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Abstract

The concept of fluid sovereignty denotes configurations of state authority in which flows of living and non-living things, within and across borders, render insecure claims of unconditional territorial control. Loss of monopoly control of the means of violence within a territory conventionally signals weak political sovereignty. Bordering Israel (including the occupied Golan Heights) and Syria, the Hasbani Basin, southern Lebanon, seems to exemplify such sovereign failings: over decades, rival security providers have provoked political instability and conflict in the region. However, fluid sovereignty brings to the fore state-nature relations neglected in scholarship on "fragile" or "failing" states. Informed by geographical work on hybrid sovereignties and vital materialism, we show how sovereign claims over the Hasbani Basin extend to (sub)terranean water sources and rainfall-dependent agricultural lands, both of which are deeply securitized. Incomplete centralization and territorialization by Lebanon of the Hasbani Basin evinces fractured state nature—the inability of the state to realize volumetric control of, and authority over, basin waters. This state nature is coproduced by the fluid materiality of the waters themselves, whose hydro-climatic circulation and contingencies are at odds with territorial designs for volumetric control. For rural communities in the Hasbani Basin economically dependent on access to agricultural water, field research reveals a practical experience of fluid sovereignty, both in adapting to water variability and also navigating use of agricultural borderlands subject to conflict-related dangers. Recent conflict spillovers from the Syrian war have reinforced, for the majority Druze population, the low legitimacy of Lebanese state nature.

(1) Title Page

Fluid sovereignty: State-nature relations in the Hasbani Basin, southern Lebanon

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(2) Abstract

The concept of fluid sovereignty denotes configurations of state authority in which flows of living and non-living things, within and across borders, render insecure claims of unconditional territorial control. Loss of monopoly control of the means of violence within a territory conventionally signals weak political sovereignty. Bordering Israel (including the occupied Golan Heights) and Syria, the Hasbani Basin, southern Lebanon, seems to exemplify such sovereign failings: over decades, rival security providers have provoked political instability and conflict in the region. However, fluid sovereignty brings to the fore state-nature relations neglected in scholarship on "fragile" or "failing" states. Informed by geographical work on hybrid sovereignties and vital materialism, we show how sovereign claims over the Hasbani Basin extend to (sub)terranean water sources and rainfall-dependent agricultural lands, both of which are deeply securitized. Incomplete centralization and territorialization by Lebanon of the Hasbani Basin evinces fractured state nature—the inability of the state to realize volumetric control of, and authority over, basin waters. This state nature is co-produced by the fluid materiality of the waters themselves, whose hydro-climatic circulation and contingencies are at odds with territorial designs for volumetric control. For rural communities in the Hasbani Basin economically dependent on access to agricultural water, field research reveals a practical experience of fluid sovereignty, both in adapting to water variability and also navigating use of agricultural borderlands subject to conflict-related dangers. Recent conflict spillovers from the Syrian war have reinforced, for the majority Druze population, the low legitimacy of Lebanese state nature.

Key words: *sovereignty*, *nature*, *Hasbani Basin*, *Lebanon*

(3) Text

Introduction

Political instability and violent conflict are routine markers for contested or collapsing state authority in the post-Cold War world, especially in those dangerous, unruly spaces judged by the West to threaten national and international security. Whether "fragile," "failing," or "failed," the absence of effective sovereignty is often equated with the dispersal of control of the means of violence amongst rival security providers (Zartman 1995; Rotberg 2004; von Trotha 2005); and despite critical objections, including from geographers, to a causal inference that bypasses wider geopolitical and geo-economic drivers (Sidaway 2003; Elden 2009; Jeffrey 2009; Fregonese 2012; Grimm, Lemay-Hébert, and Nay 2014), the global policy currency of fragile statehood is bolstered by Western cartographies of conflict in which weak governments are disabled or overrun by other wielders of armed force.

Bordering Israel (including the occupied Golan Heights) and Syria, the Hasbani Basin, southern Lebanon (Figure 1), has long witnessed political instability and armed conflict. Over decades, (para)military actors have undermined Lebanese territorial sovereignty and fueled ethno-religious tensions. In the 1970s the presence in southern Lebanon of the Palestine Liberation Organization, engaged in violent exchanges with Maronite Christians and Israel, triggered a civil war that unleashed sectarian antagonisms and rival interventions by external powers. Israeli invasions in 1978 and 1982, followed by occupation of the south, fuelled a Shi'a-led resistance which, with Iranian and Syrian support, evolved into Hizbullah (Abboud and Muller 2012, 29-34; Avon and Khatchadourian 2012, 23-33). The majority Druze population

in the Hasbani Basin, politically marginalized at the national level, presently coexists pragmatically, if uneasily, with Hizbullah and its Shi'a supporters. At the time of the 2005 "Cedar Revolution" leading Druze politicians (notably Walid Jumblatt) were part of a national coalition opposing Hizbullah and Syrian interference in Lebanon (Norton 2007, 126), but more recently a perceived escalating threat posed both by Israel and Syrian-based Islamist militants has created shared security concerns. In the Hasbani Basin current instability is most obvious in the tense stand-off between Hizbullah and the Israeli military, which marks out a dynamic zone of insecurity across, and beyond, a United Nations-demarcated Blue Line.[1] Monitored by the United Nations Interim Force in Lebanon (UNIFIL), the Hasbani borderlands include both signposted sites of high risk (e.g. minefields) and less visible, but still pervasive, spaces of danger (e.g. shifting "no-go" areas).

INSERT FIGURE 1 HERE

The theoretical concern of this article is with state-nature relations neglected in scholarship on fragile states. Informed by work on hybrid sovereignties and vital materialism, we show how sovereign claims over the Hasbani Basin extend to (sub)terranean water sources and rainfall-dependent agricultural land, both of which are deeply securitized. Incomplete centralization and territorialization by Lebanon of the Hasbani basin evinces a fractured state nature—the inability of the state to assert volumetric control of, and authority over, basin waters. This state nature (Whitehead, Jones, and Jones 2007) is abstracted from, but co-produced by, the fluid materiality of the waters themselves, whose hydro-climatic circulation and

contingencies are at odds with territorial designs for volumetric control. To capture the onto-political dynamic here, we label as fluid sovereignty those configurations of state authority in which flows of living and non-living things, within and across borders, render insecure claims to unconditional territorial rule.

The materiality of, in the Hasbani case, contested hydrological volumes and flows cannot be separated from the experience of water- and weather worlds with their own turbulent rhythms (Ingold 2015, 69-72; Steinberg and Peters 2015, 256). Geographical research on conflict-affected borderlands is increasingly attuned to the everyday experiences and practices of those encountering fractured projections of sovereignty (Alatout 2009; Doevenspeck 2011; Korf and Raeymaekers 2013). Regional field research conducted in 2013 and 2014—comprising a purposive survey of 294 farming households, a focus group in Hasbaya and follow-up interviews— centered on agricultural communities in the basin.[2] The empirical interest in farming communities is justified by the fact that up to 70 per cent of the regional population works in agriculture and also that this is a water-dependent sector sensitive to hydro-political instability and hydro-climatic changes, including projected dryer and warmer conditions as a consequence of climate change (Farajalla et al. 2014).The field research examined the affective conditions of fluid sovereignty; that is, how farming households experiencing an unstable environment practically cope with uncertain access to agricultural water.

In the next section, the theoretical contours of fluid sovereignty are first set out with reference to hybrid models of sovereignty, highlighting their application to southern Lebanon. Drawing on Derrida's notion of divisible sovereignty, we extend this hybrid

framing to the entwining of human and more-than-human elements in what Depledge calls an “assembly of geopower” (2015, 91)—the means by which forms of matter and life are calibrated, combined and organized to facilitate territorial governance. Empirically, the article then reveals three salient, inter-related figures of fluid sovereignty in the Hasbani Basin: (i) the hydro-political articulation of state natures as disputed volumetric claims over water; (ii) the politically destabilizing effects of unpredictable hydro-climatic flows circulating within and across territorial borders; and (iii) the draining of state legitimacy, in the eyes of Hasbani Basin farmers, arising from the perceived failure of the Lebanese state to secure for them safe, reliable access to agricultural water. In the conclusion we consider whether fluid sovereignty is arguably no more than a heightened condition of the very distributive system of sovereignty itself, where material and symbolic flows may escape projections of volumetric authority.

Fluid sovereignty

Fluid sovereignty thus denotes state-nature relations in which flows of living and non-living things unsettle territorialized systems of state power. we follow here the account of Whitehead, Jones, and Jones (2007, 14-15) that modern statehood features the extraction and use of natural (material) forms to exercise political power. This “framing” of the natural world is seen to operate through acts of centralization and territorialization: centralization entails the generation of standardized knowledge about nature that creates a field of state power over particular facets of nature; while territorialization involves the use of spatial metrics and geopolitical strategies to control and regulate nature. However extensive these processes, the production of

state nature is beset by material overflows which elude and thereby limit acts of sovereign authority (Whitehead, Jones, and Jones 2007, 15-16; Cunningham 2012); thus, transboundary water flows give biophysical permeability to geopolitical borders, circumscribing efforts by states to assert permanent sovereignty over hydrological resources.

What warrants fluid sovereignty as a descriptor of the Hasbani watershed is that the Lebanese state, in the presence of competing power-wielders, has not secured a monopoly on effective centralization and territorialization of basin waters. While the bulk of the Hasbani River is on Lebanese territory, its downstream contribution to the upper Jordan River is a source of disputed volumetric control with Israel—one of a number of flashpoints over water allocation in the wider Jordan Basin (Feitelson and Fischhendler 2009; Messerschmid and Selby 2015). The inability of Lebanon effectively to uphold sovereign claims over what is seen as a national water resource, frustrated in its plans to extract more water from the Hasbani River, attests to a sharp asymmetry over control of its flow regime. Zeitoun et al. capture neatly the relevant power relation with their notion of “remote control” whereby Israel is able to exert a governing influence over the Hasbani without direct physical control of the territory through which it runs (2013). However, while Zeitoun et al. view this as a “decoupling of territory and water” (2013, 101), we argue below that it expresses fluid relations of sovereignty. Lebanon’s territorial deficit over the Hasbani Basin can be gauged in political geographic terms as a shortfall in geopower—“the statecraft and technologies of power that make territory and the biosphere accessible, legitimate, knowable, useable” (Parenti 2015, 835: see also Elden 2013, 49).

Recent discussion in critical political geography on state-nature relations has acknowledged the material embeddedness of territorial practices (Clark 2013; Depledge 2015; Grundy-Warr, Sithirith, and Li 2015; Ioris 2015; Steinberg and Peters 2015). Extending volumetric understandings of territory—as a bundle of political technologies for projecting power over land and terrain (Elden 2013, 36)—to encompass the geophysical conditions of sovereign agency, reveals territorial claims as efforts to secure valued flows of living and non-living things. For Grundy-Warr, Sithirith, and Li (2015, 94), the fluvial social-ecological-biophysical boundaries of contested watersheds offer palpable evidence of volatile material effects issuing from territorial moves to secure hydrological flows. Alongside volumetric claims from competing sovereigns, the complex hydrogeology of the Hasbani River, evident from the high seasonal and inter-annual variability of its flow regime, co-produces an unstable hydro-political nature.

That fluid sovereignty is apposite as a characterization of state-nature relations in the Hasbani Basin reflects also Lebanon's hybrid statehood, featuring patron-clientistic networks of largely sectarian power supported by rival international sponsors. These patron-client dynamics structure territorialized systems of land use governance in the south, heavily conditioning, for example, the scope of quarrying activities, agricultural subsidies and infrastructure development. In southern Lebanon the geopolitical dominance of Hizbullah is conventionally measured against its independent military capability (backed by Iran) as a self-proclaimed party of national resistance (muqawama) protecting Lebanese sovereignty from Israeli aggression and the threat of Sunni jihadist groups operating from Syria (Dionigi 2014, 107-109; Khatib 2014, 116-17). From the perspective of Western governments, Hizbullah's role in wider

circulations of violence and criminality in the Middle East amplifies the contingency of Lebanese sovereignty (Elden 2009, 85-99; Borneman 2012, 124-26; United States Drug Enforcement Administration 2016). However, Hizbullah has a strong political base of support in the south, oversees an extensive network of social service provision and has normalized its relationship with the state, taking part from 2008-11 in a national unity government. Fregonese (2012) deftly separates out the different constructions of "weak" Lebanese statehood at play in international and national discourses, arguing that Lebanon's domestic sovereignty is materially enacted through complex hybridizations between state and nonstate actors. Lebanese water governance exhibits these hybrid properties, featuring, for example, competing logics of geopower between patron-client structures and Western-dominated international development agencies. Eid-Sabbagh (2015, 129-163) documents how the efforts of external donors to finance, and reform, Lebanese water management according to marketization norms, has floundered in the face of resistance from patron-client networks (including in the south) protecting their sources of rent.

Not surprisingly, the contingent nature of Lebanese sovereignty has invited application of Giorgio Agamben's (1998; 2005) work on sovereign power and the state of exception, a major wellspring for critical geographical analysis of sovereignty and violence (e.g. Gregory 2006; Kearns 2006; Minca 2007; Reid-Henry 2007). In his research on Palestinian refugee camps in Lebanon, Ramadan (2005) encounters the "zone of indistinction"—between law and nature, outside and inside, violence and law—that, for Agamben (1998, 64), occupies the charged borderlands of sovereign power. The "multiple partially sovereign actors" (Ramadan 2005, 158) contesting power in and beyond these camps are symptomatic of a Lebanese sovereigntyscape

in which the means of coercion have yet to be effectively controlled by the state, despite the call of the UN Security Council, under resolution 1559 (2004) for “strict respect of the sovereignty, territorial integrity, unity, and political independence of Lebanon under the sole and exclusive authority of the Government of Lebanon throughout Lebanon”.

Critical receptions of Agamben by geographers have taken issue with his unremitting statism, conflating political authority with a unitary, omnipotent state (Agnew 2005, 439; Elden 2009, 55-61; Jones 2012, 687). More central here to the fluid constitution of Lebanese state nature in the Hasbani Basin—its entanglement of human and more-than-human elements—is Agamben’s assertion that “the fundamental activity of sovereign power is the production of bare life as originary political element and as threshold of articulation between nature and culture, zoē and bios” (1998, 181). Modern sovereign power, in Agamben’s formulation, rests on the technological regulation of bare life in order facilitate “biopolitical” control over human individuals and populations (Smith 2009, 105). A forceful objection by Jacques Derrida to philosophy of nature at play here is that, in muddling the Aristotelian notions of bare life (zoē) and individual or group life (bios), Agamben offers an essentialist idea of sovereignty insensitive to historical-geographical configurations of political authority (Derrida 2009, 315-317: see also Coleman and Grove 2009, 504). For Agamben sovereignty is constituted in part by the political domination of bare (“natural”) life. This mirrors Western self-conceptions of political sovereignty founded on a concept of human responsibility in which forms of nonhuman life are made mute (Derrida 2009, 116-20). Critically interrogating this anthropocentric stance, and the wider nature/culture oppositions sustaining it, leads Derrida to propose the idea of divisible

sovereignty: “the question is not that of sovereignty or nonsovereignty but that of the modalities of transfer and division of sovereignty said to be indivisible—said and supposed to be indivisible but always divisible” (2009, 291).

Fluid sovereignty is one such modality of divisible sovereignty, not only signifying multiple wielders of (geo)power within a territory, but signaling also Derrida’s ontological claim that the human exceptionalism of political sovereignty unravels amidst the porous boundaries between the human and nonhuman. The anthropocentric (Hobbesian) fiction is of the sovereign state as instituted solely through human control and convention, outside that which is natural (Derrida 2009, 42). Yet at the same time representations of political sovereignty are, Derrida claims, often suffused by figures of human animality or bestiality, such as contemporary references to the savagery of “rogue states” (2009, 19-20). As Whitehead, Jones, and Jones note, “in order to frame nature the state itself must become involved with, and entangled in, a range of objects, devices and things” (2007, 54). In the section of the article on hydro-climatic flows and sovereignty, we draw on germane work from environmental geography on so-called “vital” or “immanent” materialism (e.g. Bingham and Hinchcliffe 2008; Braun 2008; Clark 2010; Lorimer 2012), scholarship reflecting, and feeding, a more general rise of geophilosophy in the social sciences and humanities (Bennett 2010; Clark 2011; Woodward 2013; Ingold 2015). Vital materialism posits a nonhuman nature actively assembling with, and independently affecting, the discursive and material practices of humans in emergent groupings of matter-energy. With their topological unity, watersheds are a palpable expression of such an assemblage, as the “natural” water flows within a physical catchment become reconstituted by the co-mingling of human and non-human elements.

Treating the ocean as a spatial trope for reimagining geographical work on territory as volume, Steinberg and Peters (2015) coin the term “wet ontology” to capture the dynamic, more-than-human materiality of geographical moves to secure volume. This materiality is seen as inseparable from experiences of place and affective relations (2015, 256). In examining below water-related vulnerabilities of farming households in the Hasbani Basin, we consider the lived experience of fluid sovereignty as registered by those with a livelihood dependence on secure access to agricultural water. The co-production of fluid sovereignty by unstable hydro-political and hydro-climatic flows is received as a threat to livelihoods, prompting from farmers a range of coping practices. Revealed are mutual and affective relations that respond autonomously to a precarious hydrosphere, challenging the legitimacy of a Lebanese state unable to exert volumetric control over basin waters. We turn now to Lebanese state framings of the Hasbani Basin, which bear a divisible sovereignty imprint of stalled and interrupted processes of post-colonial state formation.

State nature(s)

Lebanese efforts to centralize and territorialize Hasbani water resources as state nature have faltered in the face of cross-border pressures from a stronger neighbouring sovereign, but also reveal long-standing domestic failings to exercise epistemic and political authority over the water yield of the Hasbani River. The (post)colonial roots of Lebanon’s underdeveloped water resources can only be hinted at here, but reveal an enduring subordination of hydrological self-determination to the interests of occupying states and other external powers.

Ottoman codification of water use from the 1870s corresponded with the institutionalization of sectarian administrative structures serving favored client groups rather than broader constituencies of need. Under the French mandate in the 1920s, decrees vested state ownership of water resources as part of the public domain, creating the legal basis for ostensible moves to modernize water sector development and management, yet in practice reinforcing sectarian (notably Maronite Christian) preferences for supplying urban centers (Mallat 1995; Makdisi 2012). At the same time, the fluid southern border of Lebanon, subject to competing French and British claims in the wake of the 1916 Sykes-Picot Agreement, was moved northwards to concede to British Mandate Palestine significant water resources (the Hula Marshes) in anticipation of future Jewish settlement (Zeitoun et al. 2012, 23-24). After the founding of the State of Israel in 1948, Arab-Israeli disputes over water utilization in the upper Jordan deployed hydro-strategic claims within the broader regional conflict, prompting unsuccessful US efforts under the Johnston Mission to desecuritize state water framings of the Jordan River (Alatout 2011).

The stalled development of the water sector in southern Lebanon is an historical-geographic flipside of the Israeli hydraulic mission of centralized water development and the territorialization of sovereign claims over the Jordan River, which saw the development from 1955 of a national water carrier conveying water from the upper Jordan to southern Israel (Feitelson and Fischhendler 2009; Alatout 2011). While the simultaneous Lebanese development of hydroelectric dams signaled a centralizing drive by the state to fuel economic growth, unrealized plans to modernize irrigation infrastructure heightened the marginalization of southern agricultural communities. Makdisi (2012, 214) attributes the political rise of the Shi’a in southern Lebanon at

least in part to this systemic neglect. Hizbullah's hybrid sovereignty, forged first in military exchanges with Israel in the 1980s, exploited domestic and external deficits in Lebanese sovereign authority, including its weak territorial control of water resources in the Hasbani Basin. Since the Israeli bombing in 1965 of a Hasbani-Banias water diversion project, water infrastructure in southern Lebanon has frequently been damaged by Israeli military actions, with the systemic degradation of the water sector—including irrigation systems— a direct and indirect consequence of the Israeli occupation of the region from 1982.

The end of the occupation in 2000 coincided with moves by the Lebanese state to centralize a fragmented system of water governance, enacting laws to create regional water establishments (including for southern Lebanon) with a view, promoted by foreign donors, to future privatization (Makdisi 2007, 374-76: Eid-Sabbagh 2015, 95). Plans were drawn up for major water sector investments in the Hasbani catchment, including the Ibl al Saqi Dam Project to expand regional irrigation networks, but progress was hampered by resource constraints and politicized bargaining featuring a complex array of (para)state institutions. At the same time, there remains endemic corruption in local water resources management: it is widely alleged, for example, that any proposed water project will only go ahead with agreed backhand payments to local politicians.[3] Major water allocation and management responsibilities in the Hasbani Basin are contested between the Ministry of Energy and Water and the strategic national bodies—the Council for Reconstruction and Development, the Council of the South—charged with regional recovery. Environment and development NGOs in the Hasbani Basin claim that the

national government has for decades exercised little authority in the region, continually failing to meet the water and sanitation needs of local communities.[4]

Lebanon's incomplete territorialization of the Hasbani catchment is evident in its weak volumetric control of basin waters. Part of this shortfall in geopower derives from a lack of authoritative knowledge of regional water resources: at the national level the monitoring of hydrological data is fragmented and unreliable, with no central agency analysing and disseminating relevant information (Eid Sabbagh 2015, 45; Farajalla et al. 2015, 21). Flow records of the Hasbani River ceased during the civil war and Israeli occupation, but drawing on data published by the Hydrological Service of Israel, recent estimates of mean annual flow converge at 122-23 MCM (million cubic meters) (Zeitoun et al. 2012, 42; UN-ESCWA and BGR 2013, 181). Across the whole basin, abstractions from both river and groundwater sources are estimated at no more than 8 MCM/year (Zeitoun et al. 2012, 51). The lack of authoritative data on precipitation, infiltration and aquifer recharge creates uncertainty over precise "natural" groundwater flows; yet substantial groundwater fluxes from southern Lebanon into Israel demonstrate a major hydrological obstacle to greater physical control by Lebanon of Hasbani waters.

At the southern end of the Hasbani River, gravity-led transfers into Israel are precisely monitored by a series of flow gauges, for Israel's greater epistemic authority over transboundary water balances, driven by a state security imperative of hydro-political control, supports a status quo of sovereign entitlement according to established prior use. As noted above, this is accurately labeled as "remote control" (Zeitoun et al. 2013) in the sense that ongoing water use is maintained without direct

physical control over the hydrological terrain from which that water issues. We claim, though, that in the Hasbani borderlands this volumetric hold rests on the continual (re)production of sovereign (Israeli) violence. Whether threatened or exercised as military force, this projection of power also imposes, from a Lebanese perspective, the slow violence of externally constrained water resources development. In other words, the surface water and groundwater flows of the Hasbani Basin are partly constituted by the strategic calculations and interventions of a hegemonic sovereign. Strident Israeli opposition to increased Lebanese water abstractions in the region has delayed the Ibl al Saqi Dam Project and the limited the Wazzani Water Supply Project. A vital part of the latter initiative is the Wazzani Pumping Station (Figure 2) designed to reach a capacity of 4.4 MCM/year, but its announcement in August 2002 by the Council of the South provoked Israel to warn of war on account of its perceived downstream impacts (UN-ESCWA and BGR 2013, 198).

INSERT FIGURE 2 HERE

That this was not an idle threat seemed to be borne out four years later, during the 2006 war between Israel and Hizbullah, when the Wazzani Pumping Station Reservoir was partly destroyed by Israel Defense Forces (IDF) shells—part of extensive IDF-related damage to public water reservoirs and other water infrastructure in southern Lebanon. A recent survey of this damage cautions against attributing hydro-political motives to Israeli actions, even if the degradation of Lebanese water infrastructure reinforced the asymmetric circulation of transboundary water resources in the region (Zeitoun, Eid-Sabbagh, and Loveless 2014). Khayyat and Shibli (2011, 268) interpret the 2006 summer conflict more starkly as a “war

against the landscape" (identifying also widespread IDF-related damage to villages, electrical supply lines and agricultural resources). Such "infrastructure warfare" (Graham 2007) is recognized as a core principle of Israeli military strategy, as honed in successive campaigns against Lebanese and Palestinian targets.[5]

Lebanese framing of Hasbani Basin waters as state nature is marred by the militarization of land and airspace across the borderlands with Israel, including the occupied Golan Heights. After the 2006 war, and in support of Lebanese sovereignty, United Nations Security Resolution 1701 (2006) expanded the mandate of UNIFIL to monitor a zone, between the Blue Line and the Litani River, free of all armed personnel. However, in the UNIFIL eastern sector covering the southern half of the Hasbani Basin, the ceasefire on the border has regularly been breached by exchanges of fire between Hizbullah and the IDF, with growing spillovers from the Syrian conflict. In January 2015, for example, in response to an Israeli airstrike on a Hizbullah convoy in the Syrian Golan—the fatalities from which included a senior Hizbullah commander and Iranian general—Hizbullah militants fired anti-tank rockets at an IDF convoy in the Shab'a Farms area killing two Israeli soldiers: the IDF responded by shelling Hizbullah positions along the border.[6] Both sides routinely violate the demilitarized zone in a vertical geopolitical confrontation, and dynamic balance of deterrence, that reflects their asymmetric capabilities in projecting force. Thus, Hizbullah exploits its subterranean mastery of the southern Hasbani region to maintain a "defensive" network of tunnels and bunkers, while the IDF almost daily violates Lebanese airspace by military jets and surveillance drones (United Nations Security Council 2014, 3).

This violent environment, veering erratically between low- and high-intensity conflict, is experienced by Hasbani Basin farmers for whom outside military interference (tadakhol) is a serious threat to lives and livelihoods. Aerial power over lives and livelihoods, as a display of sovereign force, produces multiple vectors of spatio-temporal control (Weizman 2007; Adey, Whitehead, and Williams 2013). In southern Lebanon an enduring, deadly impact of the 2006 war, pockmarking the land, is the substantial number of unexploded cluster bombs and landmines—a dangerous terrain which farmers navigate by shared assessments of accessibility and risk. The fluid sovereignty of the Hasbani catchment is intensified in proximity to the borderlands adjoining the Blue Line. Israel has consistently pressed for the exclusion from the Blue Line of the eastern bank of the Hasbani River, south of the divided village of Al-Ghajar (Figure 3), where it forms a short (3 km) border between Lebanon and the Israeli-occupied Shab'a Farms and Golan Heights (United Nations 2000). Israeli militarization of the otherwise uninhabited Shab'a Farms indicates the geostrategic value of this land at the crossroads of Lebanon, Israel and the Golan Heights. Claimed by Lebanon, but of indefinite territorial status since the French Mandate, its hydro-political significance for Israel derives from Shab'a Farms covering part of the recharge area of the Liddan Springs, principal source for the Liddan (Dan) tributary. At 241 MCM, the mean annual flow of the Liddan is approximately double that both of the Hasbani and Banias (the other two tributaries of the upper Jordan) feeding into Lake Tiberias, Israel's main freshwater reservoir (Zeitoun et al. 2012, 41). Thus, the territorialization of the Shab'a Farms as Israeli state nature facilitates fuller volumetric control over the water resources of the Dan River, whilst at the same time undermining Lebanese territorial claims to this area.

INSERT FIGURE 3 HERE

Fluid materiality and state nature

Insofar as the state natures of the Hasbani catchment reveal competing and discordant acts of territorialization for volumetric control over the river, the fluid materiality of the waters themselves becomes decisive, including their role in wider processes of hydrospheric circulation (Bear and Bull 2011; Bakker 2012; Lavau 2013; Steinberg and Peters 2015, 252-54, Swyngedouw 2015). As noted above, vital materialist approaches accord explanatory weight to the autonomous play of geophysical and biophysical forces. The notion that nonhuman entities exhibit a causal integrity of their own is evident both in actor network theoretical claims that there is a bilateral grouping or co-constitution of the human and more-than-human (Latour 2004; Bennett 2010) and also, more radically, the speculative realist thesis positing a spatio-temporal asymmetry of earth processes vis-à-vis human becoming—"that we might need to think of the entire zone of human-nonhuman interchange as itself nothing more than a concrete, localized and contingent region in the midst of an overwhelming inhuman expanse" (Clark 2011, 48-49). From the latter position, anthropogenic climate change finds a geological analogue, the mid-Pliocene (3.3 to 3 Ma), which is far outside the moral-practical compass of political sovereignty yet must somehow still be registered in terms of human choices (Clark 2010, 49). Sensitizing sovereignty to the deep temporality of geological terrain expresses Derrida's claim that political sovereignty has more than one ground, more than one solidity (2009, 34). The focus in this section is on the political effects of the

Hasbani Basin as a hydro-climatic assemblage, notably the volatility and unpredictability of “natural” water transfers to agriculture.

The Hasbani River has a surface catchment area of 698km^2 and the highest flow variability of the three Upper Jordan headwaters, ranging from 30-304 MCM a year. Its principal sources, the Hasbani and Wazzani springs, receive strong groundwater pulses from winter precipitation and snow-melt on the north-eastern mountain slopes of the basin (UN-ESCWA and BGR 2013, 181-82).[7] Peak monthly river flows in February and March are also boosted by three tributaries and their seasonal rivulets. From the elevated mostly karstic terrain of Jurassic dolomite limestone and dolostones in the east, the basin drains across calcareous slopes and a volcanic plateau towards the Marjeyoun plain in the south-west (largely composed of Pliocene basalts) where the Wazzani tributary joins the main river. This sketch of the terrain masks a complex hydrogeology for which the mapping and modeling of groundwater flows is problematic. In such karst environments, localized variations in the permeability of the terrain mean that rainfall events can trigger unpredictable groundwater discharges (Rimmer and Salingar 2006, 526; Zeitoun et al. 2012, 45). The material agency of the river itself is of course still more expansive and dynamic, continuously breaking down and remaking itself through multiple assemblages of inorganic and organic objects. Current “natural” flows are not substantially altered in quantity by direct human impacts, though there are significant qualitative changes as a result of untreated water discharges and runoff contamination from pesticides and chemical fertilizers (Badr, Holail, and Olama 2014).

The framing of the Hasbani catchment as stressed by human demands and climate change has informed claims both challenging and justifying the legitimacy of the Lebanese state. On the one hand, municipal and civil society representatives in the Hasbani Basin charge the national government—notably the Council of the South—with systematically neglecting their concerns about declining access to agricultural water. Since 2000 the lack of state investment in regional water infrastructure is attributed in large part to an institutional deficit in political authority.[8] On the other hand, the portrayal of the Hasbani Basin as "water-stressed" informs argument made by senior Lebanese government officials to justify national volumetric claims vis-à-vis Israel. Thus, Comair (2015) invokes integrated water management norms to argue, in the context of purported water deficiencies, that a more sustainable, equitable use of the "total water mass"[9] of the Jordan Basin justifies a "return" to Lebanon of the Shab'a Farms.

Lebanese representations of climate change feed a narrative of growing water scarcity—a water resource crisis compounded, the government claims, by the arrival, since 2011, of over a million Syrian refugees (Eid-Sabbagh 2015, 46-51: Republic of Lebanon 2015, 1-2). In its second national communication to the UN climate change convention, the Lebanese government anticipates significant reductions in the volume of total water resources as a result of decreased precipitation and greater drought frequency, with the effects most intense in those regions, like the south, economically reliant on climate-sensitive agricultural production (Ministry of Environment 2011, xiv-xv; Farajalla et al. 2014).[10] This economic dependence is marked in the Hasbani Basin, where 70 per cent of the regional population work in an agricultural sector dominated by small, family-run

landholdings (Charrouf 2012, 278-79). Furthermore, the politically insecure status of the region, hampering national reconstruction plans, has stalled the modernization of agriculture, rendering it more sensitive to climactic stresses. Almost all the rural households questioned in the 2013 field survey relied on rainfall for their agricultural water needs; and while olive production—the dominant rain-fed crop in the basin—is resilient in the face of high temperatures and summer droughts, farmers in the olive-growing Hasbaya District (Figure 4) already report yield reductions from lower winter precipitation over the past decade.[11]

INSERT FIGURE 4 HERE

The materiality of hydro-climatic flows corresponds, through an exchange of properties, with the human experience of fluid events and volumes. From the survey of farming households conducted in the Hasbani Basin, almost all respondents (97 per cent) perceived an increase in mean temperatures over the last 20 years, though perceptions of annual rainfall changes were equivocal. More than half the sampled rural households reported no significant changes in runoff or spring flow: a quarter observed a decrease in runoff and fewer still (22 per cent) a decline in spring flow. Of the reported experience of rising temperatures, 88 per cent of respondents attributed these to climate change rather than climate variability; that is, a warming trend outside “natural” fluctuations. This experience of warming is consistent with Lebanese meteorological data demonstrating an upward temperature trend since 1981 (Ministry of Environment 2011, 77). At the time of the survey, over three quarters of the respondents stated that the perceived rises in mean temperature had

not had a significant effect on their agricultural output, with only a minority reporting an output decline that was either moderate (12 per cent) or extreme (1 per cent).

Nevertheless, hydro-climatic changes are recognized as a major challenge to agricultural livelihood options. 88 per cent of the farmers surveyed in the Hasbani basin stated that climate change reduced water availability for agriculture, above all by higher crop water requirements due to rising temperatures. The multi-crop cultivation model followed by most farming households in the region has traditionally favored fruit crops—cherries, apples, grapevine—which are sensitive to high winter temperatures (Ministry of Environment 2011, 96-98). Yet across a predominantly Druze farming population, unforeseen climatic events tend to be received with equanimity: “everything is from God—what comes from nature we cope with”.[12] Highly germane in this respect is that Jebal El Sheikh (Mount Hermon), a source of the Hasbani River, has deep religious meaning for the Druze as the site of the transfiguration of Christ—one of their major prophets.

Affective conditions of fluid sovereignty

Fluid sovereignty, as a form of divisible sovereignty, suggests openness to how projections of state nature shape, and are received by, political subjects, although Derrida ignores the practical conditions of sovereignty encountered in everyday life. In their discussion of state-nature relations, Whitehead, Jones, and Jones (2007) similarly underplay the lived experience of those affected by national projects of centralization and territorialization. The (tacit) agreement or presumed consent of affected populations is a source of legitimacy for state framings of nature—a necessary part of what Ioris calls the “socio-ecological embeddedness of state

activity" (2015, 169). Disaffection with the material and/or ideological manifestations of state nature can disrupt this legitimacy: under conditions of fluid sovereignty, where state natures are fractured or otherwise incomplete, legitimation problems are more likely to flare up.

For farming households in the Hasbani Basin, the co-production of water scarcity by hydro-political and hydro-climatic flows is experienced as a threat to livelihoods within a context of state neglect of agriculture. Patron-client networks are instrumental in this neglect. As noted by Eid-Sabbagh (2015, 208-209), Lebanese food subsidies and other state support for agriculture strongly favor land and capital owning elites. Tobacco subsidies, the only noteworthy subsidy to poorer farmers in the south, were first introduced during the Israeli occupation to incentivize farmers to stay on the land, but expressly serve the Shi'a clientele of Hizbullah and Amal. The majority Druze population of the Hasbani Basin has periodically extracted patronage rents from the national government; for example, Druze control in the 1990s of a ministry (Ministry of the Displaced) that paid for modest upgrades of water infrastructure in the south (Eid-Sabbagh 2015, 75). Yet this intermittent influence has not offset the domestic political dynamics favoring more powerful parties and urban-oriented economic development priorities.

The survey of rural households across the Hasbani Basin revealed farmers sharing an affective condition of precariousness—a structure of feeling characterized as the lived experience of an unstable present and uncertain future (Anderson 2014, 130-131). Farming livelihoods, chosen amidst severely circumscribed economic options, are rendered precarious by deficits and uncertain prospects in the availability of

agricultural water, both as a perceived outcome of climate change and cross-border military exchanges. The economic susceptibility of farming households to agricultural water scarcity is heightened by the preponderance of small landowners and tenant farmers with minimal financial assets.[13]

To be sure, farmers adopt a number of practices to cope with shortfalls in the availability of agricultural water. These include rainwater harvesting, changes in crop selection, greenhouse cultivation and switching irrigation type (typically to drip irrigation). Awareness of climate change is borne out by Hasbani Basin survey data showing perceived increases in mean temperature as the most likely environmental determinant for triggering longer-term adaptive responses in farming, such as shifts from fruit crops to olive trees and pine nuts (the latter also encouraged by high prices following a government ban on pine nut imports). Yet while farmers have started to adapt to changing hydro-climatic conditions, national government assistance was seen as insufficient by half the survey respondents. Towards the border with Israel and the occupied Golan Heights, farming households charged a wholesale failure of the Lebanese state to address reductions in water availability mainly attributed to transboundary security risks; for example, the avoidance by farmers of agricultural well-drilling up to 15 km from this border on account of perceived risk from IDF incursions.

Indeed, the avoidance or abandonment of lands deemed unsafe was, for both survey respondents and focus group participants, the primary means of defensive coping in the face of differential water availability across a risky landscape. Different spatio-temporal configurations of (para)military violence—including the proximity of mines,

cluster munitions, and the fire-range of IDF border positions—are grasped through lived experience, generating a practical geography of precarious terrain; for example, the gradation of dangerous lands according to whether mine clearance did not take place (ard khatera), or still in doubt that clearance was completed (ard mushakkaka), or uncertain whether it was done at all (ard mumken mullaghama). Not surprisingly, physical damage to farming assets from outside military interference (tadakhol) significantly reduces the propensity of farmers to adopt coping practices that signal a long-term commitment to the land (e.g. greenhouse cultivation, irrigation). Economic losses resulting from responses to IDF cross-border actions (e.g. land abandonment or neglect from fear of bodily harm) also hinder the adoption of coping practices, though to a lesser extent than direct damage to agricultural assets. An improved security situation, facilitated by an effective protective presence of the Lebanese government, was viewed by farmers as an essential precondition for large-scale adaptive measures to climate-induced water stress, notably agricultural land reclamation and investment in irrigation infrastructure.

The persistence of precariousness as an affective condition amongst the farming communities is registered through, and shapes, their place-based attachments. When asked directly in the Hasbani focus group why they remained on the land, participants stressed its identity-bestowing properties, encompassing ethno-religious, national and even pan-Arab affiliations. There is no simple relationship between the risk of violence and these telluric identities. While Israeli military actions encroaching on Hasbani rural livelihoods are, through the reproduction of a collective resistance identity, reported to intensify cultural valuation of “our” land and water, the cross-border threat from Syria posed by Islamist militants has divided the Druze community

in the Hasbani Basin. Clashes at the end of 2014 between Jabhat al-Nusra and pro-Assad Druze fighters on the eastern (Syrian) flank of Jebal El Sheikh created tensions amongst Druze political leaders in Lebanon—between calls to maintain neutrality (Walid Jumblatt, Druze Progressive Socialist Party) and calls to fight alongside Hizbullah against Jabhat al-Nusra (Talal Arslan, Lebanese Democratic Party). The reported self-arming of some Druze residents of Rachaya and Hasbaya, whether for self-defense or for planned military assistance to Syrian Druze (Al-Akhbar 2014), attests to a regional population unconvinced that the lightly equipped Lebanese army can effectively protect local communities from external threats of (para)military violence.

The lived experience of precariousness by farming communities is a salient affective response to fluid sovereignty in the Hasbani Basin. It expresses a mingling of shared sentiment with unruly material circulations, recalling the vital materialist notion that human experience "includes encounters with an out-side that is active, forceful, and (quasi)independent" (Bennett 2010, 17). For those farming Hasbani lands, safe and reliable access to water is unsettled by hydro-political and hydro-climatic flows, including transboundary projections and counter-projections of (geo)power involving rival sovereigns (Israel and Lebanon) and a paramilitary actor (Hizbullah). Staying on the land, using water more efficiently, selecting drought-resistant crops—all are activities mixing more-than-human materials to produce agrarian natures in the face of high consequence risks. Participants regard these as autonomous responses in the wake of the unsuccessful consolidation of Lebanese state nature across the Hasbani catchment. The inability of the state to secure control over Hasbani flows, which reflects dysfunctional policy-making (e.g. organizational failings over water

infrastructure and patron-client favoritism) and regional security weaknesses (partial command of Lebanese territory and airspace), significantly accounts for the low legitimacy of the national government in the eyes of Hasbani farming communities.

Conclusion

In this article we introduce the concept of fluid sovereignty to denote configurations of state authority in which flows of living and non-living things, within and across national borders, render insecure claims to unconditional territorial rule. Loss of monopoly control of the means of violence within a territory conventionally signals weak state sovereignty, as evident in scholarly and policy discourse on "fragile" states, including Lebanon. However, the figure of fluid sovereignty brings to the fore state-nature relations neglected in this discourse, opening up a world of political authority in which more-than-human materials enter into, are enrolled by, and overflow mechanisms of territorial governance. Philosophical grounding here is provided by Derrida's (2009; 2011) critique of anthropocentric logics of political sovereignty, while the conceptualization by Whitehead, Jones, and Jones (2007) of state framings of nature—realized through processes of centralization and territorialization—allows historic-geographical analysis of particular material and symbolic manifestations of state nature. We employ this approach to examine fluid sovereignty in the Hasbani Basin, southern Lebanon as a form of unconsolidated state nature, supplemented by recent insights from critical political geography on territorialization as a political technology for securing volumetric control over valued flows (Elden 2013; Grundy-Warr, Sithirith, and Li 2015; Stenberg and Peters 2015). Fluid sovereignty makes conceptual room for state-nature relations in which flows of living and non-living things unsettle or destabilize territorial rule-making.

The incomplete territorialization by Lebanon of the Hasbani catchment evinces fractured state nature—the inability of the state to achieve volumetric control of basin waters. Lebanese shortfalls in water governance arise domestically from institutional deficits (e.g. the absence of authoritative information on hydrological flows and abstractions) and policy neglect of water infrastructure in the south under prevailing patron-clientistic structures of power. These challenges are compounded by the break on greater Lebanese uptake of Hasbani flows imposed by a stronger neighboring sovereign: Israeli volumetric authority, underscored by a willingness to use force in Lebanon to defend hydraulic interests, is legally justified according to downstream entitlements of established prior use. At the same time, Hizbullah's military action across the Blue Line against Israel, internally justified as "defensive jihād" against an occupying entity (Dionigi 2014, 106), notably in Al-Ghajar and Shab'a Farms, disrupts rulings by the international community (e.g. UN Security Council Resolution 1701 (2006)) that monopoly control of the means of violence over Lebanese territory resides in the Lebanese state—as displayed, for example, by the stationing of Lebanese Armed Forces at the Wazzani Pumping Station. The circulation within and across the Hasbani Basin of multiple means of violence is partly constitutive of its fluid sovereignty.

However, the unconsolidated state nature of the Hasbani Basin is co-produced by the fluid materiality of the waters themselves, whose unruly hydro-climatic flows are at odds with territorial moves to exercise volumetric control. Already prone to high seasonal and inter-annual fluctuations on account of a complex hydrogeology, the Hasbani River flow regime is arguably undergoing a step change to an uncharted

range of variability induced by regional climate change. Farming communities in the Hasbani Basin dependent on access to rain-fed agricultural water perceive an increase in mean temperatures over the last two decades (consistent with Lebanese meteorological data), reporting higher crop water requirements as a consequence. The materiality of changing hydro-climatic flows corresponds with local experiences of local water- and weather worlds; and despite various coping practices employed by Hasbani farming households, recent regional warming accentuates conflict-related water stresses on farming livelihoods, generating an affective condition of precariousness. This shared experience of precariousness by farming communities is a both a salient response to fluid sovereignty and symbolically contributes to its reproduction through the withdrawal of legitimacy from a Lebanese government viewed as failing to protect local communities from transboundary water-related threats.

It is important, finally, to avoid equating fluid sovereignty with unconsolidated state nature. Whitehead, Jones, and Jones caution against the suggestion that "nature is ever successfully or unproblematically framed by the state" (2007, 15; see also Swyngedouw 2015, 223-225). On a philosophical level, this claim expresses an ontological stance, affirmed in this article, that state-nature relations are always in a process of becoming, in which their constituent parts are inter-related and co-evolving. So also fluid sovereignty invites understandings that critically question the notion that state sovereignty is instituted solely by human agency. Furthermore, analytical attention to the role that flows of living and non-living things—watery flows in this article—play in enabling or disabling the spatial spread on state nature, adds a vital environmental lens to empirical assessments of weak statehood. Following

these flows, within and across national borders, as they express, escape or erode projections of sovereign power may lead to deeper accounts of the becomings of state nature.

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(5) Notes

1. The Blue Line is a boundary marked out to determine accordance with United Nations Security Resolution 425 (1978), which called for Israel to cease its military action against Lebanese territorial integrity and to withdraw its force from all Lebanese territory. Full implementation of resolution 425 was recognised by the Security Council in June 2000 (United Nations Security Council 2000), but Lebanon regards Shab'a Farms, part of Al-Ghajar village and Kafar Shouba Hills as Lebanese territory still occupied by Israel.

2. The rural questionnaire survey was conducted between January and April 2013, sampling agricultural communities across the three administrative districts of the Hasbani region—Rachaya (north), 66 responses; Hasbaya (mid-region), 103 responses; and Marjeyoun (south), 127 responses. Arabic (administered) and English versions of the questionnaire, along with questionnaire data, are available from the authors. The focus group, held on 27 September 2013 in the Snoubra Hotel, Hasbaya, was attended by 23 participants, including farmers, local government representatives and rural cooperative organizers. Follow-up interviews were conducted in June 2014.

3. Personal communication: Lebanese civil society representative, Beirut 9 June 2014. The challenge of corruption in the Lebanese water sector is addressed by Farajalla et al. (2015).

4. Interview: Lebanese NGO director, Hasbaya, 10 June 2014.

5. In 2008 this was labeled the "Dahiya doctrine" by IDF general Gadi Eizenkot after the IDF-directed destruction of the Dahiya area of Beirut during the 2006 war: Y. Katz. 2010. 'The Dahiya Doctrine: Fighting dirty or a knock-out punch?' The

Jerusalem Post 28 January: http://www.jpost.com/Features/Front-Lines/The-Dahiya-Doctrine-Fighting-dirty-or-a-knock-out-punch (last accessed 4 April 2016).

6. A Spanish UN peacekeeper deployed near Al-Ghajar was killed during this clash: See: http://www.un.org/apps/news/story.asp?NewsID=49929#.VSZrPF9wbGg (last accessed 4 April 2016).

7. While these broad parameters are widely accepted, it should be noted that the hydrological description of the Hasbani catchment (and Jordan River) in the UN-ESCWA and BGR (2013) report has been challenged: see Messerschmid and Selby (2015).

8. Focus group, Hasbaya, 27 September 2013.

9. “Total water mass”, estimated by Comair (2015) at 4 billion MCM/year, combines conventional (Jordan River Basin discharge) and non-conventional water sources (imports of water, treated wastewater, desalination and sea water springs): see Comair (2015).

10. Climate change is forecast to reduce the total volume of water resources in Lebanon by 6-8% for a 1^0C increase in average annual temperature and by 12-16% for an increase of 2^0C (Ministry of Environment 2011, 114). This must be set against the government estimate that the arrival in Lebanon of 1.13 million Syrian refugees had, by the end of 2014, already increased national water demand by 12% (Republic of Lebanon 2015, 2).

11. Interviews with farmers, Hasbaya District, June 2014: the high level of rainfed agriculture accords with Charrouf’s (2012, 272) estimate of 95% rainfed agriculture in the region.

12. Field interview, famer, Hasbaya District, 10 June 2014 (translation from Arabic).

13. Most of the survey respondents were the landowner (91%) or co-owner (5%) with the remainder identifying themselves as tenant farmers or co-tenants. Farms tend to be long-established, family-run enterprises with, compared to urban centers, an ageing demographic: on average household sizes in the survey were five family members, 30 years of combined farming experience and only one additional individual working on the land. Rural landholdings tend to be small: 57% from 1-4 dunums and 37% from 6-15 dunums (one Lebanese dunum is 1000 square meters).

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(7) Figure captions

Figure 1: The Hasbani Basin, Lebanon (adapted from Zeitoun et al. 2013, 296)

Figure 2: Wazzani pumping station (photo: Michael Mason)

Figure 3: Al-Ghajar village adjoining Hasbani River, with Shab'a Farms in background (photo: Michael Mason)

Figure 4: Spring water extraction at olive grove in Hasbaya District, upper Hasbani (photo: Michael Mason)

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