Post-fossil Nomoi of Energy

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"*The Greek word for the first measure of all subsequent measures, for the first land-appropriation understood as the first partition and classification of space, for the primeval division and distribution, is* nomos."
C. Schmitt, *The Nomos of the Earth* (1950: 67)

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Introduction

At least since the first *United Nations Conference on the Human Environment* held in Stockholm in 1972, most international organizations and governments have designed environmental policies and regulations within the still disputed framework of "sustainable development". The general goal has been that of understanding and practically solving pressing environmental issues that, although mostly caused by specific socio-economic and political actors, have been affecting people, animals, plants and entire ecosystems across boundaries. Despite some modest progress, problems such as global climate change, biodiversity and habitat loss or the different forms of pollution are still alarming and, in many cases, worsening at a rapid pace. In this essay, I suggest the need to step back and examine the situation through a philosophical reflection. This will try to respond to the urgency of the situation by considering it in two steps. First, through the recognition of the spatial socio-political orders within which many of these environmental problems have arisen. Second, by envisioning a post-fossil future based on an alternative *nomos*, a socio-political spatial order, that responds to ecological boundaries and limits rather than being dependent on the traditional notion of national sovereignty.

An almost trivial starting point for this inquiry is recognizing that energy and environmental issues are closely interwoven. As former United Nations Secretary-General Ban Ki-moon indicated in his preface to the *Sustainable Energy for All* report of 2012, "energy is a golden thread that connects economic growth, increased social equity, and an environment that allows the world to thrive". Given the large amount of pollution connected to energy related activities, it is important to consider not only the ways in which energy resources are located, appropriated and distributed but also how power is extracted, generated, consumed and resources wasted

and disposed in the different stages of the process. Today, after more than three decades of researches and debates about the energy transition from fossil fuels to renewable and cleaner energy sources, there is a robust energy discourse with its specific theoretical and policy approaches, jargon and politics. The downside of such specialization is that the fundamental link between energy and environmental issues can become feeble or even hidden. For this reason, we need to constantly remember that regardless of whether it is fossil or not, all energy sources and materials used by humans come from the natural environment and are returned to it as dissipated heat and unusable, depleted materials. Fortunately, the awareness that energy concerns are inseparable from environmental ones is increasingly shared also among legal scholars who, for instance, have addressed energy and environmental issues as global, inter-dependent affairs (Lyster and Bradbrook 2006; Park 2013).

One quite recent attempt of comprehensively tackling these interwoven issues was the establishment of the seventeen Sustainable Development Goals (SDGs) as part of the 2030 *Agenda for Sustainable Development*, adopted by all United Nations Member States in 2015. This was conceived as an urgent call for action and a strategy based on the idea of a global partnership among countries. On the topic of energy, for instance, SDG 7 aims to "ensure access to affordable, reliable, sustainable and modern energy for all". From this definition, we see again that the notion of "affordable and clean energy" is based on a problematic tripartite distinction between the environment, human beings and technology (Hillerbrand 2018). It goes without saying that achieving such a global and just energy transition (Heffron and McCauley 2018) is a huge challenge. Besides socio-technical conundrums related to changing behaviors, policies and technologies (Büscher *et al.* 2019), there are also legal obstacles facing the implementation of energy transitions generally (Heffron *et al.* 2018) and of SDG 7 particularly (Bruce and Stephenson 2016). In this sense, a key shortcoming seems to be the absence of international environmental and energy regulations that are comprehensive, systematic, transboundary and especially binding for all countries involved. For example, in their policy brief entitled "SDG 7 on Sustainable Energy for All: Contributions of International Law, Policy and Governance" (2016), Bruce and Stephenson point out that a key legal obstacle is that the

> *"implementation of SDG 7 necessitates a practical operationalization of the principle of common but differentiated responsibilities as reflected, among others, in Article 3 of the UNFCCC. This tension has affected climate negotiations, and the ailing WTO Doha round. As SDG 7 requires action from both developed and developing countries, it is commonly understood that achievement of the various targets and indicators will necessitate some degree of so-called "burden sharing"; that is, a "fair" allocation of responsibilities among all States taking into consideration their individual historic responsibilities."* (9)

Hence, it is difficult to negotiate and implement an international energy law that requires individual states to cooperate

toward a common management of resources for the benefit of all people. Moreover, considering that none of the most relevant global treaties on sustainable energy access and development – the Statute of the International Renewable Energy Agency (IRENA), the United Nations Framework Convention on Climate Change (UNFCCC), its Kyoto Protocol, and the Paris Agreement, the United Nations Convention on the Law of the Sea (UNCLOS), and the agreements of the World Trade Organization (WTO) – provide a shared plan to practically redistribute access to energy among states and communities.

The palpable tension then is between the political willingness to share something that is conceivably common (i.e. energy resources potentially recognized as "owned" by peoples across frontiers) and national interest, or the fact that in the current geopolitical scheme these resources belong to specific national sovereign states. In the end, the assumption is that each energy transition is a domestic affair that becomes an international matter only insofar as tariffs, resources exchanges and investments take place within the international market. To challenge this approach, in the following pages I will sketch some traits of a socio-political spatial order that supports an effective global governance through an international environmental and energy law.

Defining the Problems

To begin, let us consider whether the current and pressing environmental (and energy) issues have something in common. It seems indeed possible to identify at least four basic characteristics. First, most of these problems are *anthropogenic*, that is caused by (some) humans. Second, they are *alarming* and even disquieting because they pose existential threats to both human and nonhuman lives. Worldwide many environments are increasingly threatened by human pressure to the point of irreversible species extinction and ecological collapse. Third, they are *transboundary*, namely they affect populations of animals (humans included) and communities of plants across both geographical and temporal scales, regardless of political frontiers. Fourth, most issues derive from an assumption of limitlessness. In other words, they are the effects of actions that (intentionally or not) challenged, opposed or rejected eco-physical limits, boundaries and thresholds which are affecting the "working" of the natural world in dramatic ways. Again, these issues are affecting both human and non-human beings and entities.[1] So, if these problems are anthropogenic, alarming, transboundary and essentially dependent on disrespecting limits, how are we to successfully deal with them?

As anticipated above, currently the privileged approach is to tackle them

[1] In this sense, one of such well-known boundaries depends on a key implication of the Second Law of Thermodynamics, namely the notion that there is a limited amount of usable work that can be extracted from already scarce resources. Another basic boundary derives from the limited capacity of the biosphere to absorb the wasted materials and gases produced by human activities. In short, environmental problems tend to arise when we do not take into account that there are eco-physical limits to a continuous human growth and expansion on the planet, at least according to the current patterns of development and rates of consumption of the wealthier part of the world.

through bilateral or international agreements in which each country promises to adopt internal policies to implement shared targets, such as the SDGs or the reduction of greenhouse gases emissions. From a geopolitical standpoint, this approach is premised on the preservation of national sovereignty and traditional diplomacy, which operates through the tools of international relations often in favor and under the auspices of national interest.[2] I contend that this approach is outdated and inappropriate because it is in direct conflict with at least three of the four characteristics discussed above. Given how alarming the issues are, this approach is too phlegmatic. Given the transboundary nature of most issues, it is too narrowly focused and protectionist of national interests. Given the dependency on limits and boundaries, it is based on a notion of sustainability that is too weak. Therefore, continuing to follow this approach – as the 2019 COP25 in Madrid has shown – may hinder any progress in addressing such alarming environmental issues. Overall, the situation sketched so far begs some questions: is it possible to advance a global and just energy transition following the current path? What if energy resources were managed by an international institution instead of nation-states, private businesses and corporations?[3] Is it possible to implement an international energy and environmental law to regulate the allocation, extraction and fair distribution of resources?

In order to start answering these questions, let us now consider two notions that can be helpful to start re-thinking the geo-socio-political spatial order: that of "limit" (from Latin *limes*, "boundary, frontier, threshold") and that of "nomos" (from Greek *nómos*, "law, order, custom, usage, managing")[4]. To understand how nomos and limits are at the core of the issue, in the next section I will consider the controversial contribution of German intellectual Carl Schmitt (1888-1985) and specifically his notion of "nomos of the land".[5] The choice of dealing with Schmitt's controversial proposal depends also on a desire to respond to a recent revival of interest in his work, an occurrence that requires to be scrutinized to avoid serious misunderstandings.[6] The task is not

[2] Of course, the objection can be that there are already many bi-lateral agreements between countries regarding environmental protection and energy developments. However, they are often realized for the sole benefit of the countries involved without the consideration of the common good of humankind and the biosphere.

[3] For example, legal scholar Stuart Bruce has recently called for a transnational approach global energy governance through international institutions (Bruce 2019).

[4] In Ancient Greek, there was a subtle difference between the broader notion of *nómos* (νὸμος), the allotment of what one has used, use, origin and what has become legal, and thus (by extension) law, custom, regulation, and the more specific term *nomós* (νομὸς), pasture for cattle, herbage, habitation, dwelling-place, province. I owe this specification of meanings to Prof. Mathias Gutmann, Institute for Philosophy, KIT.

[5] The main work in which Schmitt provides an exhaustive discussion of the relationship between nomos and spatial order is *The Nomos of the Earth in the International Law of the Jus Publicum Europaeum*, started in the early 1940s but published in 1950 (and available in English only since 2003). Even before publishing *The Nomos of the Earth*, Schmitt delved into the relationship between political order, sovereignty and boundaries in his *Land and Sea* (1942). There, he described the historical and geopolitical difference between terrestrial and marine spaces. For him, a spatial order – nomos – belongs to a definite territory while the absence of it – a-nomos – to the sea.

[6] It is of course plausible that the troublesome history of Schmitt's engagement with the National Socialists and his disturbing anti-Semitism may hinder some to investigate his work (see the *Introduction* of

without dangers, but I suggest that some of Schmitt's insights, opportunely criticized, amended and updated can be helpful to envision an international governance of energy and environment.

Revisiting Schmitt's Nomos of the Earth from the Perspective of Ecological and Socio-political Limitations

In *The Nomos of the Earth in the International Law of the Jus Publicum Europaeum* (1950), Schmitt illustrates two themes which are relevant for the present discussion: the tripartite nature of the nomos and the prescription that any philosophical or socio-political inquiry must start from concrete socio-political situations. Since these themes run as interwoven red threads throughout the book, I will briefly present both in the context of Schmitt's theoretical proposal. Then, I will explain how they can be opportunely "subverted" to fit the task of reimagining the socio-political spatial order in transboundary and ecological terms.

Nomos as Appropriation, Distribution and Conversion

Schmitt famously defines the "nomos of the land" in terms of *appropriation*, *distribution* and *production*. According to him, these are basic aspects of the nomos, essential categories for any socio-political inquiry. Hence, any political theory should begin by asking fundamental questions regarding this triad: "*Prior to every legal, economic, and social order, there is this simple question: Where and how was it appropriated? Where and how was it divided? Where and how was it produced?*" (327-328, italics in the original). Notice that, significantly, appropriation must precede the other two stages:

> *"All known and famous appropriations in history, all great conquests – wars and occupations, colonizations, migrations, and discoveries – have evidenced the fundamental precedence of appropriation before distribution and production [because] land-appropriation is always the ultimate legal title for all further division and distribution, thus for all further production."* (328-329)

It is through the primordial act of appropriation that the concept of nomos becomes foundational: "land-appropriation is a presupposition of land-division, which determines the broader stable order" (341). It is interesting to note that Schmitt's broader understanding "developed after the war to embrace both a geo-elemental spatial ontology and an account of the rise and fall of Eurocentric global order" (Minca and Rowan 2015). Overall, his definition reflects both the etymological history of the term and its spatial and political underpinnings:

Legg 2011). Nevertheless, his biographical record should not represent an obstacle for considering his theoretical proposal with a critical eye. As advised by Piccone and Ulmen, "Schmitt should be read carefully but, as Benjamin showed, against the grain, since the profundity of his thought is matched only by the intensity of his conservatism" (1987: 3-4).

> *"Nomos comes from nemein - a [Greek] word that means both "to divide" and "to pasture." Thus, nomos is the immediate form in which the political and social order of a people becomes spatially visible – the initial measure and division of pastureland, i.e., the land-appropriation as well as the concrete order contained in it and following from it."* (Schmitt 1950: 70)

So, how can Schmitt's concept of nomos of the land benefit our reflection? Given the above considerations and the fact that modern high-energy civilizations are continuously overshooting their environments, the nomos of the land needs to be revised to become compatible with the transboundary reality of most environmental issues. In part, his insight that the nomos of the land is made of a triadic movement remains relevant because it is indeed mirrored, for example, in most energy projects: some parts of land or sea are appropriated (either bought, leased or given authorization) in order to allow energy exploitation to take place. But while the nomos of land theorized by Schmitt depends on geopolitical boundaries typically based on the existence of some cultural and linguistic predominance, the post-fossil nomos proposed here depends instead on bio-chemical and ecological, geo-physical boundaries.

In the case of fossil fuels, for example, we should bear in mind the fact that the amount of usable energy is materially limited and spatially unequally distributed. This should prompt us to think about the socio-political order in transboundary terms. In lieu of a company-based or country-based system of exploitation of such resources, a post-fossil nomos suggests the establishment of an international organization that, *super partes*, manages the reasonable harvesting and the fair distribution of resources and energy derived from fossil fuels independently of geopolitical frontiers. Therefore, a key implication of the just transition would be the reduction in the availability of fossil energy for high-energy countries and a parallel increase for others toward a more balanced and thus less unjust situation. Of course, for Schmitt this kind of managerial transnational authority would constitute the "end of politics" because it exercises power based on people's needs through economic rationality and liberal social ethic. And yet, this international law would only constitute a limited interference with national affairs because it would solely concern environmental and energy management. Another weakness follows from the recognition that this type of regulation has proven to be difficult due to the immense influence and power that the energy sector and its lobbies wield. Yet, the rapid evolution and spread of renewable energy socio-technical systems will eventually take over the current necessity to continue using fossil fuels, increasing distributive justice and more democratic control over energy production.

Concerning renewable energy developments, we already know that not all countries present favorable conditions for their implementation. Hence, the new post-fossil nomos would suggest a similar process of appropriation and exploitation for the benefit of all stakeholders. In either case, the electric grid will have to become a robust and smart transnational infrastructure capable of managing and

transferring power across existing national frontiers and along the longitudinal axis due to the "intermittent" nature of winds, sun and tides. In a post-fossil world, the appropriation and distribution of energy-related resources as well as power generation should follow principles of equality of opportunity and energy justice (McCauley *et al.* 2013; Jenkins *et al.* 2017; Healy *et al.* 2019) opportunely regulated by an international environmental and energy law. In practice, countries that present favorable conditions regarding mineral deposits, solar radiation and weather patterns would exchange these benefits with those that are in need. The same would happen in the case of technologies and know-how. Initially, the overarching goal would be that of energy sufficiency for all, and then of more equality in energy access and use across nations. With the progressive exit from a fossil regime and the emergence of a distributed, pluralistic smart grid made of many energy producers, new and more democratic spatial orders become possible.

Concrete Situations

The second important theme concerns Schmitt's political realism. In *The Nomos of the Earth*, he stresses that any sovereign decision must move from concrete situations in which the actual stakeholders, their representatives or their rulers determine who is in and who is out of the boundaries. According to Legg, Schmitt's idea of "politics, like the sovereign decision, is situational: only participants can judge a conflict and decide on the friend–enemy distinction" (Legg 2011: 8). Thus, we understand not only that there can be more than one nomos for each context, but also that its establishment requires the definition of a friend-enemy distinction. It is important to notice that such separation depends on an act of definition of both what is outside and inside the border. On the one hand, looking outside means identifying who is not part of a shared nomos. As Zarmanian puts it, "In order to exist, any political unit, defined through a friend–enemy opposition, must therefore de-fine itself, must exclude those who cannot be included in the political unit in order to ensure the safety of its members" (2006: 55). On the other hand, looking inward is also an act of demarcation. The boundary line, fence, or wall, takes on for Schmitt an unequivocally positive and spatially visible relation to that which is enclosed, and hence, to the law:

> *"[…] the solid ground of the earth is delineated by fences, enclosures, boundaries, walls, houses, and other constructs. Then, the orders and orientations of human social life become apparent. Then, obviously, families, clans, tribes, estates, forms of ownership and human proximity, also forms of power and domination, become visible."* (Schmitt 1950: 42)

Schmitt's idea that the nomos of the land starts from grounded, situated and specific context is an insight that seems compatible with the idea of a post-fossil nomos. But what does this imply in the context of the energy transition and worrisome transboundary environmental issues? On this regard, there seem to be at least two possible outcomes.

First, we could agree with Schmitt and search for emerging friend-enemy distinctions, maintaining the idea that boundaries are essential to the task. In this case, we may conclude that, for instance, countries experiencing energy poverty and resources scarcity are somehow entitled to argue that the richer ones constitute their "enemies", a claim that may be justified by centuries of (neo)colonialism and the negative effects of unequal resources distribution. Alternatively, we could abandon the friend-enemy distinction altogether in light of our paradoxical situation. On this regard, Legg emphasizes that, according to Schmitt's binary distinction between friend and enemy, "the enemy had to pose an existential and public threat to a way of life in a manner that was not predictable, and thus still demanded a sovereign decision on the nature of the enemy" (2011: 7). But none of the conditions apply here. The dangerous situation we are facing was and is predictable. Moreover, the paradox consists in the fact that the human species could be regarded as the actual "enemy", a claim that would make Schmitt's antagonism impossible because self-contradictory. Therefore, Schmitt's insistence that "decisions could only be made in concrete situations" by the sovereign (Legg 2011: 12) clashes with the current inability of national governments to take effective climate measures. There seem to be two options left: either "sovereign decision" will be taken amidst escalating crisis-situation, or an international energy governance will replace states' authority on environmental and energy matters.

But how can we change the deeply rooted antagonism against limitations and competition among nations? How can boundaries and finitude be regarded as hints to learn from and adapt to, rather than a nuisance to overcome? If we subvert Schmitt's theoretical proposal according to the changes mentioned above, the radical outcome is that the appropriate regulatory framework of such a transboundary, planetary socio-political system would be an international environmental and energy law that is built, shared and implemented across existing frontiers. Of course, there are already examples of such theorizing (Sands *et al.* 2012; Talus 2014; Leal-Arcas and Wouters 2017) and international organization such as the United Nations have been providing recommendations, regulations and guidelines for decades. However, what is argued here goes beyond current theoretical proposals, good intentions or signatures on international agreements. Instead, a *jus oecologicum planetarium*, to paraphrase Schmitt's subtitle, would be the transboundary environmental law grounded on ecological thinking, namely the basis of a post-fossil geopolitical order. A binding international legal order based on ecological understanding would be the most radical, yet appropriate outcome of a post-fossil nomos. In the end, the current situation calls for the establishment of a comprehensive, systematic international law concerning environmental and energy management, one that should replace, in these specific matters, the control and exercise of power by a state over a national polity.

Envisioning Post-fossil Nomoi: Toward a *Jus Oecologicum Planetarium*

In this section, I discuss some of the geopolitical consequences that would follow from the recognition of ecological and geo-physical limitations. This would be the single most important transformation that will allow the implementation of a new eco-socio-political spatial order. The new nomos would be based on the awareness of material finitude and ecological limits (e.g. to economic growth, exploitation of natural resources) rather than being solely defined by previous conflicts or geopolitical interests. But why is implementing an international environmental and energy law a necessary step?

First, it would account for the transboundary nature of most environmental issues and respond to ecological boundaries and thresholds. Indeed, it has been claimed that socio-political boundaries are an inevitable part of a human-dominated world and may conflict with conservation because national frontiers are rarely coincident with ecological boundaries (Dallimer and Strange 2014) and may hinder conservation efforts (Hundloe 1998). Then, because government policies at the national level tend to focus on environmental problems within their borders, there is a great difference in expenditure between rich and poor countries that, in turn, means that environmental quality across nations is lower than it could be if the work was also carried out more holistically (Morriss and Meiners 2009).

Second, although the contemporary energy market is global in scope, the legal framework that regulates it is far from being planetary. For more than twenty years, legal scholars have started developing a notion of energy law (Heffron 2015; Heffron *et al.* 2018) and some countries have created similar intranational regulation (e.g. China's 2005 Renewable Energy Law). But the reality of an international legal system (Bruce 2015; Wawryk 2014) or a "global energy governance" (Florini and Sovacool 2009; Karlsson-Vinkhuyzen 2010; Bruce 2019) is still in the making and, for now, seems still far-fetched.[7] An international environmental and energy law need to be considered in a broader ecological sense and not in a mere ethnic or geopolitical one. We already know that the belief in boundlessness will determine growing geopolitical tensions, possibly leading to diplomatic conflicts and even warfare. The new model should transcend geopolitical boundaries and instead embrace the geographical spaces that are ecologically interdependent. This means that the ecological post-fossil order would correspond to "spheres of influence" such as watersheds or eco-regions. In this sense, bioregionalism could be understood as local (as suggested by the example of watersheds) or transnational in the sense that the governance of climate/energy issues could be organized in regional

[7] It is also fair to notice that other scholars remain skeptical about the need for an actual reshaping of the geopolitical order. For instance, Bruce argues that "permanent sovereignty over natural resources and energy security policy are false barriers to action" (Bruce 2013). Rather, he suggests that the real obstacles are represented by a lack of "meaningful binding instruments and obligations" for which he proposes four legal options to significantly reduce greenhouse gas emissions and advance the implementation of the Sustainable Energy for All initiative (SE4ALL).

manner (like among the Nordic countries, Mediterranean ones etc.) depending on the issues, which could be constitutive for different nomoi in various context. In this sense, we should more appropriately talk about a pluralistic nomos, or nomoi. But the most radical consequence of ecological thinking would suggest deeming the entire earth as a common space. Therefore, a political theory grounded in ecological thinking (Eckersley 1992) would also support the design and implementation of political organizations responsible toward the non-human world and respectful of the limits of the ecosystems comprised in each ecological sphere of influence. At the same time, this does not mean the absolute dissolution of all boundaries. In fact, it would still be possible to maintain frontiers between different nations of people especially for the sake of bureaucratic path-dependencies as well as for cultural and linguistic preservation.

But what would the path to such a socio-political future look like? Luckily, we do not have to search very far. There are already several socio-political movements that are proposing the type of radical agenda that a truly ecologically oriented world order implies. For example, the recently established international movement called Extinction Rebellion uses non-violent civil disobedience and nonviolent resistance to halt climate breakdown, mass extinction and biodiversity loss, namely the risk of social and ecological collapse. In doing so, it advocates "mass 'above the ground' civil disobedience – in full public view. This means economic disruption to shake the current political system and civil disruption to raise awareness".[8] This and other grassroot initiatives show that new political actors must emerge to exert political pressure and perhaps even for changing the actor structure and redefining the spaces of political order. Therefore, it is important to identify the institutional actors (de Jong and Wouters 2014) as well as the non-institutional ones in order to account for recognition and procedural justice also in the elaboration of an inclusive international energy and environmental law.

Currently living people need to re-imagine their philosophy of limits and there is a fundamental political dimension to this endeavor. People with power (of any kind) should be keenly aware of the incumbent threats and be willing to put forth policies that address them and, meantime, effectively redistribute wealth without excessively compromising the livelihoods or the sense of justice of their communities and nations. Political theorists might find in these philosophical reflections a viable conceptual tool to think about a *jus oecologicum planetarium* as the basis for an eco-socio-political order, that is not a utopia. With a growing human population demanding more and more resources and energy, and the capacity of the planet to provide compromised by the ecocide, tensions are going to increase. The nomos arranged with respect to finitude of the

[8] https://rebellion.earth/the-truth/about-us/

earth and the planetary limits is crucial for preventing the socio-ecological collapse and the parallel death of countless individuals. In the end, the question will be: at which cost are we willing to continue the pillage? Although the switch of mentality proposed in this essay may appear radical or still be incomprehensible to some, many people worldwide are becoming aware of the threats and are increasingly willing to act.

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