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I. Introduction

Early in 1953, the Pakistani Embassy in Washington D.C. issued the following statement:

Pakistan today faces starvation and economic ruin by a process of slow strangulation at the hands of India. It is a culmination of a long series of efforts by Delhi for disruption of the [Pakistani] State...today comes an unparalleled threat; starvation of 76 millions by depriving them of the waters of the Indus Basin by which they live...West Pakistan lives by irrigation. Without the rivers this arid area won from the desert would revert to desert...one of the world's food granaries would dry up and millions starve to death (Embassy of Pakistan in Washington, D.C. 1953, November 1).

The timing of this announcement was explosive. Only six years earlier, Pakistan and India had emerged from a bloody process of partition as the successor states to the British India. Heated negotiations between World Bank mediators, Pakistanis, and Indians regarding the distribution of Indus waters had also been ongoing. Clearly, the partition of British India was not a discrete event in 1947, but a longer process of reconfiguring identities, borders, and territories (Zamindar 2007). Along with the more well-known dispute around Kashmir, the controversy around Indus waters was one the key geopolitical problems of decolonization in the subcontinent (Haines 2017; Akhter 2015a; Michel 1967).

As the above quote illustrates, the distribution of Indus waters was not perceived in Pakistan as a dry, technical, matter – but one that touched on the very security and sanctity of the nation's future. Meanwhile, on the Indian side of the border, state elites and officials were also vexed about the issue. Some of the grandest projects of the nascent developmentalist state in India involved the Indus – Jawaharlal Nehru famously referred to the Bhakra Dam on the Sutlej tributary as one of the technological “temples” of modern India. Because the Indus was internationally contested, Nehru was having difficulty securing international financing to develop new infrastructures on the river and was increasingly vocal about his frustration. On both sides of the border, then, perceptions of national territorial integrity and development were intertwined with the contest over the Indus Basin.

The Indus Waters Treaty (the IWT) was signed in Karachi on September 19, 1960. This treaty allocated waters between Pakistan and India, set rules for the construction of new infrastructures, and presented an adjudication procedure to resolve any future disputes. The IWT did not - and does not - represent a final resolution to hydropolitical tension between the states. International water treaties do not end conflict – rather, they provide a structure and specialized language for the continuation of hydropolitical struggle by other means (Thomas 2017b). Since the signing of the IWT in the middle of the last century, international treaties have played an increasingly prominent role in water governance across the world (Thomas 2017b; Giordano et al. 2014; Conca 2006). However, not enough theoretical attention has been given to how treaties and treaty interpretation occurs in the context of processes of territorialization and globalization.

This paper approaches treaty interpretation as an arena for hydropolitical struggle between state elites. It argues that legal strategies of states elites are powerfully shaped by pressures I term “downstream territorialism” and “basin developmentalism”. The former is the pressure on state managers to mitigate the vulnerability of downstream riparian space. The latter is the need for state managers to lead a process of hydraulic development aimed at the holistic and basin-wide exploitation of river resources – a well-developed theme in critical water geography (Akhter 2015a, 2015b; Molle 2009). This argument is developed through a close reading of the opposing arguments and the 2013 verdict regarding a dispute between Pakistan and India over the permissibility of a river infrastructure project: the Kishenganga Hydro-Electric Power Plant in the disputed region of Kashmir.

Although downstream territorialism and basin developmentalism are abstract categories, legal contests provide a unique opportunity to observe and analyze how their operation in concrete situations. This is because textual evidence must be provided in the process of legal contest and argumentation to support what are fundamentally geopolitical arguments. This paper trail of detailed reasoning and argument makes it possible to trace the rationales and narratives underlying geopolitical strategy. The paper aims to advance the theorization of legal geopolitics, especially around treaty interpretation in critical water geography. More broadly, it contributes to the political ecologies of state power, technology, and natural resources (Loftus 2018; Menga and Swyngedouw 2018; Bridge 2014).

The legal and geopolitical conflict over Indus waters is complex and ongoing. This paper focuses on a controversy around an Indian hydroelectric facility located in the disputed region of Kashmir. Construction began on the Kishenganga project, which aims to divert water from the Kishenganga tributary of the Indus (known as the Neelum in Pakistan), in 2007. Pakistan referred the case for international arbitration in 2010, and a decision was delivered in two parts in 2013. The paper interrogates how international lawyers working for India and especially Pakistan interpreted the IWT through recourse to the treaty's negotiation archive. The negotiation archive, called *travaux préparatoires* by international lawyers, is a rich and under-utilized resource for the analysis of the geopolitics of rivers, or hydropolitics. While archival sources are important to a variety of historical geographical scholarship (Naylor 2017), archival work has not informed the analysis of contemporary hydropolitics as much as it could. An analysis of the Kishenganga case makes clear that archives are not simply a record of the past – they can also become battlefields for legal disputes and can powerfully shape how river resources are territorialized.

Section 2 establishes the theoretical basis for the hydropolitical analysis of treaty interpretation in the critical water geography literature. Section 3 provides historical and geopolitical context on the IWT and Indo-Pak relations. Section 4 analyzes the contest between the legal teams of the Pakistani and Indian states to define the purpose and objective of the IWT. While the Pakistani legal team argued for territorial integrity for downstream riparian states, Indian lawyers insisted on the right to maximum regional economic development of the basin. These positions are not just legal strategies limited to this specific dispute. Rather, they illustrate more general tendencies in the geopolitics of globalization when analyzed in terms of the “logics” of capital and territory, as outlined by Harvey (2003). Section 5 discusses the relationship between general geopolitical “logics” and their specialized hydropolitical forms in the process of territorialization through water development, also known as “hydrosocial territorialization” (Boelens et al. 2016). The conclusion summarizes the paper's theoretical and methodological arguments and highlights their implications.

II. Treaties as hydropolitical battlegrounds

Hydropolitics can be understood, broadly speaking, as the geopolitical analysis and interpretation of rivers, especially transboundary rivers. Over the past two decades, hydropolitical analysis has flourished in the fields of political geography. These approaches critique the security-centric, mono-scalar, and formal analysis often associated with mainstream international relations approaches to water. Instead, critical water geographers draw on theories of state power, asymmetric and multi-dimensional power, and territorial conflicts in all their spatial and technonatural complexity. “Critical hydropolitics” stresses how rivers and water resources are not objective natural facts, but rather mediated by ideology and discursive representations (Sneddon and Fox 2006; Furlong 2006). The “framework for hydro-hegemony” distinguishes between different modes of power at play between and within states, including geographic power, economic power, military power, and discursive power. (Warner et al. 2017; Menga 2016; Zeitoun and Warner 2006). The “river-border complex” argues for a dynamic approach to the interaction of ecological and political scales and boundaries in the analysis of transboundary water politics (Thomas 2017). These approaches are united in by their engagement with complex notions of power, agency, and nature as at least partly social constructed, multi-dimensional, and open to contest.

They also engage, albeit unevenly, with global water governance. Global water governance as a research and policy area has emerged from a confluence of global thinking in hydrologic studies (Vorosmarty et al. 2013), transnational networks of hydraulic expertise and capital (Molle 2009), and nationally based but globally connected environmental and human rights efforts (Woodhouse and Muller 2017; Conca 2006). International water treaties form just one—albeit important—subfield of research in hydropolitics and global water governance. Researchers have painstakingly documented and categorized the numerous international water treaties or agreements to argue that international cooperation over the governance of transboundary streams is a common outcome—far more so than conflict (Wolf 2007). There are 285 transboundary freshwater treaties, and most people who live in a transboundary basin are governed at least nominally by a water treaty (Giordano et al. 2014). There has been a marked increase in the number of transboundary freshwater treaties every year since the middle of the last century, demonstrating a general “shift towards cooperative management of water and principles of that

management rather than the division of waters and specific water uses that had prevailed” earlier (ibid, p.255).

International water treaties therefore govern a significant global population, are increasing in number, and evolving in terms of form and purpose. However, treaties are often studied uncritically as a resolution of hydropolitical conflict, or as a signal that there is cooperation as opposed to conflict over a river. In this sense, the IWT has long been heralded as an iconic water treaty, primarily because it is one of the few areas of cooperation between Pakistan and India (Alam 2002; Ali 2007). Even though there is room to improve the treaty, it has generally been evaluated as effective given the era in which it was written (Zawahari and Michel 2018). A more critical approach understands treaties not as the resolution of hydropolitics, but as their displacement on to a highly formalized and specific field of geopolitical struggle (Thomas 2017b; Farnum et al. 2017; Zeitoun 2015). The approach adopted in this paper is that international water treaties are a battleground with very specific rules of engagement between state elites to control the distribution and development of transboundary freshwater disputes. This helps us interpret Pakistani and Indian struggles to claim the correct interpretation of the Indus Waters Treaty in international legal proceedings as the displaced manifestation of unresolved geopolitical tensions.

Because treaty interpretation is highly formalized, it is useful to review how international lawyers themselves understand the process. There are three major approaches to treaty interpretation. The *subjective* view holds that the purpose of interpreting a treaty is to determine the intention of the signatories of the treaty. The *objective* view holds that the primary purpose of interpretation is to determine the meaning of the text of the treaty. Finally, the *teleological* view is that the correct interpretation is that which furthers the objective and purpose of the treaty (Sinclair 1969). These approaches are not mutually exclusive. Interpretation in any concrete instance will probably use a combination of these approaches, even while giving more weight to one. For example, both the subjective and objective approaches give some weight to the intention of the treaty drafters – but the latter given the actual text of the treaty an authoritative position. While most international lawyers recognize these distinct approaches to treaty interpretation, the question of whether there are (or should be) rules for the interpretation of treaty is more

controversial. This question was formally approached by the international legal community in the Vienna Convention on the Law of Treaties (henceforth, the VC).

The VC was adopted on May 22, 1969 by the International Law Commission, after two decades of deliberation. Treaty interpretation is a wide-ranging and complex subject, where the logic of legal deduction and the art of textual interpretation came into conflict (Merkouris 2010a). The role of the *travaux* in treaty interpretation, analogous to “legislative history” in domestic law, has been the subject of some discussion in the international legal literature. Articles 31 and 32 of the VC explicitly identify the *travaux* as “supplementary” and seem to suggest a rigid hierarchy in which “textualists” will always have the upper hand over “subjectivists”. However, international jurists have argued that, in practice, recourse to the *travaux* is made at all stages of treaty interpretation (Sinclair 1969; Schwebel 1997; Gardiner 2008; Merkouris 2010b). To deny a prominent role to the *travaux* in the interpretative process “can hardly be said to be reflective of customary international law if it does not in fact fairly reflect State practice and judicial precedent,” (Schwebel 1997, p. 547). Thus, although the most widely acknowledged set of rules of treaty interpretation seem to favor the objectivist position, there is nevertheless room for a subjectivist approach that relies on the *travaux*.

Thus, the rules of treaty interpretation in international law as laid out in Articles 31 and 32 of the VC are ambivalent regarding the role of the *travaux* as a means of treaty interpretation. This built-in ambivalence in the rules of treaty interpretation is crucial to understanding the legal reasoning and procedures followed by international lawyers in specific cases like Kishenganga. To the degree that recourse to the negotiation archive forms a part of a legal argument in water politics, then, the act of interpreting the archive is a specific form of hydropolitical struggle. By analyzing how the treaty archive was referred to and read by international lawyers during the course of the Kishenganga arbitration, this paper illustrates how hydropolitical struggle take shape on the terrain of treaty interpretation.

To sum, treaty interpretation serves as a hydropolitical battleground for the negotiation of some of the powerful forces driving the geopolitics of globalization. Describing and explaining how these abstract “logics” take shape in a concrete hydropolitical context provides broader political

context for studies of river politics and contributes nuance to the abstract and structural approaches often preferred by geopolitical analysis. Although only part of a more complex picture of emergent norms of global water governance, water treaties are increasing in number and importance and the question of how to govern transboundary streams is increasingly urgent considering issues like global warming and the rapid spread of resource-intensive economic growth models around the world. Drawing on related strands of scholarship around global water governance, this paper attempts to understand international legal arguments for hydropolitical principles like downstream vulnerability and economic efficiency of basin development as manifestations of more general imperatives of statecraft placed on state elites in the contemporary world system. An “imperative” is an incentive structure that shapes the strategies of state elites. The next section briefly presents the historical and geopolitical context of Indus disputes between Pakistan and India.

III. Indus after independence: A legal geopolitical history

The Indus Waters Treaty was signed in 1960, after almost a decade of World Bank mediation (Alam 2002; Michel 1967). Although analysis of the treaty has been dominated by scholars of transboundary water governance and conflict, one strand of political geographic analysis does emphasize the broader political, cultural, and social impact of the treaty and the accompanying infrastructural development program (Haines 2016; Gilmartin 2015; Akhter 2015; Hill 2013; Mustafa 2007). Historical and political geographers have analyzed the treaty in the context of the decolonization of British India and its partition into the states of Pakistan and India (Haines 2016; Michel 1967), in the geopolitical context Cold War developmentalism and nation-building (Akhter 2015a, 2015b), and in relation to water security concerns (Mustafa et al 2013; Mustafa 2007). Others take the treaty as a lesson in the benefits of institutional design (Zawahiri 2009, 2008), the “technocratic spirit of the agreement” (Ali 2008, p. 169), and the involvement of third-party mediation (Mehta 1988; Birch et al. 2006). Akhter (2015a, 2015b) has highlighted how processes of geographically uneven development at multiple scales articulated to make the treaty possible and shaped its political impact, particularly in Pakistan. On the global scale, the treaty and the accompanying program of infrastructural investment in Pakistan, called the Indus Basin Development Fund Agreement, would not have been possible outside the geopolitical context of postwar capital surpluses in the US, the attempts to forge developmentalist states in

decolonizing Pakistan and India, and the ideology of anticommunism driving the decisions of planning and policy elites located in the core of the capitalist world system.

On the scale of the territorial state, patterns of historically uneven development and political power between the West and East wings of Pakistan was exacerbated by the huge amounts of development funding that were plowed into West Pakistan, where the Indus Basin is located. These geographically uneven investments contributed to the bloody succession of East Pakistan and the declaration of Bangladesh's independence in 1971. Moreover, the construction of major dams and other hydraulic infrastructures in the upstream region of Punjab during a period of military rule and forced political centralization caused resentment and bitterness on the part of historically underdeveloped and downstream regions within the Indus Basin, namely Sindh. Far from being consigned to the Cold War past, these infrastructural politics have continued to inform debate around the nature of federalism in Pakistan, and especially debates around water governance and the construction of new dams (Akhter 2017, 2015a, 2015b; Haines 2017; Mustafa et al. 2013). Thus, the IWT and the accompanying infrastructural program formed at the intersection of geographically uneven development at the scale of the state and the world economy. These spatial and economic tensions at the subnational scale had their counterparts at the inter-state scale of India-Pakistan relations.

The analysis of contemporary legal disputes under the IWT needs to be situated in this historical and geographical context to emphasize the contingent and contestable nature of regional hydropolitics. For more than forty years after the IWT was signed in 1960, no dispute arose between Pakistan and India that warranted the involvement of a third party. This does not mean there were no points of tension between the two countries over shared river waters. The Wullar Barrage and the Salal Hydroelectric Plant were significant sources of hydropolitical tension between India and Pakistan that were resolved bilaterally in the 1980s (Roic et al. 2017). These projects, along with numerous others, especially located on the Chenab tributary, were handled within the framework of meetings and negotiation of the Indus Waters Permanent Commission (IWPC), a bilateral institution established by Article VIII of the IWT to facilitate communication, coordination, and dispute resolution between Pakistan and India.

Article IX of the IWT details the procedure of dispute resolution (Salman 2008). An agreement on any question “concerning the interpretation or application” of the IWT should first be attempted by the IWPC. If a disagreement could not be resolved bilaterally, the IWT lays out two ways forward. If a dispute was determined to be of a technical nature, it would be adjudicated by a “Neutral Expert”, who was to be a prominent engineer selected by the World Bank. Annexure F of the treaty lists twenty-three possible points of question that fall within the jurisdiction of the Neutral Expert, many of which deal with determining legitimate Indian uses of the Western Rivers (the Indus main-stem, and the Jhelum and Chenab tributaries). If, however, the dispute exceeded a technical determination, it should be heard by a Court of Arbitration. Annexure G lists the composition of the 7-member Court of Arbitration, including two members each nominated by Pakistan and India. The remaining three members or “umpires” would include a “highly qualified” engineer, someone “well versed in international law”, and a Chairman of the Court, who “may, but need not be” an engineer or lawyer.

The Pakistani government referred a case to a Neutral Expert in 2005, and another to the Court of Arbitration in 2010. The former case was initiated by the request of the Pakistani government to the World Bank to select a Neutral Expert to determine whether India’s Baglihar Hydro-power Project was permissible under the IWT. The implications of the Baglihar decision, delivered in 2007 by the Swiss civil engineer Raymond Laffitte, have been analyzed in detail elsewhere (Akhter 2013; Salman 2008). For present purposes, it is enough to say that the Neutral Expert decided that it was crucial to maximize benefits from the water resources of the basin, and therefore that India should be allowed to utilize the latest desilting technologies in its river infrastructure. From the Pakistani perspective, however, this decision did not take enough account of a major purpose of the Indus Waters Treaty - to shield the vulnerable downstream riparian. In 2010, the time came once again for Pakistan to raise a dispute regarding Indian hydro-infrastructure. This time the Pakistani government argued that instead of a Neutral Expert, their objections should be heard by a Court of Arbitration, convened according to the guidelines provided in Annexure G of the IWT.

IV. Contesting Kishenganga: The interpretation of treaties

Pakistani officials have invoked the IWT's built-in external dispute resolution mechanism to challenge Indian projects on the river system only twice – in 2005 and in 2010. Both times the process generated decisions that were accepted, however reluctantly, by both Pakistan and India. The case of the Kishenganga Hydropower Project, on which judgements were delivered in 2013, was heard by an international arbitration panel. The legal hydropolitics around the Kishenganga project are on-going, with major controversies being reported in the Pakistani and Indian press in 2016, 2017, and 2018. This paper is limited to the decisions delivered by the Court of Arbitration in 2013. This section tracks how the Indian and Pakistani legal teams referred to the treaty archives to make competing arguments about the fundamental object and purpose of the IWT.

“Object and purpose” here mean the foundational principles that the treaty aims to put in effect. Determining the fundamental objectives and purpose of a treaty is inherently a matter of human interpretation. The analysis thus begins from the premise that treaties are not the resolution of hydropolitics or an inherently fair and apolitical way to handle hydropolitical disputes, but rather should be understood as a displacement. The Kishenganga Hydro-Electric Project is located on a tributary of the Jhelum River (itself a tributary of the Indus) in Indian-administered Kashmir. The project generates energy by dropping water 2,500 metres through a series of tunnels that begin from the Kishenganga River (called the Neelum River in Pakistan and Pakistan-administered Kashmir) and end 25 kilometers to the south, near Wullar Lake. On May 17, 2010, Pakistan requested the convening of a Court of Arbitration (the Court), under the dispute resolution mechanisms detailed in the Indus Waters Treaty of 1960 (IWT). The seven-member Court was composed of eminent jurists and one professor of engineering. The Court delivered a partial award in mid-2013, followed by a final award at the end of 2013. The Kishenganga ruling provides an excellent opportunity to analyze a legal approach to the treaty negotiation archive. Legal counsels for Pakistan, India, and the arbitration Court make frequent references to the *travaux* to formulate arguments, guide their reasoning, and justify their determinations (Crook 2014). I focus on the use of the *travaux* to formulate arguments regarding the object and purpose of the treaty.

The fundamental issue was the determination of legitimate uses by India of what the IWT designates as the “Western Rivers” of the Indus system – the Indus main stem, the Jhelum

River, and the Chenab River. The Pakistani team insisted that the main purpose of the IWT was to assure protection to Pakistan as the downstream riparian. This meant that the object and purpose of the IWT was to oblige India to “let flow” and “not permit any interference with” the water of the Western Rivers. This reading of the IWT was defended by reference to the first part of Article 3 of the IWT, which reads as follows:

- 1) Pakistan shall receive for *unrestricted use* of all those waters of the Western Rivers which *India is under obligation to let flow* under the provisions of Paragraph (2).
- 2) *India shall be under an obligation to let flow all the waters of the Western Rivers, and shall not permit any interference with these waters*, except for the following uses, restricted (except as provided in item (c) (ii) of Paragraph 5 of Annexure C) in the case of each of the river, The Indus, The Jhelum and The Chenab, to the drainage basin thereof:
 - a. Domestic Use;
 - b. Non-Consumptive Use;
 - c. Agricultural Use, as set out in Annexure C; and
 - d. Generation of hydro-electric power, as set out in Annexure D

Indian arguments, however, pointed out that the provisions laid out in Article 3.2 made the Pakistani reading ineffective. Article 3.2 details specific exceptions to the directive for India to “let flow” the waters of the Western Rivers. Why did the Treaty present these in detail, unless it was to make clear that India did indeed have some rights to use of the Western Rivers? In India’s reading, the emphasis on the above article would be that India’s obligation is restricted to “those waters of the Western Rivers which India is under obligation to let flow”. In other words, there existed waters of the Western Rivers, specified in Article 3.2., that India was *not* under any obligation to let flow.

Indian lawyers thus interpreted the fundamental purpose of the IWT to be to enable “the most complete and satisfactory utilization of the water”. Based on this interpretation, the development of hydro-power generation capacity on the Western Rivers was a desired effect of the IWT. India’s interpretation relies heavily on the preamble to the IWT, which states:

The Government of India and the Government of Pakistan, *being equally desirous of attaining the most complete and satisfactory utilization of the waters of the Indus system of rivers and recognizing the need, therefore, of fixing and delimiting, in a spirit of goodwill and friendship, the rights and obligations of each in relation to the other concerning the use of these waters and of making provision of the settlement, in a cooperative spirit, of all such questions as may hereafter arise in regard to the interpretation or application of the provision agreed upon herein, have resolved to conclude a Treaty in furtherance of these objectives...* (Indus Waters Treaty 1960).

Pakistani arguments point to the phrase after the second comma in the preamble, which states that there is a need for “fixing and delimiting” the “rights and obligation of each in relation to the other,” in support of its interpretation of the primary objective of the IWT. The contesting interpretations of the Treaty can be summed up in the principle to “let flow” the waters versus the principle of achieving “complete and satisfactory utilization” of the rivers. The phrasing of both the preamble and Article 3 of the treaty could lend itself to both interpretations. Both countries also state that the *travaux* supports their interpretation.

The legal teams of both countries went beyond the text of the treaty itself, to the archives of the treaty negotiations, to press their respective cases. Pakistani lawyers represented their territory as a vulnerable downstream space. The relevant defense in international law of downstream uses is the principle to “let flow”. Indian lawyers, on the other hand, turn to the historical record to express a technocratic developmentalist ideal of maximum development, irrespective of political geography. The international legal principle that expresses this interpretation is “complete and satisfactory utilization”. Both parties struggled to control how Indus waters were represented on the terrain of international law and treaty interpretation. Although referring to the treaty text or to broader principles of international water law, these legal interpretive strategies can also be read as specialized instances of more general geopolitical imperatives of state formation in the contemporary world system. The principle of “let flow” corresponds with a territorial imperative to protect vulnerable downstream territory, which can be termed “downstream territorialism”. The principle of “complete and satisfactory utilization” refers to the capitalist imperative to

maximally develop river basin resources, or what can be termed “basin developmentalism”. I return to this relation between the more general geopolitical imperatives formulated by Harvey (2003) and the specific form they take in hydropolitical conflict in the next section.

Two archival documents in particular were key to the Pakistani argument. The first document is the 1954 World Bank Proposal, which suggested a “division of waters” as the way forward with the negotiation. On February 5, 1954, Eugene Black, President of the World Bank, sent identical letters to the Indian and Pakistani heads of government which included a proposed new understanding from which to proceed with the negotiations. The 13-page letter can be divided into three sections; an introduction, the statement of the proposal, and some comments on the proposal. The introduction justifies the World Bank taking it upon itself to even offer up a proposal, as its role was supposed to be limited to providing its “good offices”. The catalyst for the greater involvement of the Bank was the observation that there was a huge difference in the water-sharing formulas proposed by each country. Whereas India claimed 100% of the flow of the Eastern Rivers (the Ravi, Sutlej and Beas tributaries), the Pakistani plan left India with only 30% of these flows.

Black identified “three basic difficulties” which frustrated the reaching of an agreement on a “fair division of the waters” in his letter. The first “lies in the fact that water supplies and storage potentialities are inadequate to the needs of the basin”. Another was the tension between Pakistan’s insistence on the protection of existing and planned future uses and India’s right to the use of the waters of the Indus to develop its own territory. And the third was the impracticality of running the Indus as a single unit, as it had been managed during British rule. The idea of joint administration of the Indus had formed a cornerstone of an earlier plan proposed in 1951. Black notes that “although the [negotiators] are planning on the basis of the development of the Indus Basin as an economic unit, two sovereign states are involved” which was not practical given that both countries would be “reluctant to have works regulating water supplies on which they depend constructed in territory controlled by another country...” (Black 1951, September 6).

Black acknowledged that operating the basin as an integrated unit was not practical strengthened the Pakistani point that the principle of operational independence within each country was a

basic premise of the treaty. He went on to elaborate on the World Bank Proposal of 1954 by highlighting two of its underlying principles. The first was a concession to the Indian position that “the principle that historic withdrawals of water must be continued, but not necessarily from existing sources”. It was the second principle, however, which the Pakistani legal team draws on to argue for an interpretation of the treaty that stressed operational independence. Black argued that the Bank Proposal holds that the “allocation of supplies to the two countries should be such as to afford the greatest possible freedom of action by each country in the operation, maintenance and future development of its irrigation facilities” and that it was desirable to “to avoid control by India over waters on which Pakistan will be dependent, and to enable each country to control the works supplying the water allocated to it and determine in its own interests the apportionment of waters within its own territories” (ibid).

Black thus emphasizes that India and Pakistan should have functional independence with regards to Indus waters. To this end, the Bank proposed that the entire flow of the Western Rivers would be allocated to Pakistan, and the entire flow of the Eastern Rivers would be allocated to India. Black notes that it is unlikely, given that the “mountainous topography is unfavorable for irrigation development”, that flows of the Indus main-stem into Pakistan would be threatened by India. He also notes that India should provide explicit guarantees that the flow of the Jhelum and especially the Chenab into Pakistan would not be interrupted. Pakistan’s case is further bolstered in the section of the letter titled “Comments on the Proposal”. Highlighting the distinct advantages offered by the 1954 Bank Proposal, Black says:

...each country will be independent of the other in the operation of its supplies...This should provide strong incentives to each country to make the most effective use of water, since any efficiency accomplished by works undertaken by either country...will accrue directly to the benefit of that country...By contrast, if the supplies from particular rivers were shared by two countries, the administrative complexity of arranging necessary adjustments...would be formidable....[Furthermore,] *the location of works serving each country on territories under its control, and the assurances against interference by either country with the supplies on which the other depends, should reduce the chances of disputes and tension* and contribute to improved relations.

The 1954 Bank Proposal, and Black's written elaboration of it, was the perfect document to support Pakistan's claims that the obligation of India to "let flow" was a major principle in the history of the Treaty (Schwebel et al 2013, p. 60). This document afforded Pakistan the maximum downstream protection ever on the table during the negotiation history of the IWT. The second key document for the Pakistani argument was a letter from William Iliff, a Bank Vice President, to the Pakistani finance minister, Mohammad Shoaib, dated February 6, 1960. In this letter, Iliff walks Shoaib through the process by which the final wording of Article 3 of the IWT was chosen. The following excerpts show the Article went through two iterations before reaching its final form. The first version was:

All the water of the Western Rivers shall be available for the unrestricted use of Pakistan, except as otherwise expressly provided in the Article (Iliff 1960, February 5).

The first version, Black explained, was unsatisfactory because "Pakistan cannot have the 'unrestricted use' of the Western Rivers while the waters of those Rivers are actually flowing in upstream territory outside the control of Pakistan". The wording was of Article 3(1) was therefore changed to

All the water of the Western Rivers, while flowing in Pakistan, shall be available for the unrestricted use of Pakistan, except as otherwise expressly provided in this article (ibid, emphasis in original).

Upon reflection, Black rejected this iteration as well. He realized that "this approach was likely to lead us straight into the political issues relating to Kashmir, which we are seeking to avoid." Indeed, the Indus and Kashmir disputes were physically and ideologically intertwined, and the negotiation process can be fruitfully read as one long process of abstracting the Indus Rivers out of their physical geographical context (Haines 2017). Pakistan's legal geopolitical use of this letter, however, draws from the following assurance conveyed by Black:

I am satisfied that there is no doubt and no reservation in the mind of any one, either in the Indian delegation, or the Bank, that the present language of Article III(1) and (2) imposes the treaty obligation on India to allow to flow down all the waters of the Western Rivers, except those required for the uses to be permitted under the terms of Article III(2). This has been the intention of the language and I think the language satisfied the intention (ibid, emphasis in original).

Black envisioned all the waters of the Western Rivers to flow to Pakistan, *except* those uses which were permitted by Article 3(2). Pakistan's argument, predictably, does not stress the exception. The Court summarizes Pakistan's argument based on the *travaux* in the following words: "In sum, for Pakistan, concern over India's control of the waters was a constant element of the Treaty-drafting process" (Schwebel et al 2013, p. 62).

Pakistan's interpretation took a "subjectivist" approach to treaty interpretation and thus made more use of the treaty archives. India's argument, on the other hand, stressed that the Preface and the treaty provided the appropriate means of interpretation. India firmly grounded its approach in an orthodox reading of the VC (Schwebel et al. 2013, p. 59), which does not put much weight on consulting the *travaux*. Nevertheless, counsel for India made recourse to the *travaux* to confirm its understanding of the fundamental principle of the IWT. India argued that the object and purpose of the IWT was to promote the economic development of the Indus Basin, and therefore the treaty should be interpreted to give effect to this.

Black wrote an earlier letter in November 1951 to the Prime Ministers of Pakistan and India that supports India's argument concerning the objective of the treaty. Black explained he thought the agreement of the Indus dispute should lead to the "cooperative development" of the Indus basin in the way that "most effectively to promote[s] the economic development of the Indus basin viewed as a unit". Critical to India's case was that argument that the IWT was always envisioned as an instrument to foster the generation of hydro-power, not just to facilitate irrigation. Indian arguments drew on the 1959 Heads of Agreement to make this point. This document clearly states that the "division of waters" entails giving rights to the flows of the Western Rivers to Pakistan, excepting certain permitted uses by India. One of these permitted uses was "Hydel

[hydro-electric] uses not involving consumptive use of water”. The Indian legal team also referred to the 1960 press release the Bank made upon the signing of the IWT, in which Indian rights to generate hydro-electric power from the flow of the Western Rivers was mentioned.

The Court of Arbitration determined the object and purpose of the treaty though a consideration of the legal meaning of paragraph 15(iii) of Annexure D of the IWT. This paragraph states that Indian hydroelectric plants on the Western Rivers could operate “only to the extent that the *then existing* Agricultural Use or hydro-electric use by Pakistan...would not be adversely affected”. Pakistan argued that that the correct interpretation of the term “then existing” should include any use of the water of the Western Rivers existing at the time that the Indian structure started operation. India argued that the “then existing” referred to uses existing at the time India informed Pakistan of its intention to build a structure. After first analyzing the syntax and grammar of paragraph 15(iii) to determine the “ordinary meaning” of the terms therein, the Court turned to the “context”. The court follows the VC’s definition of “context” to include only “other parts of the Treaty’s text” – the preamble, the annexes, and the headings under which articles were grouped. The purpose of considering the context in this way was to avoid looking at paragraph 15(iii) in a “textual vacuum”.

Turning from the text and the context to a consideration of the object and purpose of the IWT, the Court arrived at a balance between the Pakistani and Indian interpretations. Significantly, none of the *travaux*-based arguments presented by Pakistan and India concerning the object and purpose of the IWT were considered by the Court. Nor does the Court turn to the *travaux* to make its own determination. It relies entirely on the text of the IWT itself to make its interpretation. The Court acknowledges that India has rights to develop hydropower facilities on the Western Rivers. However, it also recognizes that one of the main purposes of the IWT was to assure Pakistan a measure of protection as the downstream riparian. Thus, on the one hand, the Treaty establishes that Pakistan enjoys unrestricted use of those waters of the Western Rivers which it is entitled to receive. On the other hand, the Treaty’s specifications in respect of India’s hydro-electric uses on the Western Rivers are inconsistent with denying to India the capacity to generate electricity from power plants built in conformity with the Treaty (Schwebel et al 2013, p. 154).

To sum, the Pakistani legal team drew extensively on the *travaux* to make its case that the main purpose of the IWT was to assure the operational independence of both states with respect to the Indus Rivers. This constitutes a politicized conception of the river, in which downstream vulnerability is at the forefront. The Indian legal team relied less on the *travaux* to make its case that the object and purpose of the IWT is primarily to promote economic development and utilization of the Indus Rivers. In its decision, the Court drew primarily on the text of the IWT itself to highlight the tension between Pakistan and India's interpretation. The Court's ruling balanced India and Pakistan's competing interpretations by acknowledging India's right to build on the Western Rivers, but with restrictions of dam design to limit the capability of the upstream riparian to control flows to the downstream. Thus, *travaux*-based arguments did not actually sway the Court's opinion. However, these arguments are not any less significant for understanding how lawyers navigate international law as a terrain of hydropolitical struggle. Legal strategies and the internal logic, structure, and rationale of international law were approached through an examination of the treaty archives. As this section has detailed, the Pakistani legal team made recourse to the archives to fashion an argument likely to be geopolitically effective on a terrain shaped by the rules of treaty interpretation.

The principles of "let flow" and "satisfactory utilization" are both contained in the text of the IWT. The Court's decision was to balance these principles – permitting India to build the Kishenganga structure but also limiting its ability to alter flows downstream to Pakistan. The decision does not mean that the underlying contradiction which gave rise to this conflict – between downstream territorial vulnerability ("let flow") and basin-wide development ("maximum utilization") has been resolved. Rather, this tension is inherent to any context of river sharing across international boundaries and over unevenly developed space, and international water treaties establish a formal structure for the mediation and negotiation of these principles.

Legal adjudication provides a unique window into the politics of river development because they highlight competing and mutually exclusive ideas regarding property, sovereignty, and development around rivers (Blomley 2008). International arbitration of transboundary waters

presents a moment when state elites, and the legal teams they employ, defend and challenge depoliticized conceptions of water development. Appeals to international law can be analyzed “as a way of dressing political claims in specialized technical idiom in the conditions of hegemonic contestation” (Koskeniemi 2004, p. 1999). In this light, legal hydropolitical contests such as the Kishenganga case represent attempts to depoliticize governance in so far as the aim of contestants is “to make their partial view of that meaning appear as the total view, their preference seem like the universal preference” (ibid). Treaty interpretation, and legal contest more broadly, thus represents a crucial moment in hydropolitics and related processes of hydrosocial territorialization (Boelens et al 2016). And as treaties become a more steadily more prominent part of global water governance and geopolitical tensions increase over internationally shared rivers, approaching treaty interpretation as a terrain of political contest will be crucial to understanding the linkages between state power and water development.

Moreover, the way lawyers argued the object and purpose of the IWT also reveals the deeper pressures and internalized imperatives that animate inter-state interaction in the context of a capitalist world economy. As discussed above, lawyers for Pakistan stressed that the object and purpose of the IWT was primarily to protect the downstream riparian from increased uses upstream. Lawyers for India, on the other hand, argued that the object and purpose of the treaty was to assure the maximum economic utilization of the resources of the Indus basin, irrespective of political boundaries. Both principles are embedded into the text of the IWT, and indeed its history (Haines 2017; Akhter 2015a, 2015b). Both principles are also present in the broader arena of customary international water law. These principles that structure the debate around the purpose of the IWT, of downstream territorial vulnerability and basin developmentalism, suggest a significant refinement of Harvey’s (2003) influential framework about the geopolitics of capitalism.

V. Territory, development, and hydropolitics

As we have seen, the imperatives to protect vulnerable downstream territory and develop the basin in a holistic manner are well represented in the international argument around Kishenganga. Rather than resolving hydropolitical tension, the IWT has shaped the way these imperatives are expressed and defended by state elites. While downstream territorialism and

basin developmentalism are concepts specific to hydropolitics, they do in fact express more general forms of geopolitical strategy. This section discusses the relationship between the downstream territorialism and basin developmentalism and the geopolitical contradictions of the capitalist state as outlined in an abstract way by Harvey (2003). Harvey identifies two major “logics”, or imperatives, that drive the actions of state managers and capitalists in the geopolitical arena. First, the capitalist imperative is driven by firms’ need to accumulate profits. This is the sphere of everyday economic relations and the flows of financial capital. The territorial imperative, on the other hand, is driven by the state’s need to establish control over specific territory and populations. This imperative historically predates capitalism. The interaction between the capitalist and the territorial imperatives can be complementary, contradictory, or indifferent, depending on the historical and geopolitical context. Harvey (2003) and others argue that capitalist imperialism is distinguished from the world-system at other points in history is that in the era of the “new” imperialism, the capitalist tends to dominate the territorial imperative (Cowen and Smith 2009), or even that the territorial logic is redundant in a world dominated by capital (Wood 2006).

Rather than arguing for the domination of one imperative over other, it is the distinction between territorial and capitalist imperatives that is crucial to understanding the geopolitics of capitalism. While distinct, the couplet of territorial/capitalist imperatives do present a rigid binary either. Rather, these two forces are parts of a dialectic movement shaped by specific historical, geopolitical, and institutional contexts (Lee et al. 2018; Keshavarzian 2010). It follows that these imperatives will also take specific form depending on socio-environmental context. The analysis of the contest around Kishenganga suggests that downstream territorialism and basin developmentalism demonstrate some specific qualities that set them apart from the more abstract logics of territory and capital. These qualities deserve explication.

First, downstream vulnerability is not a straightforward territorial impulse to control territory or populations. Arguing for downstream vulnerability is, more specifically, a way to account for the tension of dependence on extra-territorial natural resources. Invoking the principle of downstream vulnerability can be read in this light as an attempt to maintain and protect the environmental and economic integrity of a given political territory, but through a claim on some

degree of control or access to explicitly extra-territorial resources. In this way, the imperative of downstream vulnerability has contained within it a very different type of territorial imagination not bounded by political boundaries and that acknowledges environmental dependence on another sovereign. This differs significantly from Harvey's territorial logic, which is more concerned with the establishment of exclusive sovereign power over a parcel of territory. Following Lee et al. (2018), then, territorial concerns do not always correspond neatly with state boundaries but are instead historically produced in a variety of spatial forms. Moreover, this claim is not about controlling territory, but rather about securing resources for a given national economy. Downstream vulnerability is a territorial concern that has validity beyond the case of Pakistan and the Indus. While Pakistan may well be an extreme case of dependence on extra-territorial sources of water, the territorial imperative to defend against downstream vulnerability animates hydropolitics in world regions (Menga and Swyngedouw 2018; Conca 2006).

Similarly, basin developmentalism is not a straightforward expression of an abstract capitalist logic of accumulation. The agents of basin developmentalism are not firms or capitalists, but state elites and experts acting in the name of overall economic development. This is not the direct imperative to accumulate profits, but rather the social and political pressure to establish the infrastructural and environmental conditions for the intensified exploitation of natural resources. Moreover, the basin developmentalist imperative does not rely primarily on the language of profits, private property, free trade, or other discourses associated with capitalist private enterprise. Rather, the language deployed is an engineering one that features concepts like efficiency, technological innovation, and maximum utilization. The effect of deploying this language however, is to entrench role of construction, hydropower, and electric firms in fostering capitalist development. Specifying a basin developmentalist logic instead of an undifferentiated capitalist logic is important because it helps account for forms of state-led capitalist extension and intensification across much of the developing world (Keshavarzian 2010).

The geopolitical ecology of hydrosocial territories can be better theorized with the introduction of tailored categories such as downstream territorialism and basin developmentalism. Like the category of "hydro-hegemony" developed in hydropolitical analysis (Warner et al., 2017; Menga 2016; Zeitoun and Warner 2008, 2006), these categories are aimed at understanding the use of

ideological, institutional, cultural, and/or discursive weapons by state elites. But the categories of downstream territorialism and basin developmentalism also situate hydropolitical conflict in the context of the capitalist world economy, the inter-state system, and asymmetrical positions of power along a shared river. And while the hydrosocial territories approach places hydraulic infrastructures at the center of the research program, the approach developed in this paper enables a more geopolitically sensitive understanding of how state elites articulate their interests in conflicts centered on hydraulic infrastructure.

International legal contest provides a unique window into the geopolitics of transboundary rivers, as it provides an arena for a variety of state elites to challenge the existing hydrosocial world order (Farnum et al. 2017; Zeitoun 2015). This paper engaged the negotiation archive as a valuable and overlooked source for scholars of hydropolitics, legal geopolitics, and hydrosocial territories. Reading these archives through the perspective of downstream territorialism and basin developmentalism allowed the formulation of hydropolitical corollaries to the general schema Harvey (2003) used to sketch the forces driving the geopolitics of capitalism. These corollaries in turn illuminate the state/resource nexus as it plays out in contested water resources development on transboundary rivers.

VI. Conclusion

This paper analyzed Indian and Pakistani lawyers' engagement with the historical record of the negotiation of the Indus Waters Treaty, and sheds light on the neglected and under-theorized ecological dimensions of geopolitics. Close attention to the interpretive strategies of international lawyers has highlighted the importance of legal argumentation and treaty interpretation for hydropolitics. The inherent ambivalence of textual interpretation – or more specifically, the interpretation of international water treaties – leads to the possibility of conflicting interpretations, and hence legal struggle can become a crucial moment in the geopolitics of hydrosocial territories.

While geographers have discussed the connections between hydraulic infrastructures and state formation, the geopolitical dynamics that shape these processes have not been theorized adequately. By bringing the geopolitical analysis of the capitalist state – powerfully driven by the

logics of territory and capital - in conversation with the literature on hydrosocial territories, this paper has derived a dialectically interactive dyad of forces that has analytical relevance beyond Kishenganga and the Indus Basin. The IWT, forged in the furnace of decolonization and Cold War developmentalism, provides an especially revealing vantage point. Moving forward, hydropolitical analyses should continue to examine the imperatives of downstream vulnerability and basin-wide development as they interact across and through multiple scales (Akhter 2017). There is also room to explore how territorial and capitalist imperatives interact with non-human and non-state processes. Non-human processes would include fluvial, sedimentary and ecological processes, and non-state processes include the networked operations of activists for socio-environmental justice. Hydropolitical analysis that tackles the fundamental imperatives of state formation in the contemporary era should not force one or the other logic onto a given historical-geographical conjuncture. Rather, the aim is to explain and more compellingly describe complex situations by forming intermediate concepts in the space between abstract theory and grounded particularity.

Another area for future research is the role of international law in hydropolitics. From a critical geographic perspective, international law is not a purely formal or objective process, nor is it a mere polite mask for geopolitical power. In contrast to these antipodal positions, this paper advances an approach that understands international law as a specialized terrain of geopolitical struggle. While the formalism and procedures of international law can have the effect of depoliticizing conflict and struggle, international law can also provide a language and an authorized channel to politicize grievance (Akhter 2019; Mazower 2013). For example, the principle of downstream vulnerability that animating the Pakistani teams' strategic interpretation of the IWT is also essential to the defense of many marginalized and vulnerable riparian communities around the world. Crucially, this principle is not often given appropriate consideration in purely technical arenas of water adjudication – for example in the Baglihar case heard by the Neutral Expert (Akhter 2013). Insofar as a downstream position contributes to a community's socio-ecological vulnerability, international law could provide an important front in that for progressive geopolitical struggle. The paper also makes a methodological point about international law. The treaty archive, or *travaux*, is an overlooked source of research data that could shed new light on contemporary hydropolitics. Rather than consign history to the past, we

should approach archives as an interpretive battleground to understand the hydropolitical struggles of the present.

The challenge for critical political geographers and political ecologists is to identify and elaborate on the kernels of progressive potential buried in international water law, and to deploy them in a way that exceeds the securitizing impulses of the territorial state. In the context of South Asia, this includes the protection of vulnerable downstream populations at risk from top-down developmental upstream interventions *within* politically integrated territories such as Pakistan and India. This intellectual, legal, and geopolitical challenge for political geographic/ecological engagement with international law can only be gestured towards here. Hopefully, it is a challenge taken up by future researchers and activists embedded in varied hydropolitical contexts around the world.

References

- Ahmad J (2013) The Indus Waters Kishenganga arbitration and state-to-state disputes. *Arbitration International* 29(3): 507-538.
- Akhter, M. (2019) The proliferation of peripheries: Militarized drones and the reconfiguration of global space. *Progress in Human Geography* 43(1): 64-80.
- Akhter M (2017) Desiring the data state in the Indus Basin. *Transactions of the Institute of British Geographers* 42(3): 377-389.
- Akhter M (2015a) The hydropolitical cold war: The Indus waters treaty and state formation in Pakistan. *Political Geography* 46 65-75.
- Akhter M (2015b) Infrastructure nation: State space, hegemony, and hydraulic regionalism in Pakistan. *Antipode*, 47(4): 849-870.
- Akhter M (2013) Geopolitics of dam design on the Indus. *Economic and Political Weekly* 48(19): 24-26.
- Akhter M and Ormerod K J (2015) The irrigation technozone: State power, expertise, and agrarian development in the US West and British Punjab, 1880–1920. *Geoforum* 60 123-132.
- Alam U (2002) Questioning the water wars rationale: a case study of the Indus Waters Treaty. *The Geographical Journal* 168(4): 341-353.
- Ali S (2008) Water politics in South Asia: technocratic cooperation and lasting security in the Indus Basin and beyond. *Journal of International Affairs* 61(2): 167-182.
- Birch D, Rasheed A and Drabu I (2006) Sharing water: engineering the Indus Water Treaty. *Proceedings of the Institute of Civil Engineers* 159 31-38.

Black E (1951, September 6). Letter to Prime Ministers of India and Pakistan. The World Bank Group Archives, Washington D.C. Indus Basin Dispute General Negotiations Correspondence 1. Item Location: 182292B / N-471-3-03.

Blomley N (2008) Simplification is complicated: property, nature, and the rivers of law. *Environment and Planning A* 40(8): 1825-1842.

Boelens R Hoogesteger J Swyngedouw E Vos J and Wester P (2016) Hydrosocial territories: a political ecology perspective. *Water International* 41(1): 1-14.

Bridge, G. (2014). Resource geographies II: The resource-state nexus. *Progress in Human Geography*, 38(1), 118-130.

Carter B and Wiener A (2011) *International Law* 6th Ed. New York: Wolters Kluwer Law and Business.

Cowen D and Smith N (2009) After geopolitics? From the geopolitical social to geoeconomics. *Antipode* 41(1): 22-48.

Crook JR (2014) Arbitration-Indus Waters Treaty-treaty interpretation-negotiating history-Vienna Convention on the Law of Treaties-mitigating environmental harm. *American Journal of International Law* 108(2): 308-315.

Embassy of Pakistan in Washington, D.C. 1953, November 1. Pakistan – The Struggle for Irrigation Water – and Existence. The World Bank Group Archives, Washington D.C. Indus Basin Dispute General Negotiations Correspondence 4. Item Location: 182293B / N-471-3-03.

Farnum RL, Hawkins S and Tamarin M (2017) Hydro-hegemony and international water law. In Rieu-Clark, A, Allan, A, and S Hendry (eds.). *Routledge Handbook of Water Law and Policy*. 297-310.

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.

Gardiner R (2008) *Treaty Interpretation*. Oxford: Oxford University Press.

Gerstenberger, H. (2011). The historical constitution of the political forms of capitalism. *Antipode* 43(1): 60-86.

Gilmartin D (2015) *Blood and water: The Indus river basin in modern history*. Univ of California Press.

Haines D (2017) *Rivers Divided: Indus Basin Waters in the Making of India and Pakistan*. Oxford University Press.

Harris L (2014) Imaginative geographies of green: Difference, postcoloniality, and affect in environmental narratives in contemporary Turkey. *Annals of the Association of American Geographers* 104(4): 801-815.

Harris L and Alatout S (2010) Negotiating hydro-scales, forging states: Comparison of the upper Tigris/Euphrates and Jordan River basins. *Political Geography* 29(3): 148-156.

Harvey D (2003) *The New Imperialism*. Oxford University Press.

Hill DP (2013) Trans-boundary water resources and uneven development: crisis within and beyond contemporary India. *South Asia: Journal of South Asian Studies* 36(2): 243-257.

Iliff W (1960, February 5) Letter to Mohammad Shoaib. The World Bank Group Archives, Washington D.C. Indus Basin Dispute General Negotiations Folder 9. Item Location: 182294B / N-471-3-03.

Keshavarzian, A. (2010). Geopolitics and the genealogy of free trade zones in the Persian gulf. *Geopolitics* 15(2): 263-289.

Klabbers J (2003) International legal histories: The declining importance of *travaux préparatoires* in treaty interpretation? *Netherlands International Law Review* L: 267-288.

Klabbers J (2010) Virtuous interpretation. In Fitzmaurice, M., Elias, O., and P. Maerkouris (Eds.). Treaty Interpretation and the Vienna Convention on the Law of Treaties: 30 years on. Leiden: Martinus Nijhoff Publishers. pp. 17-37.

Koskeniemi M (2004) International law and hegemony: a reconfiguration. *Cambridge Review of International Affairs* 17(2): 197-218.

Koskeniemi M (2011) *The Politics of International Law*. Oxford: Hart.

Lee, S. O., Wainwright, J., & Glassman, J. (2018). Geopolitical economy and the production of territory: The case of US–China geopolitical-economic competition in Asia. *Environment and Planning A: Economy and Space* 50(2): 416-436.

Linton J and Budds J (2014) The hydrosocial cycle: Defining and mobilizing a relational-dialectical approach to water. *Geoforum* 57 170-180.

Loftus, A. (2018). Political ecology II: Whither the state? *Progress in Human Geography*, 0309132518803421.

Meehan K (2014) Tool-power: Water infrastructure as wellsprings of statepower. *Geoforum* 57: 215-224.

Mehta J (1988) The Indus Water Treaty: a case study in the resolution of an international river basin conflict: opinion. *Natural Resources Forum* 12(1): 69-77.

Menga F (2016) Reconceptualizing hegemony: the circle of hydro-hegemony. *Water Policy* 18(2): 401-418.

Menga F and Swyngedouw E (2018) States of water. In *Water, Technology and the Nation-State*. 17-34. Routledge.

Merkouris P (2010a) Interpretation is a science is an art is a science. In Fitzmaurice, M., Elias, O., and P. Maerkouris (Eds.). *Treaty Interpretation and the Vienna Convention on the Law of Treaties: 30 years on*. Leiden: Martinus Nijhoff Publishers. 1-13.

Merkouris P (2010b) 'Third Party' considerations and 'corrective interpretation' in the interpretive use of travaux préparatoires: Is it Fahrenheit 451 for preparatory work?. In Fitzmaurice, M., Elias, O., and P. Maerkouris (Eds.). *Treaty Interpretation and the Vienna Convention on the Law of Treaties: 30 years on*. Leiden: Martinus Nijhoff Publishers. 75-95.

Michel A (1967) *The Indus rivers: A study of the effects of partition*. New Haven: Yale University Press.

Mueenuddin G (1957, July 27) Letter to William Iliff. The World Bank Group Archives, Washington D.C. Indus Basin Dispute General Negotiations Folder 6. Item Location: 182293B/N-471-3-03.

Mueenuddin G (1958, December 22) Letter to William Iliff. The World Bank Group Archives, Washington D.C. Indus Basin Dispute General Negotiations Folder 7. Item Location: 182294B / N-471-3-03.

Mustafa D (2007) Social construction of hydropolitics: The geographical scales of water and security in the Indus basin. *Geographical Review* 97(4): 484-501.

Mustafa D, Akhter M, and Nasrallah N (2013) *Understanding Pakistan's Water-Security Nexus*. Washington, DC: United States Institute of Peace.

Naylor S (2017) Historical geography in Transactions. *Transactions of the Institute of British Geographers* 42(4): 485-488.

Roic K, Garrick D, and Qadir M (2017) The ebb and flow of water conflicts: A case study of India and Pakistan. In *Imagining Indus: Overcoming Water Insecurity in the Indus Basin*. 49-66. Springer International Publishing.

Salman S (2008) The Baglihar difference and its resolution process – a triumph for the Indus Waters Treaty? *Water Policy* 10 105-117.

Schwebel S (1996) May preparatory work be used to correct rather than confirm the ‘clear’ meaning of treaty provision?. In Makarczyk, J. (Ed.). Theory of International Law at the Threshold of the 21st Century: Essays in Honour of Krzysztof Sukubiszewski. The Hague: Kluwer Law International. 541-547.

Schwebel S, Berman F, Wheeler H, Caflisch L, Paulsson J, Simma B and Tomka P (2013) Partial Award in the Matter of the Indus Waters Kishenganga Arbitration. Available at: <http://www.pca-cpa.org/shownews.asp?nws_id=351&pag_id=1261&ac=view> Accessed April 18, 2013.

Sneddon C (2012) The ‘sinew of development’: Cold War geopolitics, technical expertise, and water resource development in Southeast Asia, 1954–1975. *Social Studies of Science* 42(4): 564-590.

Sneddon C and Fox C (2006) Rethinking transboundary waters: A critical hydropolitics of the Mekong basin. *Political Geography* 25(2): 181-202.

Sinclair I (1973) *The Vienna Convention on the Law of Treaties*. Manchester: Manchester University Press.

Swyngedouw E (1999) Modernity and hybridity: nature, regeneracionismo, and the production of the Spanish waterscape, 1890–1930. *Annals of the Association of American Geographers* 89(3): 443-465.

Swyngedouw E and Williams J (2016) From Spain's hydro-deadlock to the desalination fix. *Water International* 41(1): 54-73.

Thomas K (2017a) The river-border complex: a border-integrated approach to transboundary river governance illustrated by the Ganges River and Indo-Bangladeshi border. *Water International* 42(1): 34-53.

Thomas K (2017b) The Ganges water treaty: 20 years of cooperation, on India's terms. *Water Policy* 19: 724-740.

Usher M (2018) Desali-nation: Techno-diplomacy and hydraulic state restructuring through reverse osmosis membranes in Singapore. *Transactions of the Institute of British Geographers*. <https://doi.org/10.1111/tran.12256>

Warner J, Mirumachi N, Farnum RL, Grandi M, Menga F, and Zeitoun M (2017) Transboundary 'hydro-hegemony': 10 years later. *Wiley Interdisciplinary Reviews: Water* 4(6): 1-13.

Wood E (2006) Logics of power: A conversation with David Harvey. *Historical Materialism* 14(4): 9-34.

Zamindar V (2007) *The Long Partition and the Making of Modern South Asia: Refugees, Boundaries, Histories*. Columbia University Press.

Zawahri N (2008) Designing river commissions to implement treaties and manage water disputes: the story of the Joint Water Committee and Permanent Indus Commission. *Water International* 33(4): 464-474.

Zawahri N (2009) India, Pakistan, and cooperation along the Indus River system. *Water Policy* 11, 1-20.

Zeitoun M (2015) The relevance of international water law to later-developing upstream states. *Water International* 40(7): 949-968.

Zeitoun M and Warner J (2006). Hydro-hegemony—a framework for analysis of trans-boundary water conflicts. *Water Policy* 8(5): 435-460.

Zeitoun M, Cascão AE, Warner J, Mirumachi N, Matthews N, Menga F, and Farnum R (2017) Transboundary water interaction III: contest and compliance. *International Environmental Agreements: Politics, Law and Economics* 17(2): 271-294.