limitations that obstruct the success of such undertakings. What I mean by this is that analyses of the SDGs, for example, must strive to apply decolonial approaches as a way to bolster sustainability itself. Stein (2019) explains what doing so might entail by developing a tool to expose the denial of colonialism as the cause of unsustainability, in what she labels as the "modern-colonial-habit-of-being" (p.209). Stein (2019) summarizes her tool of analysis as:

- (1) denial of the systemic colonial violence that underwrites the maintenance of the dominant system (which is premised on racialised exploitation and expropriation);
- (2) denial of the inherent ecological unsustainability of the dominant system (which is premised on unending growth and consumption that ignores the limits of the planet);
- and (3) denial of the condition of our entanglement (which is premised on framing

relationality as a willed choice rather than a fact of our collective existence on a finite planet). (pp. 209)

The use of such a tool for the Palestinian-Israeli water conflicts can expose how contemporary efforts to address unsustainability in the region, overlooks colonial power relationships which ultimately makes the prospect for sustainability fail (Hussein et al., 2018, McCracken & Meyer, 2018, Michaels, 2015). Thus, in order to address the ethical and ecological issues of making water governance in Palestine-Israel sustainable, we need to explore what it would mean to analyze this problem through a decolonial ecology approach.

The research problem arising from the literatures on Palestine-Israel hydropolitics and global water sustainability governance is twofold: the hydropolitics literature is not cognizant of colonial realities in Palestine, and efforts to integrate postcolonial analyses on issues of sustainability in Palestine/ Israel must do this in a *decolonial way*. It is therefore important to ask *what would it mean to analyze Palestinian-Israeli hydropolitics through a decolonial ecology approach?* This research question responds to the lack of postcolonial analyses in contexts that directly need them, and also provides a myriad of possibilities for future research on this topical issue, but also other contexts that merit this exploration. In the following section I will outline my theoretical approach and methodology that will best equip me to answer my research question.

Theory and Method

Postcolonial analysis as a critique and practice strives to fill the gaps of untold and unseen histories. Mainly, it draws attention to the relevance of colonial powers and perspectives of colonized peoples (Sylvester, 2017). In some instances, postcolonial analysis goes further to critically engage with the meaning of the term post-colonialism itself, suggesting that

colonialism never ceased to exist, but rather continues to systemically influence the fabric of society today (McClintock,1992). A notable thinker of Postcolonialism, and of the Palestinian experience is Edward Saïd. There are two core themes in Saïd's (1992;1995) works that directly inform my research question: the dispossession of land, and the exclusion of Palestinian voices in academic and non-academic contexts (Saïd ,1995). While Saïd's focus in *Orientalism* is concerned with the textual and discursive analysis of "othering", he also emphasizes the generational presence of colonialism's lasting influence in modern institutions and contemporary society (Saïd, 1993).

In my research on the politics of water sustainability in Palestine-Israel, I reached a significant impasse. This impasse was rooted in my instinct to look at the water conflicts through a postcolonial and ecological gaze, a joint approach which is largely missing from literature on hydropolitics and sustainability studies. Therefore, this paper will not undertake an empirical understanding of the conflict, but rather explore a conceptual way of framing the problem. In Jaakkola (2020), the author discusses how conceptual papers can "bridge existing theories in interesting ways, link work across disciplines, provide multi-level insights and broaden the scope of our thinking" (p.18). In essence, this paper will consist of bridging the postcolonial with the ecological and performing what Trujillio (2016) describes as a "cross-pollination" of both of the epistemological and ontological underpinnings of postcolonial and ecological theory (p.40). The justification of outlining a postcolonial ecology approach directly responds to the lack of postcolonial analysis in the hydropolitics literature on Palestine-Israel, and of the need to incorporate an ecological approach to inform a problem of unsustainability. Ecological exploitation and dislocation, like with water resources, have consequences on the human experience at the center of their environment (Olaoluwa, 2012). By combining the postcolonial

ecology that stems as a critique in English literature, with the intention of decolonizing spaces, the literature can achieve a less normative approach in postcolonial ecology to one that makes the distinction between theory and observation to one of theory and *practice* (Busbridge, 2018). Accordingly, this paper will employ a postcolonial gaze to address both parts of my research question, *how to better incorporate colonial realities and how to push this postcolonial analysis to make it a decolonial practice*, by addressing the gap in mainstream literature on the Palestinian-Israel water disputes and building on this further to address it in a decolonial way.

While I have outlined that my theoretical approach is a postcolonial one, answering my research question will be done in two parts: I will outline what a decolonial ecology approach to hydropolitics could look like in the context of Palestinian-Israeli hydropolitics. To do this, I will make use of Trujillo's (2016) "cross-pollination" of ecological and colonial theory and Stein's (2019) analytical tool of "three primary denials". This will consist of theorizing what a decolonial ecology approach looks like. Then, I will apply the decolonial ecology approach to the Palestinian-Israeli water disputes to answer my research question. I will illustrate how sustainability and ecological analyses might also be enhanced if they took decolonial approaches in this way. By using the Palestinian-Israeli case, it will make visible the inconsistencies of water sustainability governance in the region, in an effort to promote how efforts for sustainability cannot be met without adequate cognizance of neocolonial contexts in which they operate.

Findings/ Results

Cross-pollination: Postcolonial and Ecological Theory

Incorporating colonial realities in hydropolitics first means that there must be a shift from the leading theories that dominate the literature. Though the realist lens (water security discourse) and the liberal lens (water rationality discourse) provide compelling ways to view the

problem of water governance in Palestine-Israel, there is insufficient reflexivity within these rigid debates in the literature (Julien, 2012; Furlong 2006). The lack of reflexivity explains how the literature in hydropolitics lacks nuance and attention to historical specificities because the core concerns of hydropolitics as a whole have been to study the likelihood of inter-state conflict or cooperation (McCracken & Meyer, 2018). In fact, the lack of explicit theorization in conceptual works like Zeitoun & Warner's (2006) *Hydrohegemony framework* makes it difficult to distinguish the difference between realist and liberal interpretations of hydropolitics (Julien, 2012). This makes it unclear how hydropolitics should be understood and in turn how solutions are internalized in contemporary efforts to address them. As a proposed solution to the narrow debates in hydropolitics, Julien (2012) advances a constructivist hydropolitics which uses the Copenhagen School to show how transboundary water management can be "(de)politicised, (de)securitized or (de)violised" (p.59; Buzan et al., 1998). As a way to promote reflexivity and multiplicity, Julien (2012) suggests that the field of hydropolitics should engage with theories that well-acquainted with the various sociopolitical and environmental contexts in which hydropolitics exist (p.62). Though Julien's (2012) argument for a constructivist politics may introduce ways to typologize different approaches based on their respective contexts, I believe the Palestinian-Israeli case calls for a postcolonial analysis which incorporates ecological perspectives to best view and then search for ways to fix a problem of (un)sustainability.

Postcolonial ecology as a theory is mainly utilized in two separate fields outside of the parameters of political science and IR. It is a slowly growing framework in parts of postcolonialism (for instance, Nayar, 2010 and Joshi, 2021) and critical literature studies (such as, Trujillo, 2016 and Olaoluwa, 2012) used to explore the relevance of the consequences of colonialism on the environment. The shift I will make between postcolonial ecology and

decolonial ecology, is guided by my view that it is not sufficient to view the water governance and resource management with a postcolonial perspective. Rather, we must task ourselves to create pathways to decolonize these spaces in an effort to promote rewriting these wrongs by systemically changing the course of the uneven power relationship between Israel with Palestine and her other neighbors. Thus, this section theorizes what a decolonial ecology approach might look like.

When performing a crosspollination between the postcolonial and the ecological, Handley (2011) underscores the importance of recognizing that “colonialism degrades cultures and ecosystems alike” (p.17). In this way, postcolonial ecology attempts to illustrate the influence and legacies of colonialism in ecological contexts by exploring concepts of ecological exploitation and dislocation as having a direct impact on the human experience (like in Handley, 2011 and Olaoluwa, 2012). Given that postcolonial ecology stems from a branch of English literature studies, most of the literature performs literary rather than political analyses of stories and lived experiences. However, postcolonial ecology presents the rich opportunity to move beyond English literature and begin to draw how it can be used in political contexts to advance decolonial outcomes. Nayar (2010) does this well by performing literature reviews of various academics that implicitly analyze the relevance of viewing contexts with a postcolonial and ecological gaze (like Nixon, 2011; and Davies, 2018). Nayar (2010) approaches the intersection between colonialism and ecology through the field of geography. Hence, Nayar (2010) is primarily interested in the various ways in which colonialism has altered the *sense of place* of marginalized groups (p.159). Approaching the *sense of place* in a decolonial way does not mean to idealize the precolonial land which may promote xenophobic sentiments, but to expose how (neo)colonial power controls the ecological contexts in which they inhabit (Nayar, 2010).

There is a general consensus within the existing postcolonial ecology literatures, which can be illustrated by the approach's interest on striking a balance between Ecocriticism's critique of anthropocentrism and postcolonialism's concerns for social justice (Trujillo, 2016, p.48; Handley, 2011). On one hand, there is growing consensus that anthropocentric climate change does not accurately reflect the consequences brought about by colonialism and Eurocentric power wielding of the environment and its natural resources. For example, Nayar (2010) suggests that the postcolonial ecology should strive to critique the ways in which colonial conservation policies operate and the critique land-ownership laws and policies. Similarly, Stein (2019) says that equating all of humanity as responsible for climate change, erases the opportunity for colonial responsibility in this geological epoch (p.202; Gomez-Barris, 2019).

On the other hand, postcolonialism's concerns for social justice parallel what Saïd refers as dislocation and dispossession of land along with the "Permission to Narrate" (Chomsky & Pappé, 2015, p.14). For example, Nayar (2010) says that postcolonial ecologies should strive to raise the concern around the experiences of internally displaced peoples and how the intersections of poverty and ecological issues are proof of environmental racisms (see Nixon, 2011, for example). Ultimately, postcolonial ecology may serve as an adequate framework to study Palestinian-Israeli sustainable water governance issues, though it may fall short in *addressing* the technicalities of inter-state water governance itself.

However, Stein (2019) offers a way to think of substituting postcolonial ecology with *decolonial* ecology. Stein (2019) implicitly suggests that approaching the critiques of anthropocentrism and concerns for environmental justice in a decolonial way would mean to strive to expose three core elements: (1) colonial legacy and neocolonial contexts, (2) inherent ecological unsustainability, (3) the structural condition of our entanglement.

These markers reflect what Joshi (2021) argues that postcolonial ecology frameworks can serve as a vessel for a “counterhegemonic struggle” (p.187). In my view, a decolonial ecology approach would strive to expose these three elements, which may provide a more nuanced approach to contemporary efforts to achieve sustainability. While this approach does not have the agency to change current status of inter-state natural resource management, it can however initiate important conversations and considerations that sustainability cannot thrive under the agenda of colonial power.

To fully answer my research question, the next three parts of this section will apply the decolonial ecology approach to the Palestinian-Israeli water conflicts. *What would it mean to analyze Palestinian-Israeli hydropolitics through a decolonial ecology approach?* It would involve: (1) exposing colonial legacies, (2) exposing the inherent ecological unsustainability and (3) exposing the structural condition of our entanglement.

Exposing Colonial Legacies

Analyzing the Palestinian-Israeli water conflicts with a decolonial approach starts with recognizing the colonial legacy of the problem. This is important because it recognizes the problem as historical and structural rather than recent or random. Instead of hyper-focusing on the likelihood of inter-state conflict or cooperation, understanding the nuances of the (neo)colonial contexts can help inform why hydropolitics literature has not made significant strides in understanding problems of sustainable water governance on a deeper level. If in fact hydropolitics are political processes, then they should respond to the varied contexts in which they operate (Julien, 2012). Approaching a problem from a decolonial lens rather than a postcolonial one can help bolster a stronger commitment to achieving sustainability in its human and

environmental forms. To highlight this, Stein (2019) uses five core elements to expose colonial legacies: accumulation, security, certainty, hierarchy and autonomy. Each of these elements will be defined and developed to expose the colonial legacy of water governance in Occupied Palestine and Israel.

Accumulation

Accumulation refers to the exploitation of native populations and the natural resources of the environment (Stein, 2019). Exposing the colonial legacy of accumulation means to recall the history of the Zionist plans for the colonization of Palestine and the development of Israel. Prior to Israel's independence, establishing a water infrastructure plan was essential because colonization was contingent on creating an adequate water supply network (Siegel, 2015). Though the 1939 British White Paper cautioned that proposed rates of Jewish immigration to Palestine was unsustainable and that this would deplete water supplies in the region, this motivated rather than disincentivized Zionist leaders to alter the ecological limits in Palestine (Siegel, 2015, p.21). The nature of human and natural resource exploitation is tied the Zionist "fantasy plan" which was to consider "new ways of utilizing the land" (Siegel, 2015, p.40). Despite the rapid expansion of Israeli water networks, and land acquired for the agri-food industry, Palestinians continued to lack adequate water supplies compared to Israeli settlers. Palestinians account for roughly 40% of the Israeli–Palestinian population, yet they receive just about 10% of the withdrawn water (Lautze & Kirshen, 2009, p.191; Sojamo et al., 2012).

Further, Kaminer (2022) illustrates to what extent colonial legacies obstruct prospects of sustainability. In the case of agricultural settlements in the Central Arabah, Kaminer (2022) notices that the capitalist nature of accumulation and exploitation assumed by Zionists forced a

shift from subsistence farming to larger scale agrarian settlements. Kaminer (2022) suggests the extensive accumulation and exploitation of the land and water sources for selling commodities as an instrumental tactic of “eliminating the native”(p.41; Wolfe, 2006).

By identifying the Zionist plans of accumulation of water sources and their exploitation through agricultural settlements, we can begin to see how colonial legacies are structurally woven into the fabric of the modern state of Israel. Approaching this problem in a decolonial way would then mean to address the excess of accumulation and in-equitability of water sharing. In an ecological sense, it is important to be able to see the relationship of Zionist plans for Israel with ecological degradation, though idealizing pre-colonial land may also reintroduce these problems (Nayar, 2010). Approaching accumulation in a decolonial ecology way, means to find ways in which water accumulation for some is not contingent on water security for others. By uncovering Israel’s historical and current control of water sources, a decolonial ecology approach, does not provide a pathway forward to address this problem, but provides the necessary nuance in which contemporary efforts to address this problem might consider decolonial efforts as necessary for transboundary cooperation to occur.

Security

Measuring security consists of understanding how settlers have introduced and maintained processes of dislocation and disempowerment. To expose the colonial legacy then means to expose how processes of geographical dislocation are equally ecological as they are social (Naguib, 2008). This part will briefly explore the apparent legal paradoxes of Israel’s occupation and will highlight the literature on hydropolitics’ omission of colonial relationships as contingent on water security.

First, Israeli independence in 1948 resulted in a mass-expulsions and the destruction of Palestinian villages, towns and livelihoods (Chomsky & Pappé, 2015, p.27). To this day, the Israeli occupation of Palestine “operates under the legal premise that it is temporary” and “has never been declared illegal by the United Nations” (Gunnflo, 2020, p.172). This transcends many of the problems of water governance and allocation, wherein Israel’s ethnic cleansing and regime of apartheid in Palestine is overlooked by the international community (Chomsky & Pappé, 2015; Alatout, 2011). In this sense, transboundary water “cooperation” between Israel and her neighbors is heavily influenced by Israel’s ability to operate as an exception. The segregation in Israel and the occupied territories effectively allows Israel to function as an apartheid state in their interest of security and control to “protect” Israelis at the expense of the Palestinians (Chomsky & Pappé, 2015). Accordingly, Gunnflo (2020) labels the lack of accountability of Israel’s crimes as the consequence of complicity of the *status quo* which is a condition of our entanglement (Stein, 2019; Mignolo, 2021). If Israel is allowed to function as the exception for their state security, how can cooperation and sustainable relationships with Palestine exist? Though I will develop the condition of our entanglement later in the paper, the securitization of Israel and the stalemate of the international community is an influential factor that must be considered in the realm of “operational cooperation” as a means to promote (or control) sustainability.

Further, prior to key territorial changes of Palestine brought on by the Six Day War, The Israeli Water Law of 1959 asserted that “[a] person's land rights do not confer rights to any water sources running through or under his land” (Israel Ministry of Foreign Affairs, 1998; and see Abukhater, 2019, p.17). The evident paradox here is that although Israel weaponizes the “law” on the occupied, it fails to be held responsible for tending to the wellbeing of the population it

demands to control (Haas, 2002). This is trend that is omnipresent in Israel's ability to function as the exception in an effort to securitize the state of Israel for Israelis (Alatout, 2011). Exposing the colonial reality of Israel means to expose how having a legal contextual background can reframe the way we think about the limits of sustainability in the region.

Second, the process of dislocation is also evident in the literature of hydropolitics itself. What I mean by this is that a colonial influence is placed on the periphery of the problem, though issues of transboundary water governance and environmental management often have colonial implications. For example, Zeitoun's (2013) Web of Sustainable Water Security shows that sustainable water security is contingent on a balance between physical and social processes. The Web includes: energy, food, water resources, climate, human/community and national security (Zeitoun, 2013, p.16). From this, sustainability in water security can only exist if areas such as national security is equitable shared and ensures issues such as food and human security are not abandoned. Though environmental factors, agriculture and geographical position may indicate how water is securitized, omitting colonial relationships as a key indicator of water security shows to what extent colonial contexts are dislocated and disempowered in the field of hydropolitics.

Further, Dai (2021) assesses the main factors that contribute to cooperation of the Jordan River Basin between Palestine and Israel, yet fails to label colonialism as an intersectional problem. The tendency to separate the "political tensions" (i.e Israel's occupation of Palestine) in Palestine/Israel with the state of the technology, the "diplomatic mistrust" and the "lack of external enforcement mechanisms" causes problems when it comes to Dai's (2021) suggestion that the water cooperation should overcome being addressed as a priority for Israeli national security (p.13). Though Dai (2021) provides some key pathways for both parties to consider, like

approaching the problem from a technical perspective that considers how much water is available, it abides by the limited scope of the water security discourse (realist perspective) and the water rationality discourse (liberal perspective) which have continuously failed to address the problem at its core (Julien, 2012; Selby, 2003a; and, Selby, 2003b). Understanding the colonial legacy of the problem is both a social issue and an issue embedded within academia. Exposing the colonial legacy means to understand how colonial realities range from legal contexts and extend to academia. Colonial realities underscore the problem, but they may also inform ways to find decolonial solutions.

Certainty

Measuring certainty refers to prioritizing “a single, universally-relevant rationality and set of values that offer certainty, predictability, and consensus” whereby colonial influence “treat[s] knowledge as a means to index, control and order the world and define existence” (Stein, 2019, p.200). Although this suggests an empirical evaluation, I will focus on exposing how administrative and organizational efforts of water management exclude Palestinian participation. This part will briefly explore the rise of the National Israeli water carrier known as the Mekorot and the consequences of the Oslo II Peace Accords. First, the Mekorot was established as a means to ensure Israeli control of the administration of water in the territory. The creation of the Mekorot was inspired by “think[ing] of new ways of utilizing the land” which mirrors Israeli Prime Minister Ben-Gurion’s idea that “the worthless, barren desert turned out to be highly productive and valuable” (Siegel, 2015, p.40). Since the Mekorot oversaw water administration in the territory, it was often insinuated that Palestinians did not know how to efficiently use the water sources (Siegel, 2015). The idea that native Palestinians did not know

how to exploit the land before colonization, reaffirms how colonialism and capitalism are intertwined. To this day, Palestinians face obstacles in collecting their own water resources because they must obtain special well digging permits from the Israeli government, which are routinely denied (Massoud, 2007, p.17). The colonial legacy of the Mekorot and the Israeli government's legal procedures that prohibit Palestinian health and well-being are the root cause for Palestine's contentious relationship with her occupier.

Further, the frustrations brought by Israeli resistance culminated into the 1987 Intifaada, which catalyzed the meetings at the Oslo Accords. The Oslo Accord agreements and "interim arrangements" failed because it was implied that Israel and Palestine were not yet ready for a formal peace deal and that an intermediate period was required to build trust, yet this lingering period of five years (1993-1999) led Palestinians to believe changes were not imminent and both parties were left dissatisfied (Hassan, 2011). The professed "rain-check" on the final status of the Occupied Territories and it being left for future negotiations, meant that the objectives were meaningless (Hassan, 2011; Brooks et al., 2020). Massoud's (2007) highlights that "true peace is impossible when people are starving and have no hope for a better future" (p.17). The lack of proactive approaches to fix issues of water resource management by Israel and the international community because of a longstanding "Israel knows best" which suggests Palestinian incompetence, is evidence of colonial legacy in and beyond water resource management and hydrogeopolitics.

By identifying the power Israel historically and presently holds for knowledge systems and regulating water projects, we can begin to see how colonial legacies are embedded in institutional practices. Approaching this problem in a decolonial way would mean to address the lack of Palestinian voices in conversations of water projects and sustainability, as well as provide

meaningful steps to reconcile the wrong doings of the past. Approaching certainty in a decolonial ecology way, means to find ways in which to promote transparency of knowledge of water projects and water engineering.

Hierarchy

Measuring hierarchy refers to recognizing that “worthiness is conditional and determined by a person’s/being’s perceived capacity to produce value within modern economies” (Stein, 2019, p.200). To illustrate this point, I will briefly focus on the hierarchal value associated with Palestinian lives in Israel and the Occupied Territories. There are certain key inconsistencies of Israel’s treatment of Palestinians which include the administrative oversight by Israel on Palestine. The Oslo II Peace Accords delegated this authority to the Palestinian Authority, whose ability to act has been seriously harmed by the Israel Defense Force's (IDF) coordinated activities; Israel acting as a sovereign power in the occupied territories while effectively carrying out its geographic and cultural destruction (Gregory, 2004, p.129). Israel's military directives are expected to be followed by the Palestinians as if they were Palestinian state laws (Haas, 2002). The wellbeing of the Palestinians residing in such regions, however, is not the responsibility of the state that issues those directives and whose army controls the territories, the land, and the water supplies (Haas, 2002). Though Palestinians are not granted access to water sources, or have permits to access these sources, they are not taken care of by the Israeli state. A recent and tangible example of colonial legacy dictating human importance is the recent coronavirus pandemic. Khader (2021) states that “the pandemic has functioned as a site for playing out the structural histories of settler-colonial violence, occupation, and apartheid politics in Israel/Palestine”(p.290). The underfunded healthcare and sanitation are a product of military

occupation and control (Al-Orzza & Wispelwey, 2020). Though this is not a direct link to hydropolitics or environmental sustainability, issues such as (lack of) vaccine distribution to the Palestinian community is an example of the extension of Israel's apartheid regime (Gold, 2021; Niu & Li, 2020). The foundation of the problems in Palestine are all consequences of decades of settler-colonial influence and colonial legacies. The disposability and carelessness of the Israeli government in contemporary situations (see Qato, 2020; Nithya, 2020), while simultaneously “successfully” performing in the sustainability arena and targeting SDG goals and indicators displays an inconsistency in its approach to “sustainability”.

By identifying how colonial legacy and hierarchy are synonymous with Israel's continued dominance of the water sources, we can begin to see how colonial realities continue to exist today. Approaching this problem in a decolonial way would then mean to approach the problem in ways that bolsters equitable forms of water governance, whereby a more nuanced approach to transboundary water cooperation can exist. This is developed further in the inherent unsustainability section of this paper. In an ecological sense, it is important to begin teasing the many nuances of hierarchy and equity in the domain of water, food and natural resource distribution to marginalized groups in colonial contexts. Approaching hierarchy in a decolonial ecology way, means to find ways that attempt to rewrite the inequitable wrongs of the past, to ensure an equitable and sustainable future.

Autonomy

Observing the colonial legacy of “autonomy” refers to the “denial of interdependence and responsibilities” (Stein, 2019, p.200). For Stein (2019), the denial of interdependence is a product of the “modern colonial promise” of a total independence and “separability” between

groups (p.200, p.208). In the context of Palestinian-Israeli hydropolitics, Israel's control and management of water resources puts Palestinians in a position of dependence, which limits their ability to make their own decisions and creates situations of forced cooperation and compliance with Israel-settlers (Selby, 2003b; Corradin, 2016). Palestinians are caught in a cycle of dependence with Israel, yet their basic water needs are not adequately met (Corradin, 2016).

Although this component of exposing the colonial legacy of "autonomy" is similar to "certainty," I will emphasize the ways in which decolonial approaches can address this component of colonial legacy. Methods to address the issues that stem from the denial of interdependence and responsibilities associated with water in the region are nine factors outlined by Abukhater (2019) for a sustainable and equitable water allocation : "population, hydrology, climate, historical and existing uses, socioeconomic needs, dependent population, comparative costs of alternative means, availability of other resources, and the degree of appreciable harm or damage caused by denial of water rights" (p.146). These nine factors allow for flexibility and equitable arrangements because they recognize the importance of maintain a certain degree of autonomy while still bolstering ethical interdependence. Although the colonial legacy of the problem starts with land dispossession, these nine factors offer a significant step toward decolonizing common water management practices. If equitable and fair arrangements are made between Israel with Palestine, this translates into what Bromberg et al. (2020) call a "Green Blue Deal for the Middle East". A part of the Green Blue Deal reflects the importance of mutually beneficial outcomes and economic opportunities. This includes the Water Energy Nexus, which would allow Palestinians to sell desalinated water to Israel and Jordan, which can increase meaningful regional cooperation, while allowing a coexistence of autonomy and interdependence. Allowing Palestine to have a more independent relationship from Israel in water and economic departments, would

encourage “sustained cooperation,” though this is contingent on other sociopolitical variables. By identifying how colonial power influences Palestinian dependence on Israeli action on water sources, we can begin to map how colonial realities are entrenched in the Palestinian experience, and ultimately dictate their survival. Approaching this problem in a decolonial way would mean to critically engage with the institutions and forces (like international community) who make this possible and work diligently with grassroots and civil society organizations that find ways to support and provide increased autonomy to Palestine.

Exposing the Inherent Unsustainability

Once a clearer picture of the colonial legacy is accounted for, exposing the inherent unsustainability between Israel and Palestine is salient. This is important because it rethinks misconceptions about water governance and underscores how sustainable initiatives cannot successfully operate under modern-colonial circumstances. Exposing the inherent unsustainability of water governance in Palestine-Israel means finding ways to expose shortcomings of sustainability initiatives in an effort to carve out sustainable solutions. To highlight the inherent unsustainability, I will use Stein’s five core elements as mentioned above: accumulation, security, certainty, hierarchy and autonomy. Each of these elements will be defined and developed to expose the inherent unsustainability of water governance efforts in Palestine-Israel.

Accumulation

Measuring "accumulation" of the inherent unsustainability of Palestinian-Israeli sustainable water governance refers to the various ways socioeconomic and environmental forms

of exploitation are contrary to principles of sustainability. Stein (2019) characterizes accumulation stating that a colonial order continues to dictate modern existence through capitalist structures (p.199). For the Palestinian-Israeli context, this is evident through the ecological pressures brought on by colonialism in the Arabah region, as well as the factors that incentivize peace through cooperation of a “green blue deal” (Bromberg et al., 2020). In this subsection, I emphasize the link between settler-colonial capitalist economies and their tendencies to omit social and environmental concerns (Stein, 2019, p.200). On the other hand, it is in no way my intention to award the blame and burden of ecological unsustainability uniquely to the state of Israel, but to show their unsustainable relationship with political power, land dispossession and excessive stressors on the ecological limits/thresholds of Israel and the Occupied territories are unsustainable (Boast, 2016; Barghouti, 2004).

Despite the historical and multi-faith significance of the Jordan River, 96% of the Jordan River’s natural water flows have already been diverted because of land dispossession efforts which have caused an unprecedented amount of saline pollution in the water source (EcoPeace Middle East, 2017, p.4). The consequences of land dispossession and unsustainable water projects to divert the river displays the inherent unsustainability of how water is prioritized and valued in this given context. Though authors (like Siegel, 2015) claim Israel is a “superpower of sustainability,” this does not ring true for the biodiversity and natural environment they control. AlHirsch et al. (2016) emphasizes that “un-planned urban settlement, overgrazing, habitat fragmentation, deforestation, desertification and drought [...]” are leading causes of concern for biodiversity hazards in Palestine (p.61). In this sense, the colonial legacy of accumulation is tied to the inherent unsustainability of accumulation, whereby the excessive creation and irrigation of water sources, for example, greatly stresses the natural ecology of the environment. Also, the

overarching unsustainability of the Occupation is the contrasting experiences lived by Palestinians and Israelis. Many critics of the Occupation (like Chomsky & Pappé, 2015; Gregory, 2004) notices the segregation of Israeli and Palestinian society is also an ecological phenomenon. For example, many of the key access points to the Jordan River basin and other water resources are forbidden to access by Palestinians (AlHirsch et al., 2016, p.63). In the Central Arabah, Palestinian farmers have lost access to water wells because the well water is used to supply new Israeli settlements in the region (Kaminer, 2022; Nebehay, 2018). Settlement villages like Ma'ale Adumim show a substantial disparity in water use and accessibility, roughly consuming four times as much water as Palestinians who reside in the Occupied Territories (Amnesty International, 29 November 2017). The inherent unsustainability lies in the consumption disparities, which juxtapose pockets of water wealth and water poverty in the Occupied Territories and Israel (Amnesty International, 27 October 2009).

Further, measuring the inherent unsustainability of “accumulation” in the Palestinian-Israeli water context can also be seen in institutional approaches to achieve a “Green Blue Deal” (Bromberg et al., 2020). Bromberg et al. (2020) state that the Deal is “one that can serve to address conflict drivers, advance a two state solution based on 1967 borders, and promote trust-building and cooperation in a conflict-mired region”(p.3). The Deal focuses on ways Palestine can create water (through desalination projects) and sell its water production to Israel, which would promote interdependency and cooperation (Bromberg et al., 2020, p.8). Despite this positive outlook, it seems to miss the significance of Palestine’s lack and difficulty to access water with existing wells, notwithstanding the barriers Palestine faces with securing the permits for new water infrastructure projects. The continued military-led expansion of Israel also poses certain uncertainties of infrastructural investments to bring the project to fruition. While the

Green Blue Deal provides a solid way to promote environmental and social sustainability between Israel and Palestine, it fails to reckon with the wrongdoings of the past and the issues of the present, which ultimately puts into question the viability of the Deal itself.

Addressing the inherent unsustainability of accumulation in a decolonial way is particularly challenging due to the fine line that separates sustainability and consumption. While consumption of water is necessary for survival, a decolonial ecology approach highlights the urgency to address issues of water consumption disparities as an inherently unsustainable foundation for sustainable outcomes to emerge. The over-consumption in some parts of Israel and the Occupied Territories show the consequences of unsustainable political relations that derive from colonial practices. A decolonial ecology approach is useful to expose the inherent unsustainability of existing water management practices, which pillage the natural resources that Palestinians rely on, in favor of developing new infrastructure and economic interdependency.

Security

Assessing the inherent environmental unsustainability in the context of “security” means to uncover how the fragmented landscape of Palestine and Israel does not promote sustainability. Similar to the colonial legacy of sociopolitical problems influencing water governance in the region, the inherent environmental unsustainability is a consequence of geographical dislocation and dispossession as both a social and ecological process (Naguib, 2008; Stein, 2015). This part will briefly explore the contrasting environments of Palestine and Israel to show the un-equal patterns of water access and consumption.

The expanding Israeli borders geographically fragment Palestinian society from Israeli society (Gregory, 2004). This process, while evidently a settler-colonial one, juxtaposes security

with insecurity, and wealth with poverty (Coaffee & Wood, 2006). While this may not be a clear environmentally unsustainable practice, the disparities and clear division of arid Palestinian villages, with that of verdant Israeli settlements is a concrete example of the inherent unsustainability and inequality between Palestinians and Israelis (Nebehay, 18 March 2019). Further, the division of societies is physically visible with the separation wall that divided existing Palestinian villages, and obstructs their access to water and natural resources in the region (Lynk, 2005). Lynk (2005) explores the rulings made by the High Court of Israel (HCI) on the “Beit Sourik,” which concluded that the HCI supports policies of occupation no matter their purpose.

Further, the inherent unsustainability of current water policies extends its influence on insecurities such as food, farming practices, health and sanitation. A more recent example, like the Covid-19 pandemic cautions that the disparities in access to disease prevention and healthcare shows significant social disparities and injustices in Israel. Al-Orzza & Wispelwey (18 April 2020) show how Israel extended its securitization during the pandemic: “Israeli occupying forces have [...], and intensified the military securitisation of the West Bank, including the complete blockading of Bethlehem following a Covid-19 outbreak in early March”. Though this does not show evidence of environmental unsustainability, it displays to what extent Israeli approaches to security are unsustainable and not conducive for peace or cooperation in the region.

Applying a decolonial ecology approach to “security,” largely reiterates what was explored in exposing the colonial legacy of the problem, which associated settler-colonial practices of securitizing the Israeli nation-state as a reason for failed positive progress between Palestinians and their relationship with Israeli control over water. These settler-colonial practices

of occupation and control of natural resources and water are inherently unsustainable due to their exacerbating effects on social related areas such as health, and environmental areas such as uneven biodiversity.

Certainty

Assessing the inherent unsustainability in the context of “certainty” means to expose the ways contemporary approaches to predict and measure current and future water supplies are unsustainable. This is reflected in the various water governance scenario projections, as well as the ways “cooperation” and “sustainability” are measured with targets and indicators. First, there are diverging debates on water scarcities due to climate change and their impact on the Palestinian-Israel case more broadly. Some (like Brown & Crawford, 2009 and Mason, 2013) argue that the unpredictability of weather patterns may reinforce existing inequalities with access to adequate water, food and sanitation practices which hinders the prospect of peace, cooperation and social sustainability in the region (p.2). Brown & Crawford (2009) outline six core “threats”, which include water & food insecurity, economic instability, destabilized migration patterns and increased militarization and growing resentment and distrust (p.2-3). On the other hand, Feitelson et al. (2012) conclude that it is unlikely climate change will have a negative impact on the Palestinian-Israeli conflict (p. 241). Despite recognizing that Gaza cannot supply its current demands for water, and that settler politics are increasing in scope and frequency, Feitelson et al. (2012) encourage sustainable efforts to focus on future population projections rather than mitigation and adaptation efforts to address the impact of climate change on the region.

The inherent unsustainability here lies in the anthropocentric approach to problems of sustainability whereby competing narratives of urgency interrupt efforts to address it (see Boast, 2016).

Accordingly, the inherent unsustainability can also be traced to the ways water governance and sustainable practices are defined. For example, a leading problem in the hydropolitics literature is what McCracken and Meyer (2018) identify are the “various definitions of transboundary water cooperation coexist, which translate into the absence of a single accepted means to measure it”(p.2). “Cooperation”, just like “sustainability” ring hollow if nuanced markers and indicators are not associated with them. On the other hand, Ellis (2020) note the need for quantitative and scientific targets to reflect socioeconomic and environmental context in which targets and indicators are situated. While the 2030 SDGs provide a solid step to provide nuance to sustainability issues, there remains a breadth of interpretation of what these targets and indicators entail, and who they ultimately favor (Hussein et al., 2018). Assessing the inherent environmental unsustainability in the context of “certainty” means to expose the need for more nuance on targets and indicators to help bolster a stronger understanding of what sustainability truly entails. Approaching this in a decolonial ecology way would then mean to promote intersectional climate politics (for instance Bond, 2018) which are largely missing from approaches to water governance in Palestine-Israel. If there are competing narratives that contest the urgency to address water governance issues in Palestine-Israel, which disproportionately impact Palestinian livelihoods, the lack of urgency will translate into complacency of addressing the inadequate and insufficient water Palestinians have access to in and beyond the confines of Israel. Applying a decolonial ecology approach to “certainty”, largely reiterates what was explored in exposing the colonial legacy of the problem, which associated settler-colonial

practices as inherently unsustainable due to their inability to address the normative and empirical shortcomings of including colonial realities in problems of unsustainability.

Hierarchy

Assessing the inherent unsustainability in the context of “hierarchy” means to expose the lack of access to natural resources for Palestinians compared to their Israeli counterparts. The inherent unsustainability here can be seen in the anthropocentric ways in approaching water sustainability (for instance, Boast, 2016) and the oversight of Palestinian livelihoods in sustainable transition planning (Shefer, 2021, for example). Although Feitelson et al. (2012) present case scenarios of population projection as the primary concern for water availability, Boast (2016) offers a different perspective concerning the anthropocentric focus of water governance. Boast (2016) highlights that there is an inherent unsustainability in the Palestinian and Israeli patterns of discourse which prioritize the threats of increased water demands by growing populations. Though there are limits to Boast’s (2016) argumentation in that the sociopolitical context in Palestine-Israel merits livelihoods and the human experience to be of overriding focus, she states that “anthropocentric discourse of theft and ownership,[...], ultimately facilitates unsustainable water use” (p.275; Neimanis, 2014). If in fact the securitization of water promotes unsustainable water use amongst Palestinians and Israelis, then finding ways to decolonize discourses and practices associated to water are imperative for promoting real (environmental, social and economic) sustainability in the region. Applying a decolonial ecology approach to “hierarchy” mostly reiterates the lack of basic human rights that Palestinians have in relation to their natural environment, and the ways ecological degradation and sociocultural degradation are simultaneous processes.

Differently, Israeli brainstorming of “smart cities” and innovation are mostly centered around the anthropocentrism and Israeli population growth projections (Shefer, 2021). Interestingly, Shefer’s (2021) dataset excludes projections of Palestinian authority and of Gaza (p.63). Although it may not be a significant component for Israeli research to include Palestine in their efforts to create smart cities and more (environmentally) sustainable neighborhoods, it does portray a lack of attention to the future status of “temporary” settlements and uneven development between the two populations. Further, Dor & Kissinger (2016) provide a multi-scale analysis of urban footprints of an urban city in Israel, to show how over-time, sustainable use of water, for instance “increased because between 2002 and 2012 the amount of electricity required to supply each unit of water increased” (p.118). They notice that despite efforts to be “more sustainable” the effects of “different players”, “government policies and processes in the international arena” ultimately have an impact on urban planning (Dor & Kissinger, 2016, p.120). While the efforts to make practices sustainable are not “unsustainable” in their intent, analyses like these confirm the connection between social, economic and environmental factors that all equally influence sustainable outcomes. The inherent unsustainability in “hierarchy” rests on the fact that there lacks significant nuance when it comes to the influence of colonialism in efforts to achieve sustainability. Applying a decolonial ecology approach to expose the inherent unsustainability of “hierarchy” means to encourage critiques of uneven development and find alternatives from rigid formulations of resource “scarcities” to ones that promote collective wellbeing.

Autonomy

Measuring “autonomy” in the inherent unsustainability of Palestine-Israel sustainable water governance refers to the way Palestine does not have the ability to access the water or the tools that promote sustainability (Stein, 2019). I will make use of critical sustainability studies and Hussein et al.’s (2018) critique and suggestion to improve the Sustainable Development Goal target 6.5 and indicator 6.5.2. Target 6.5 aims to “implement integrated water-resources management at all levels, including through transboundary cooperation as appropriate” in which indicator 6.5.2 outlines “proportion of transboundary basin area with an operational arrangement for water cooperation” (UN). The first suggestion Hussein et al. (2018) make is “(1) to make informal, formal, and technical talks count by adding a preoperational arrangement phase,” – this would engage a wider variety of actors and not limit transboundary water resource management to solely the represented states (p.5). The second proposition by Hussein et al. (2018) is to “(2) introduce qualitative measurements to uncover whether the cooperative arrangements are producing positive or negative outcomes,” are maintained (p.5). In line with SDG indicator 6.5.2, and “operational cooperation,” it can be inferred that incorporating colonial realities and making an effort in contemporary contexts, to decolonize these approaches may increase the likelihood of achieving what the targets and indicators set out to accomplish. Although the Sustainable Development Goals (SDGs) emphasize that “Leave No One Behind (LNOB) is the central, transformative promise of the 2030 Agenda,” Hussein et al. (2018) emphasize that SDG target 6.5.2 is void of addressing inequitable water agreements and more proactive roles in achieving formal cooperation (UNSDG). While the inherent unsustainability here is in how the sustainability is framed, it is nonetheless an example that sustainability cannot only focus on

environmental areas but must include nuances of sociopolitical context to accurately reflect the purpose of sustainability transitions.

Exposing the Condition of Our Entanglement

Stein (2019) defines the condition of our entanglement as a “colonial habit-of-being,” which is the combination of various forms of social, economic and environmental unsustainability (p.207). Our colonial habit-of-being is a collection of conscious and unconscious practices, which are interdependent systems of inequality that are embedded into modern-colonial forms of order and governance (Stein, 2019, p.207). Evidently, the process in which to expose the condition of our entanglement is an abstract one. However, it is best undertaken in two ways: recognizing the linear causal process of colonial influence and mapping out ways of “unlearning” and “un-numbing” to deconstruct how we interpret sustainability and our relationship with it (Stein, 2019, p.207). This final and brief section will expose the condition of our entanglement and identify how it is an essential part of a decolonial ecology approach in and beyond the confines of the Palestinian-Israeli context.

First, Moses & Knutsen (2019) highlight that case studies, like Palestinian-Israeli hydropolitics, are “cases of something” where “the researcher is driven by a larger theoretical concern” (p.133). Essentially, this research paper aimed to explore the salience of Israeli colonial influence and how this is a larger theoretical concern for sustainability efforts in the region and beyond the confines of the conflict. In this way, exposing the condition of our entanglement in the Palestinian-Israeli case requires exposing the linear causal process of colonialism as a mechanism that catalyzes and sustains colonial influence in Palestine. Thus, recognizing the linear causal process of colonial influence on the modern colonial habit-of-being starts with the

premise that it is counterproductive to address the politics of water sustainability in Palestine-Israel without first analyzing the distinct ways in which structural issues of dislocation, control and unsustainability are contingent on colonial processes (Olaoluwa, 2012, p.127; Moses & Knutsen, 2019). The decolonial ecology approach addresses these issues by exposing the Palestinian-Israeli water conflict's colonial legacy and inherent unsustainability but needs to expose the condition of our entanglement to push this analysis further. Stein (2019) emphasizes that the condition of entanglement rests on the fact that modernity and colonialism are simultaneous processes (and see Mignolo, 2021). This means that any efforts to solve problems without being cognizant of colonial power run the risk of failing. Mignolo (2021) states that the idea of dispensable lives, and the *necropolitics*, "are implicit in the resolve of human rights, the foundation of international law supporting the politics of national security, and the building and transformations of the [colonial matrix of power (CMP)]" (p.153; see also Khader, 2021; and, Mbembe, 2003; Davies, 2018). An example Mignolo (2021) uses to illustrate this are the components of the colonial matrix of power and what he calls the "ethical and political consequences [the CMP has] on international law and human rights" (p.127). Mignolo (2021) states that the foundation of international law is a mechanism used by the West to "legali[ze] the rhetoric of modernity while simultaneously enforcing the logic of coloniality" (p.149). Consequently, Mignolo (2021) emphasizes that the use of international law to create the state of Israel in 1948 and the subsequent efforts from international allies supporting Israeli national security under the guise of international law shows to what extent the colonial matrix of power is built to deny and render the lives of the colonized as dispensable (Mignolo, 2021, p.153). This is clear in The American Israeli Public Affairs Committee (AIPAC) agenda, which includes its advocacy "for vital security assistance to Israel, the development of cooperative missile defense

programs, strategic partnership across a broad array of sectors, and the promotion of peace through a negotiated two-state agreement—a secure Jewish state of Israel living alongside a demilitarized Palestinian state” (AIPAC, Accessed August 2022). To further illustrate my point, while the UN is aware of the current human rights situation in Palestine-Israel illustrating Israel's excessive use of force by Israel on Palestinians and journalists, there continues to be apparent rejection by the West to recognize Israeli human rights violations (UN General assembly, 15 October 2021; Abu-Zahra, 2022). The power of the West to deny and reject further investigations is a testament to their understanding that their colonial domination in their country is contingent on Israel's ability to maintain theirs in Occupied Palestine (Kahana & Morag, 14 June 2022). The entanglement of the Zionist nation-state with security and colonialism of the Occupied territories serves as an example of the difficulty of approaching solutions in a decolonial way.

By recognizing the linear causal process of colonial power in international law and security, we can begin to see how the problem in Palestine-Israel is a structural and systemic issue in which methods to fix it, like the UN and International Law, embody the same proponents that the processes of colonialism have offered. The next part of exposing the condition of our entanglement develops this further.

The second part of exposing the condition of our entanglement consists of presenting ways to unlearn and un-numb ourselves to address our colonial habit-of-being and the condition of our entanglement. For the Palestinian-Israeli case, Browne (2021) argues that a significant part rests on the role of discourse and framing of the “conflict” in Palestine/Israel in which decolonial approaches to the “conflict” are modified to mirror liberal efforts of “peacebuilding” by promoting *cooperation* (p.4). In the case of promoting inter-state transboundary water

cooperation, the SDGs, for example, “marginaliz[es] ‘justice’ issues in favour of conflict stability and enforced Palestinian acquiescence” (Browne, 2021, p.4). This is particularly profound for unlearning our colonial habit-of-being because re-framing the Palestinian-Israeli water “conflict” can help avoid further dialogue with the limiting conflict-cooperation binary that continues to thrive in the literature on hydropolitics (see Bradley, 2020). The significance of this way of thinking directly responds to the key concerns of the decolonial ecology approach, which is to make aware of colonial realities. Browne (2021) argues that by continuing to “[frame] the situation in Palestine-Israel through the language of ‘conflict’, a dual-protagonist narrative is promoted, one which distorts settler-colonial realities, reducing the violence of Israeli settler colonialism whilst simultaneously sharpening the violence of Palestinian resistance” (Browne, 2021, p.9). Thus, to approach a problem in a decolonial way, may entail bolstering efforts for justice rather than peace, where decolonization “must not be simply a social justice metaphor and must, in fact, force through a change in the structures that order the world” (Browne, 2021, p.12). Approaches to problems that prioritize justice over peace stem from two key approaches: at the institutional or grassroots level (see Lundy, 2008).

Institutional efforts, though limiting in their ability to create meaningful change due to their own entanglement, could resemble what Ellis (2020) argues about the SDG goals and indicators. By striving to attach more nuance to conflict-cooperation binaries, “peacebuilding”, and ecological quantitative markers like the SDGs, for example, we can properly address sustainability in its social, economic and environmental forms. An important part of exposing the condition of our entanglement and colonial habit-of-being is the way we reflect on our approach to development (see Hawari et al., 2019; Baker & Obradovic-Wochnik, 2016). In the context of sustainability transitions and inter-state water governance in Palestine-Israel, projects often fall

short in addressing neo-colonial practices and reinforcing systemic inequalities (Wills et al. 2020, p.53). In the case of the SDGs in the context of Palestine-Israel water governance, unlearning and nu-umbing ourselves to our colonial habit-of-being would mean critically engaging with ways in which sustainable development practices do not reinforce injustices for those already marginalized. While this is not a specific blueprint that academics or policymakers can use to solve the problem, it shows how valuable a decolonial ecology approach would be in contexts where competing phenomena are widespread. Development can only be sustainable if justice and solidarity overcome efforts of institutionalized forms of peacebuilding and cooperation. Accordingly, allyship and community-led approaches may be informative for prospects of decolonization (Abu-Zahra, 2021).

Grassroots and community-level approaches to sustainability efforts in Palestine-Israel may also introduce a refreshing perspective. Grassroot and community-based approaches to decolonization and conflict resolution often stem from "a lack of interest amongst dominant political actors in developing formal mechanisms to deal with the legacy of the past as part of post-conflict transition" (Lundy & McGovern, 2008, p.113). However, this is often more complex in the context of Palestinian-Israeli relations. Michaels (2015) emphasizes the obstacles in which Palestinian-Israeli civil society must overcome, stating that "initiatives to find a language on equity that satisfies Palestinian water rights advocates without losing Israeli support" (Michaels, 2015, p.302). Although community-led initiatives can foment a shift from national security to prioritizing human and environmental security, they may also run into significant impasses amongst themselves (Michaels, 2015, p. 302). While community-based approaches may integrate human perspectives into theoretical and institutional issues, it seems as though decolonial initiatives must be a forethought to allow effective community and grassroots

initiatives to grow (Giacaman et al., 2011; Michaels, 2015). By exploring the different pathways to address our colonial habit-of-being and the condition of our entanglement, the prospect of successful grassroots projects circles back to our ability to address them in a decolonial way from the start (see Masalha, 2012). The decolonial-ecology approach, in its interest of exposing the condition of our entanglement, shows the extent to which systemic and structural issues inform the prospect of peace through justice. However, it is still unclear whether sociological and ecological pressures can withstand a long enough wait to get things right (Michaels, 2015).

Discussion

In this section, I review the results, which I divide into two key takeaways: the significance of the findings and a future research agenda. First, I briefly summarize the decolonial ecology approach. Second, I explore the significance of the decolonial approach in the context of Palestinian-Israeli hydropolitics and the noticeable shortcomings of my results. Third, I explore key considerations for a future research agenda.

Findings / Significance of Findings

Applying a decolonial ecology approach involves exposing: colonial legacies, the inherent ecological unsustainability and the structural condition of our entanglement. This approach allows for a historical and structural understanding of the context it seeks to analyze. Despite its approach of zeroing in on accumulation, security, certainty, hierarchy and autonomy, it provides a broad analysis of the structural issue of colonialism. Though this paper aimed to find ways to integrate decolonial practices rather than look at a problem with a postcolonial gaze, these are often suggestive rather than assuredly stated. However, this is the main argument in the third component of the approach; the difficulty in conceptualizing decolonial practices results

from our entanglement. Overall, the decolonial ecology approach allows for a thorough survey of the problem of sustainability in colonial contexts, which foments a shift from current bodies of literature. Decolonial ecology, as a tool, is helpful to expose and address issues of unsustainability and re-frame how hydropolitics in Palestine-Israel are understood.

The significance of the findings in the context of Palestinian-Israeli hydropolitics is that it uncovers narratives that are mostly overlooked. Though academics (for instance Selby, 2003a; Selby, 2003b; and Dai, 2020) draw attention to sociopolitical contexts influencing transboundary water relations in Palestine-Israel, colonialism rarely fits into the scope of analysis. A strength of the paper is how it exposes colonialism in different contexts, which emphasizes how sustainability problems are profoundly structural. From the physical changes of the geography in Palestine to the legal barriers Palestinians face in their human right to access water, Israeli colonialism is a pervasive and omnipresent threat to Palestinian survival. Following the comprehensive analysis of exposing the colonial legacy of Israel and water in the Occupied Territories, it is my view that the international community considers problems specific to Palestine as a peripheral concern. It is hard to comprehend the level of ignorance required to omit these facts when conceptualizing how cooperation might be achieved in the region and, by extension, how sustainable peace can be granted to both Palestinians and Israeli citizens. Moreover, the decolonial ecology approach can help shed light on a gap in the literature, and recalibrate how we approach problem-solving and theorizing.

On the other hand, exposing the inherent unsustainability of the Palestinian-Israeli water conflicts is an area in which noticeable shortcomings are present. While the scope of this paper was limited insofar as quantitative methods were mostly excluded, there requires more research in the environmental science field. The findings primarily draw on critical sustainability studies,

which point to how goals, targets, and indicators might be improved to provide comprehensive nuances to the problems they wish to address. The significance of these, however, is striking in the context of Palestinian-Israeli water resource management. Namely, the breadth of the literature that discusses water sustainability in Palestine-Israel points to the inherent environmental unsustainability, which is contingent on social and economic unsustainability in the region. This finding is significant because it provides the case's technical and environmental perspective. In this way, decolonizing the inherent environmental unsustainability means striving for targets and indicators to have more nuance in the language that does not allow loopholes for colonial practices to seep through sustainable efforts.

Lastly, exposing the condition of our entanglement is the foundation on which future research must grow. While complex in its abstract nature of thinking that the world we live in can be any different than its current state, Israel adopting decolonial policies in the name of Palestinian survival, for example, is often wishful thinking at best. Though this paper aims to inspire future research, it also exposes the reader to the barriers future researchers will encounter when applying a decolonial ecology approach to problems. The significance of this "finding" rests on the need for future research to encourage addressing problems in a decolonial way.

Future research agenda

Overall, the significance of the findings are the extensive theoretical and practical opportunities for further research in the field of hydropolitics, sustainability and the Palestinian-Israeli case. I believe there are three main areas for future research to bolster a more compelling decolonial ecology approach: (1) multidisciplinary challenges, (2) keeping the focus on daily lived human experiences, and (3) challenging the status quo.

First, a future research agenda could strive to intersect critical sustainability studies with resource management problems. Although the relationship between sustainability, neocolonialism, and capitalism is often put in question, I believe there is still a considerable gap in our knowledge when studying power and transitions toward sustainability (Foster, 2014; Stein, 2019b). A sense of naïveté occupies much of the literature on sustainability transitions, which assumes that achieving sustainability means systemic issues are no longer. Avelino & Rotmans (2009) provide a conceptual framework that introduces ways to monitor the consequences of changing power dynamics undergoing structural change, which may be of interest for a research agenda. Given the multidimensional characteristics of environmental challenges and sustainability, multidisciplinary approaches are essential to seeing a problem in all of its parts, including the influence of colonial realities.

Second, as this paper may have prioritized the theoretical questions of a decolonial ecology approach, the daily lived human experiences cannot be omitted from conversations. Sustainability projects, like the UN SDGs must prioritize marginalized communities and human life. While quantitative methodological approaches to problems provide significant insight into environmental problems and an increase in ethnographic approaches (like Naguib, 2008) to decolonial ecology may reinforce the purpose of applying decolonial ecology to problems of unsustainability. I believe that this research paper incites the curiosity necessary to expand the field of hydropolitics and transition toward a more sustainable future. I believe more theoretical and conceptual work can be done to bolster a more robust and refined definition of a decolonial approach and, in turn, more thorough and compelling analyses of cases worldwide.

Third, the limitations of developing a decolonial ecology approach in our contemporary context are that decolonial solutions threaten the status quo. A further research agenda could

include exploring ways decolonial efforts can become appealing for colonial institutions and governments to adopt. This is part is exceptionally challenging given the urgency to achieve global sustainability while keeping decolonization as a top priority. This third area for future research undeniably is the most challenging to conceptualize, which may indicate its salience.

Conclusion

The Palestinian-Israeli case is often referred to as “complex” when attempting to find solutions to address it. Yet, the complexity of the problem is a consequence of widely overlooking colonialism and neo-colonial practices as the root of the problem. While evaluating the prospect of transboundary water conflict or cooperation may encourage institutional efforts (like the UN SDGs), they ultimately fall short in structurally addressing the problems that the most vulnerable in society come to face. The apparent lack of reflexivity in the field of hydropolitics shows to what extent leading theories and conceptual approaches to the problem of water sustainability in the context of Palestine-Israel are extremely limiting. Further, introducing a postcolonial lens to transboundary water management challenges the literature's binary of thinking conflict and cooperation are mutually exclusive, and suggests that colonial power fosters forced cooperation. Because of this observation and gap in the literature, it is important that problems of this nature are addressed with a decolonial ecology approach. This new and emerging body of literature presents hydropolitics with the opportunity to carve out new theoretical and conceptual pathways that address both key facets of Palestine-Israel water governance : 1- uncover and include colonial contexts, and 2- approach problems with colonial dynamics in decolonial way. Ultimately, this paper adequately develops the research question it set out to answer: *What would it mean to analyze Palestinian-Israeli sustainable water governance through a decolonial ecology approach?* By introducing the method of "cross-

pollination" of postcolonial and ecological theory, this paper constructed and defined decolonial ecology and apply it to the Palestinian-Israeli case. To analyze the Palestinian-Israeli sustainable water governance through a decolonial ecology approach means exposing: the colonial legacy of the problem, the inherent unsustainability and the overarching condition of our entanglement.

While I note the limits to my results as broad in the context of finding practical solutions to solve the problem of water sustainability in Palestine-Israel, I do believe I adequately defined and answered the research question of this major research paper. As divisiveness continues to grow in Israeli politics, and problems relating to water resource management and sustainability are necessary to ensure human survival; the need to approach problems in a decolonial ecology way is vital. Sustainability cannot operate in contexts where systemic issues continue to propagate.

While this paper does not have the answers to one of the most pressing problems of our existence, it hopes to create space for a more sustainable and equitable future through thinking about problems in a decolonial way, because we have to.

References

- Abu-Zahra, N. (2020). *Aid for Peace Revisited: A New Paradigm for Understanding Conflict and Development*. N.A
- Abukhater, A. (2019). *Palestine - Peace by Piece: Transformative Conflict Resolution for Land and Trans-boundary Water Resources*. Springer International Publishing.
<https://doi.org/10.1007/978-3-030-03985-1>
- AIPAC. (n.d.) *Policy Agenda*. (n.d.). Retrieved 3 June 2022, from <https://www.aipac.org/policy>
- Alatout, S. (2011). State-ing Natural Resources through Law: The Codification and Articulation of Water Scarcity and Citizenship in Israel. *The Arab World Geographer*, 10(1), 16–37.
<https://doi.org/10.5555/arwg.10.1.013746420n152132>
- AlHirsh, I., Battisti, C., & Schirone, B. (2016). Threat analysis for a network of sites in West Bank (Palestine): An expert-based evaluation supported by grey literature and local knowledge. *Journal for Nature Conservation*, 31, 61–70. <https://doi.org/10.1016/j.jnc.2016.03.005>
- Al-Orzza, A. & Wispelwey, O. (2020, April 18). *Bram Wispelwey and Amaya Al-Orzza | Underlying Conditions · LRB 18 April 2020*. LRB Blog. <https://www.lrb.co.uk/blog/2020/april/underlying-conditions>
- Allan, J.A., & Mirumachi, N. (2010). Why Negotiate? Asymmetric Endowments, Asymmetric Power and the Invisible Nexus of Water, Trade and Power that Brings Apparent Water Security. In A. Earle (Ed.), *Transboundary Water Management: Principles and Practice*. (pp.13-26). Routledge.
- Amnesty International. (2009, October 27). *Israel/Occupied Palestinian Territories: Demand Dignity: Troubled waters - Palestinians denied fair access to water*. Retrieved:
<https://www.amnesty.org/en/documents/mde15/027/2009/en/>
- Amnesty International. (2017, November 29). *The Occupation of Water*. Retrieved:
<https://www.amnesty.org/en/latest/campaigns/2017/11/the-occupation-of-water/>
- Avelino, F., & Rotmans, J. (2009). Power in Transition: An Interdisciplinary Framework to Study Power in Relation to Structural Change. *European Journal of Social Theory*, 12(4), 543–569.
<https://doi.org/10.1177/1368431009349830>
- Awad, S. I. (2019). Ecological justice for Palestine. In A. Harley & E. Scandrett (Eds.), *Environmental Justice, Popular Struggle and Community Devt* (1st ed., pp. 117–134). Bristol University Press. <https://doi.org/10.2307/j.ctvhktjf7.16>

- Baker, C., & Obradovic-Wochnik, J. (2016). Mapping the Nexus of Transitional Justice and Peacebuilding. *Journal of Intervention and Statebuilding*, Vol.10(3): 281–301.
- Barghouti, M. (2004). *I Saw Ramallah* (Soueif A, transl.). London: Bloomsbury.
- Boast, H. (2016). “A river without water”: Hydropolitics and the River Jordan in Palestinian literature. *The Journal of Commonwealth Literature*, 51(2), 275–286.
<https://doi.org/10.1177/0021989415626495>
- Bond, P. (2018). Equitable, Just Access to Natural Resources: Environmental Narratives during Worsening Climate Crises. In H. Lehmann (Ed.), *Factor X: Challenges, Implementation Strategies and Examples for a Sustainable Use of Natural Resources* (pp. 93–111). Springer International Publishing. https://doi.org/10.1007/978-3-319-50079-9_6
- Bradley, E. (2020). Conflict or Colonialism? Discover Society. Available:
<https://discoversociety.org/2020/10/07/on-the-front-line-conflict-vs-colonialism-inpalestine/>
- Bromberg, G., Majdalani, N. & Abu Taleb, Y. (2020) A Green Blue Deal For The Middle East. *EcoPeace Middle East* <https://ecopeaceme.org/wp-content/uploads/2022/03/a-green-blue-deal-for-the-middle-east.pdf>
- Brooks, D. B., Trottier, J., & Giordano, G. (2020). *Transboundary Water Issues in Israel, Palestine, and the Jordan River Basin: An Overview*. Springer. <https://doi.org/10.1007/978-981-15-0252-1>
- Brown, O., & Crawford, A. (2009). *Rising Temperatures, Rising Tensions: Climate Change and the Risk of Violent Conflict in the Middle East*. Winnipeg, MB: International Institute for Sustainable Development.
- Browne, B. C. (2021). Disrupting Settler-Colonialism or Enforcing the Liberal ‘Peace’? Transitional (In)justice in Palestine-Israel. *Journal of Holy Land & Palestine Studies*, 20(1), 1–27.
<https://doi.org/10.3366/hlps.2021.0255>
- Busbridge, R. (2018). Israel-Palestine and the Settler Colonial ‘Turn’: From Interpretation to Decolonization. *Theory, Culture & Society*, 35(1), 91–115.
<https://doi.org/10.1177/0263276416688544>
- Buzan, B., Wæver, O. and de Wilde, J. (1998) *Security: A New Framework for Analysis*. Boulder: Lynne Rienner.
- Chomsky, N. and Pappé, I. (2015). *On Palestine*. edited by Frank Barat, Haymarket Books, 2015.

- Coaffee, J. and Wood, D. M. (2006). Security is coming home: rethinking scale and constructing resilience in the global urban response to terrorist risk. *International Relations*, 20(4), 503–517. <https://doi.org/10.1177/0047117806069416>.
- Corradin, C. (2016, June 23). *Israel: Water as a tool to dominate Palestinians*. Al Jazeera. <https://www.aljazeera.com/news/2016/6/23/israel-water-as-a-tool-to-dominate-palestinians>
- Dai, L. (2021). Implementation Constraints on Israel–Palestine Water Cooperation: An Analysis Using the Water Governance Assessment Framework. *Water*, 13(5), Article 5. <https://doi.org/10.3390/w13050620>
- Davies, T. (2018). Toxic Space and Time: Slow Violence, Necropolitics, and Petrochemical Pollution. *Annals of the American Association of Geographers*, 108(6), 1537–1553. <https://doi.org/10.1080/24694452.2018.1470924>
- Dor, A., & Kissinger, M. (2017). A multi-year, multi-scale analysis of urban sustainability. *Environmental Impact Assessment Review*, 62, 115–121. <https://doi.org/10.1016/j.eiar.2016.05.004>
- du Plessis, A. (2019). *Water as an Inescapable Risk: Current Global Water Availability, Quality and Risks with a Specific Focus on South Africa*. Springer International Publishing.
- EcoPeace Middle East. (2017). River Out Of Eden: Water, Ecology and The Jordan River in The Abrahamic Traditions. *Save The Jordan*. Retrieved: [https://ecopeaceme.org/wp-content/uploads/2022/03/River Out of Eden Multifaith web.pdf](https://ecopeaceme.org/wp-content/uploads/2022/03/River-Out-of-Eden-Multifaith-web.pdf)
- Ellis, J. (2020). Calculative Practices in International Environmental Governance: In (Partial) Defence of Indicators. *Transnational Environmental Law*, 9(2), 297–321. <https://doi.org/10.1017/S2047102520000084>
- Feitelson, E., Tamimi, A., & Rosenthal, G. (2012). Climate change and security in the Israeli—Palestinian context. *Journal of Peace Research*, 49(1), 241–257. <https://www.jstor.org/stable/23141291>
- Foster, J. (2014). *After sustainability: Denial, hope, retrieval*. London: Routledge.
- Furlong, K. (2006). Hidden theories, troubled waters: international relations, the ‘territorial trap’, and the Southern African Development Community’s transboundary waters. *Political Geography* 25(4). 438–458.
- Giacaman, R., Rabaia, Y., Nguyen-Gillham, V., Batniji, R., Punamäki, R.-L., & Summerfield, D. (2011). Mental health, social distress and political oppression: The case of the occupied

- Palestinian territory. *Global Public Health*, 6(5), 547–559.
<https://doi.org/10.1080/17441692.2010.528443>
- Gleditsch, N. P., & Urdal, H. (2002). Ecoviolence? Links between population-growth, environmental scarcity and violent conflict in Thomas Homer-Dixon's work. *Journal of International Affairs*, 56(1), 283-302.
- Gleick, P.H. (1993). Water and conflict: fresh water resources and international security. *International Security*, 18(1), 79–112.
- Gold, A. (2021, January 6). Israel is not showing vaccine leadership, it is demonstrating medical apartheid . Mondoweiss. <https://mondoweiss.net/2021/01/israel-is-not-showing-vaccine-leadership-it-is-demonstrating-medical-apartheid/>
- Gomez-Barris, M. (2019). The colonial Anthropocene: Damage, remapping, and resurgent resources. Antipode Foundation.
- Gregory, D. (2004). *The colonial present : Afghanistan, Palestine, and Iraq*. Blackwell Pub.
- Gunneflo, M. (2020). Settler-colonial and Anti-colonial Legalities in Palestine, *The Palestine Yearbook of International Law Online*, 20(1), 171-188. doi: https://doi-org.proxy.bib.uottawa.ca/10.1163/22116141_020010008
- Handley, G. B. (2011). The Postcolonial Ecology of the New World Baroque: Alejo Carpentier's The Lost Steps. In *Postcolonial Ecologies*. Oxford University Press.
- Haas, A. (2002, October 9). "Always a fighter, always a terrorist" Ha'aretz. URL N/A.
- Hassan, S. (2011). Oslo Accords: The Genesis and Consequences for Palestine. *Social Scientist*, 39(7/8), 65–72. <https://www.jstor.org/stable/41289422>
- Hawari, Y., Plonski, S., & Weizman, E. (2019). Seeing Israel through Palestine: Knowledge production as anti-colonial praxis. *Settler Colonial Studies*, 9(1), 155–175.
<https://doi.org/10.1080/2201473X.2018.1487129>
- Homer-Dixon, T. F. (1994). Environmental Scarcities and Violent Conflict: Evidence from Cases. *International Security*, 19(1), 5–40. <https://doi.org/10.2307/2539147>
- Homer-Dixon, T.F. (1999). *Environment, scarcity, and violence*. Princeton University Press.
- Hussein, H., Menga, F., & Greco, F. (2018). Monitoring Transboundary Water Cooperation in SDG 6.5.2: How a Critical Hydropolitics Approach Can Spot Inequitable Outcomes. *Sustainability (Basel, Switzerland)*, 10(10), 3640–. <https://doi.org/10.3390/su10103640>

- Israel Ministry of Foreign Affairs. (1998, December 22). *The Water Law of 1959*.
<https://mfa.gov.il/mfa/pressroom/1998/pages/the%20water%20law%20of%201959.aspx>
- Jaakkola, E. (2020). Designing conceptual articles: Four approaches. *AMS Review*, 10(1–2), 18–26.
<https://doi.org/10.1007/s13162-020-00161-0>
- Joshi, S. (2021). *Climate Change Justice and Global Resource Commons: Local and Global Postcolonial Political Ecologies*. Routledge. <https://doi.org/10.4324/9780429346231>
- Julien, F. (2012). Hydropolitics is what societies make of it (or why we need a constructivist approach to the geopolitics of water). *International Journal of Sustainable Society*, 4(1), 45–71.
- Jury, V. (2007). The Emerging Global Water Crisis: Managing Scarcity and Conflict Between Water Users. *Advances in Agronomy*, 95, 1–76. [https://doi.org/10.1016/S0065-2113\(07\)95001-4](https://doi.org/10.1016/S0065-2113(07)95001-4)
- Kahana, A., & Morag, T. (2022, June 14). 22 nations oppose anti-Israel probe by UN Human Rights Council. *Www.Israelhayom.Com*. <https://www.israelhayom.com/2022/06/14/22-nations-oppose-anti-israel-probe-by-un-human-rights-council/>
- Kaminer, M. (2022). The Agricultural Settlement of the Arabah and the Political Ecology of Zionism. *International Journal of Middle East Studies*, 54(1), 40–56.
<https://doi.org/10.1017/S0020743821001021>
- Keohane, R.O. (1989) [1980] ‘The theory of hegemonic stability and changes in international economic regimes, 1967–1977’, in R.O. Keohane, *International Institutions and State Power: Essays in International Relations Theory*. Boulder: Westview Press, pp.74–100.
- Khader, J. (2021). The Covid-19 Pandemic and the Crisis of Signification in Israel/Palestine: Biopolitics, Reinvented Communism, and Conspiracy Theories. In I. Strasser & M. Dege (Eds.), *The Psychology of Global Crises and Crisis Politics: Intervention, Resistance, Decolonization* (pp. 289–310). Springer International Publishing. https://doi.org/10.1007/978-3-030-76939-0_14
- Lautze, J., & Kirshen, P. (2009). Water allocation, climate change, and sustainable water use in Israel/Palestine: the Palestinian position. *Water International*, 34(2), 189–203.
<https://doi.org/10.1080/02508060902903175>
- Lowi, M. (1993). *Water and power : the politics of a scarce resource in the Jordan River basin*. Cambridge University Press.
- Lowi, M.(2008). “Scar[c]e water, abundant oil: resources and conflict in the Middle East and North Africa”, Paper presented at the 49th Annual *International Studies Association Convention*. Bridging Multiple Divides. 26–29 March 2008, San Francisco, USA.

- Lundy, P. (2008). *Transitional Justice from Below: Grassroots Activism and the Struggle for Change*. Hart Publishing. <https://doi.org/10.5040/9781472564405>
- Lundy, P., & McGovern, M. (2008). The Role of Community In Participatory Transitional Justice. In K. McEvoy & L. McGregor (Eds.), *Transitional Justice from Below: Grassroots Activism and the Struggle for Change* (1st ed., pp. 99–120). Hart Publishing; Bloomsbury Collections.
- Lynk, M. (2005). Down by Law: The High Court of Israel, International Law, and the Separation Wall. *Journal of Palestine Studies*, 35(1), 6–24. <https://doi.org/10.1525/jps.2005.35.1.6>
- Masalha, N. (2012). Naji Al-Ali, Edward Said and Civil Liberation Theology in Palestine: Contextual, Indigenous and Decolonising Methodologies. *Holy Land Studies*, 11(2), 109–134. <https://doi.org/10.3366/hls.2012.0041>
- Mason, M. (2013). Climate change, securitisation and the Israeli–Palestinian conflict. *The Geographical Journal*, 179(4), 298–308. <https://www.jstor.org/stable/43868569>
- Massoud, R. (2007, June). Farming Under Occupation in Palestine. *Peace Magazine*, 23(2), 16–17.
- Mbembe, A. (2003). Necropolitics. *Public Culture* 15 (1):11–40. doi:10.1215/08992363-15-1-11.
- McClintock, A. (1992). The Angel of Progress: Pitfalls of The Term “Post-colonialism”. *Social Text* (Spring): 1-15.
- McCracken, M., Meyer, C. (2018). Monitoring of transboundary water cooperation: Review of Sustainable Development Goal Indicator 6.5.2 methodology. *Journal of Hydrology (Amsterdam)*, 563, 1–12. <https://doi.org/10.1016/j.jhydrol.2018.05.013>
- Michaels, L. (2015). Climate change and transboundary initiatives in the Jordan River Basin: can civil society show the way? In Lopez-Gunn, E., & Stucker, D. (Eds.), *Adaptation to climate change through water resources management : capacity, equity and sustainability* (pp.285-306). Routledge. <https://doi.org/10.4324/9780203085875>
- Mignolo, W. (2021). *The politics of decolonial investigations*. Duke University Press.
- Moses, J., & Knutsen, T. (2019). *Ways of Knowing: Competing Methodologies in Social and Political Research*. Basingstoke: Palgrave.
- Naguib, N. (2008). *Women, Water and Memory: Recasting Lives in Palestine*. BRILL. <http://ebookcentral.proquest.com/lib/ottawa/detail.action?docID=468287>
- Nayar, P. K. (2010). *Postcolonialism: A Guide for the Perplexed: Postcolonialism*. Bloomsbury Publishing Plc.

- Nebehay, S. (2019, March 18). U.N. rights expert: Israel depriving Palestinians of clean water. *Reuters*. <https://www.reuters.com/article/israel-palestinians-un-idUSL8N2151O7>
- Neimanis, A. (2014). Alongside the right to water, a posthumanist feminist imaginary. *Journal of Human Rights and the Environment* 5(1): 5–24.
- Nithya, G. N. (2020, April 19). Between the rock of the occupation, and the hammer of coronavirus. *The Bullet. Socialist Project*. <https://socialistproject.ca/2020/04/between-rock-of-occupation-and-hammer-of-coronavirus/>
- Niu, S., & Li, N. (2020). Israel's measures and its cooperation with Palestine to fight COVID-19. *Asian Journal of Middle Eastern and Islamic Studies*, 14 (3), 396–409. <https://doi.org/10.1080/25765949.2020.1802562>.
- Nixon, R. (2011). *Slow Violence and the environmentalism of the poor*. London: Harvard University Press.
- Olaoluwa, S. (2012). 'There was a Time': Postcolonial ecology and mourning in Ngugi wa Thiong'o's *Wizard of the Crow*. *European Journal of English Studies*, 16(2), 125–136. <https://doi.org/10.1080/13825577.2012.703816>
- Qato, D. M. (2020). Introduction: Public health and the promise of Palestine. *Journal of Palestine Studies*, 49(4), 8–26. <https://doi.org/10.1525/jps.2020.49.4.8>
- Saïd, E.W. (1992). *The question of Palestine* (Vintage books edition). Vintage Books.
- Saïd, E. W. (1995). *Orientalism*. Penguin.
- Shefer, I. (2021). The quest for the holy grail: Can smart cities lead us to sustainability? In *Sustainable Development and Resource Productivity* (1st ed., pp. 55–66). Routledge. <https://doi.org/10.4324/9781003000365-6>
- Selby, J. (2003a). Dressing up domination as “cooperation”: the case of Israeli-Palestinian water relations. *Review of International Studies*, 29(1), 121–138. <https://doi.org/10.1017/S026021050300007X>
- Selby, J. (2003b) *Water, Power and Politics in the Middle East: The Other Israeli-Palestinian Conflict*. New York: I.B. Tauris.
- Shlaim, A. (2010). *Israel and Palestine: reappraisals, revisions, refutations*. Verso.
- Siegel, S. (2015). *Let there be water : Israel's solution for a water-starved world* . Thomas Dunne Books/ St. Martin's Press.

- Sojamo, S., Keulertz, M., Warner, J., & Allan, J. A. (2012). Virtual water hegemony: The role of agribusiness in global water governance. *Water International*, 37(2), 169–182.
<https://doi.org/10.1080/02508060.2012.662734>
- Stein, S. (2019). The Ethical and Ecological Limits of Sustainability: A Decolonial Approach to Climate Change in Higher Education. *Australian Journal of Environmental Education*, 35(3), 198–212. <https://doi.org/10.1017/aee.2019.17>
- Stein, S. (2019b). Beyond higher education as we know it: Gesturing towards decolonial horizons of possibility. *Studies in Philosophy and Education*, 38, 143–161.
- Sylvester, C. (2017). Post-colonialism. In J. Baylis, S. Smith & P. Owens (Eds.) *The Globalization of World Politics: An Introduction to International Relations* (pp.174-188). Oxford University Press.
- Tarlock, A.D. (2008). Water security, fear mitigation and international water law. *Hamline Law Review*, 31(3), 703–728.
- Trottier, J. (2004). Water and conflicts, Hobbes v. Ibn Khaldun: the real clash of civilizations?. In J. Trottier and P. Slack (Eds.). *Managing Water Resources: Past and Present*. New York: Oxford University Press, pp.131–148.
- Trujillo, A. P. (2016). Postcolonial Ecologies: The Cross-Pollination of Postcolonial and Environmental Studies. *The Trumpeter*, 32(1), 38–54.
- UN: Goal 6: Clean Water and Sanitation - SDG Tracker. (n.d.). Our World in Data. Retrieved February 8, 2021, from <https://sdg-tracker.org/water-and-sanitation>
- UNSDG / Leave No One Behind. (n.d.). Retrieved March 11, 2021, from <https://unsdg.un.org/2030-agenda/universal-values/leave-no-one-behind>
- Wills, E. R., El Richani, D., & Abu-Zahra, N. (2020). Building new practices of solidarity: The community mobilisation in crisis project. *Gender & Development*, 28(1), 51–68.
<https://doi.org/10.1080/13552074.2020.1717174>
- Wolfe, P. (2006). Settler colonialism and the elimination of the native. *Journal of Genocide Research*, 8(4), 387–409. <https://doi.org/10.1080/14623520601056240>
- Zeitoun, M. (2008). Power and water in the middle east: the hidden politics of the Palestinian-Israeli Water conflict.

- Zeitoun, M. (2013). The Web of Sustainable Water Security. In B. Lankford, K. Baker, M. Zeitoun & D. Conway. (Eds.), *Water Security: Principles, Perspectives and Practices* (pp.11-25). Routledge.
- Zeitoun, M., & Warner, J. (2006). Hydro-hegemony – a framework for analysis of trans-boundary water conflicts. *Water Policy*, 8(5), 435–460.
- Zeitoun, M., Mirumachi, N., & Warner, J. (2011). Transboundary water interaction II: The influence of ‘soft’ power. *International Environmental Agreements : Politics, Law and Economics*, 11(2), 159–178.