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The Shattered Realm: Reshaping Law and Lawyers in the Anthropocene

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Abstract. The constitutional tradition is based in normality, which allows to think in a general social ordination through a constitutional document. Against the backdrop of the global environmental crisis, which has been described as a transition to a new geological era, as the Anthropocene; scholars and policy-makers are bound to cope with the new situation through the creation of some kind of new constitutional order as an ecological constitution indeed. But, the global transformation produced by the growing entanglement between society and biosphere is generating such a complex scenario that the pretension of order seems out of place. This paper tries to draw some insights from taking this new complexity and uncertainty that it creates seriously. The proposal is to see (constitutional) law rather as an event than an order, in the assumption of a permanent state of exception.

Keywords: Order, exception, constitution, environmental law, anthropocene

1. Introduction: State of Exception

The hegemonic understanding of law is based in regularity. Therefore, when legal thought is confronted to the global ecological crisis flows on known imaginaries of regulations and constitutions.[2] However, the process of planetary change has so deep implications and consequences that has been actually conceptualized as a geological transformation, as far as it is growingly accepted that the planet is changing so dramatically and quickly that a new geological era is emerging, as the Anthropocene.[3] Against this backdrop, the theoretical responses in the domain of law are designed as usual within a constitutional framework.[4] We imagine global constitutions and sketch concepts as sustainable development to make the crisis fit into our consolidated ideas and fix it through a solutionist view.[5]

Indeed, global environmental constitutionalism has been a topic in recent legal literature, in order to describe actual constitutional projects, as the Earth Charter, or to propose a comprehensive global commitment to deal

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1 In fact, all hegemonic knowledge is based in a legalistic approach: the search for regularities to be formulated as general laws. See, M. Delanda (2002), *Intensive Science and Virtual Philosophy*, London, New York: Bloomsbury, p. 149.

2 L.J. Kotzé (2012), "Arguing Global Environmental Constitutionalism", *Transnational Environmental Law,* 1 : 199-233.

3 P.J. Crutzen (2002), "Geology of Mankind", *Nature,* 415 : 23.

4 L.J. Kotzé (2016), *Global Environmental Constitutionalism in the Anthropocene*, Oxford, Portland: Hart, Passim.

5 J. Connelly and G. Smith (1999), *Politics and the Environment. From Theory to Practice*, London, New York: Routledge, p. 201.

with planetary change.[6] We expect to build a new (legal) order assuming that this crisis does not challenge our embedded ideas about politics, economy and law.[7] On the contrary, my premise is that, as far as we interpret the global ecological crisis as a planetary transformation of geological range, we cannot expect that the foundations of the hegemonic legal thought will remain untouched.[8] To explore the fundamental implications of planetary change in legal reasoning and, therefore, in the framing of the global environmental crisis, I think that we must start by focusing on how legalistic approaches define the hegemonic knowledge and, particularly, the legal reasoning.[9]

Legalism implies the search of regularity, and this assumes a particular framing of causality, assuming the simple interaction between individual actors of a given system, as implied by the hegemonic atomistic worldview.[10] According to this, the classical theory of causality starts from the idea of additivity. It groups together uniqueness (every effect is linked to a cause), necessity (when the cause occurs, the effect occurs), unidirectionality (the effects do not affect the causes, only causes effects), and proportionality (causes produce effects according to their own scope).[11]

According to this, since the seventeenth century, science has endeavored to establish regular laws, rather than to determine the concrete causes of events, nature being a mechanism governed by these rational laws.[12] This approach tends to simplify reality in order to identify univocal and determined causal relationships susceptible of generalization, and leave aside non-linear forms of causality (typical of complex systems), hiding real relationships under static categories that can be logically related through subsumption (legalistic reasoning).[13] From here, we leave causes aside and limit ourselves to identifying regularities.

In fact, the social structures that emerge in the context of capitalist economy are dependent on the establishment of predictable regularities, which allow the establishment of regulations, also predictable, that guarantee, ultimately, their reproduction, assigning responsibilities and evaluating risks.[14] The legalistic mentality in modern science clearly expresses its condition as a techno-capitalist practice, insofar as the generation of abstract certainties is essential for development of depersonalized relationships.[15] Consequently, there is a need to generate universal propositions that cover all phenomena as special cases, aiming to generate predictability.[16]

This legalistic form of reasoning is adopted in modern law and is still hegemonic, providing the mindset of global constitutionalism in order to confront the global environmental crisis.[17] However, this view implies ignoring the complexity of reality. To the extent that it emerges or is considered, disruptive non-linear events appear, quite simply, challenge legality and predictability.[18] This is precisely what happens with the expansion

6 L.J. Kotzé (2019), "A Global Environmental Constitution for the Anthropocene's Climate Crisis", in J. Jaria-Manzano, and S. Borràs (eds.), *Research Handbook on Global Climate Constitutionalism*, Cheltenham, Northampton: Edward Elgar, p. 69.

7 J. Dernbach and F. Cheever (2015), "Sustainable Development and Its Discontents", *Transnational Environmental Law,* 4(2): 247-287.

8 J. Jaria-Manzano (2021), "Di-vision: The Making of the "Anthropos" and the Origins of the Anthropocene", *Oñati Socio-Legal Studies,* 11(1): 152.

9 M. Rosenfeld and A. Sajó (2012), "Introduction", in M. Rosenfeld and A. Sajó, (eds.) *The Oxford Handbook of Comparative Constitutional Law*, Oxford: Oxford University Press, p. 4.

10 About the origin and the consequences of the atomistic perspective in the context of Galilean revolution. See, J. Dewey (1960), *The Quest of Certainty*, New York: Capricorn, p. 94-95.

11 See, Delanda, n. 1, p. 187-188.

12 P.S. Laplace (1951), *A Philosophical Essay on Probabilities* (English translation by F.W. Truscott, and F.L. Emory). New York: Dover Publications, p. 4.

13 A. Wulf (2016), *La invención de la naturaleza. El nuevo mundo de Alexander von Humboldt*, Barcelona: Taurus (Spanish translation by M.L. Rodríguez Tapia), p. 36.

14 For example, in the domain of health, see, L. Gruszczynski (2010), *Regulating Health and Environmental Risks under WTO Law*, Oxford: Oxford University Press, p. 22.

15 J. Jaria-Manzano (2011), *La cuestión ambiental y la transformación de lo público*, València: Tirant lo Blanch, p. 17.

16 See, Delanda, n.1, p. 149-151.

17 An example of this in Erika de Wet (2012), "The Constitutionalization of Public International Law", in M. Rosenfeld and A. Sajó (eds.), *The Oxford Handbook of Comparative Constitutional Law*, Oxford: Oxford University Press, p. 1224.

18 D. Vidas et al. (2015), "International Law for the Anthropocene? Shifting Perspectives in Regulation of the Oceans, Environment and Genetic Resources", *Anthropocene,* 1 : 11.

of social metabolism to a planetary scale, which is the socioecological process that paves the way to the Anthropocene.[19]

The growing interaction between social and natural systems which is the result of the Anthropocene increases complexity and accelerates the end of the window of stability which was the Holocene, making human history and Earth evolution converge in an ecosocial complex of unstable nature.[20] The relatively stable conditions of the Holocene have allowed the sedentarism of human species and its expansion to become dominant lifeform in the planet.[21] Thanks to their ability to manipulate the environment, humans have increased the structure of their settlements, maximizing the use of available resources.[22] This has produced patterns of behaviour, which, in the case of law, have given rise to the fundamental idea of legal certainty as a predominant principle, as far as the hegemonic conception of law is based on the assumption of certainty about the future evolution of events, so that the operators of the system can know in advance the consequences of their actions.[23]

However, the process of expansion of human species gives way to a progressive entanglement of human societies and planetary processes.[24] The process of colonization of nature through the consolidation and expansion of the capitalist economy, which massively uses the tools generated by the technoscience, ends up in a global ecosocial complex of enormous complexity, where the assumptions that have emerged in the process of planetary colonisation are challenged.[25] The traditional barriers of society and nature disappear and a completely new scenario of interaction is produced.[26] Thus, the Anthropocene is a geological process defined by the entanglement between social and natural systems which produces a new forms of complexity.[27]

The impact of human species, altering the climate and the biochemistry of the planet, gives way to an ecosocial complex of extraordinary complexity and ushers an "era of unpredictability in all Earth systems."[28] In this situation, human actions are capable of generating unforeseen turns, to the extent that the complexity itself prevents precision.[29] As a consequence, the traditional properties of causality in a legalistic framework are not fulfilled, and, consequently, the causality relationship ceases to be linear and, therefore, makes plausible non-linear disruptive events. In fact, this is what uses to happen in complex systems.[30] As a consequence, a break of regularity arises and uncertainty grows.[31] Against this backdrop, legalism seems completely inadequate to cope with the situation.[32]

19 M. Fischer-Kowalski and H. Haberl (1998), "Sustainable Development: Socio-economic Metabolism and Colonization of Nature", *International Social Science Journal,* 50(158): 573.

20 C. Colebrook (2017), "We Have Always Been Post-Anthropocene: The Anthropocene Counterfactual", in R. Grusin (ed.), *Anthropocene Feminism*, Minneapolis: University of Minnesota Press, p. 18-19.

21 J. Protevi (2011), "Ontology, Biology, and History of Affect", in L. Bryant et al. (eds.), *The Speculative Turn. Continental Materialism and Realism*, Melbourne: re.press, 2010, p. 405.

22 R. Fernández Durán L. González Reyes (2018), *En la espiral de la energía. Vol. I: Historia de la humanidad desde el papel de la energía (pero no solo)*, Madrid: Libros en Acción (2nd ed.), p. 63.

23 J. Jaria-Manzano (2020), *La constitución del Antropoceno*, València: Tirant lo Blanch, p. 89.

24 W. Steffen, et al. (2007), "The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature? *Ambio*, 36(8): 618.

25 A. Llano (1988), *La nueva sensibilidad*, Madrid: Espasa, p. 30.

10 Manuel Arias Maldonado (2018), *Antropoceno. la política en la era humana*, Barcelona: Taurus, p. 63.

27 J. Jaria-Manzano (2022), "Beyond Sustainability: Challenges for Environmental Law in the Era of Uncertainty", *Environmental Policy and Law,* 52(2): 100.

28 M.R. Gillings and E.L. Hagan-Lawson (2014), "The Cost of Living in the Anthropocene", *Earth Perspectives,* 1(2): 2.

29 N.N. Taleb (2010), *The Black Swan. The Impact of the Highly Improbable*, New York: Random House (2nd ed.), p. 268.

30 The awareness about the relationship between complexity and uncertainty can be traced until the foundational period of environmental, as shows, for example, K.A. Manaster (1978), "Law and the Dignity of Nature: Foundations of Environmental Law", *Land Use and Environment Law Review*, 16.

31 The butterfly effect, which gave rise to chaos theory, was detected by Edward Lorenz when he found, operating a mathematical model for climate dynamics, that a small variation in the initial parameters could lead to extremely different developments. This was represented through the image of the flapping of the wings of a butterfly in Brazil which causes a tornado in Texas. See, Taleb, n.29, p. 179.

32 J. Jaria-Manzano (2021), "La constitución es un campo de batalla. Apuntes sobre el constitucionalismo global en el Antropoceno", *Personae Amministrazione,* 8(1): 828.

The Promethean project of domination of the nature gives way to a growing process of planetary transformation.[33] At the end, with a certain irony, the expansion of (human) order ends in disorder, a new scenario where the planetary changes induced by humans—particularly, within the social evolution of the last two centuries with the consolidation of capitalism as a global civilization—give way to a modification of the biosphere as whole which is "largely irreversible."[34] As technoscience itself delves into the consequences of the transformation processes of the Earth System that have been unleashed by deployment of the capitalist world-system in recent centuries, it ends up faced to uncertainty, non-linearity and disruption.[35] In this context, order is challenged and exception becomes the rule.

Giorgio Agamben has explained this in a very sharp fashion. The Italian philosopher states that "in every area of our cultural tradition, from politics to economics, from philosophy to literature, the state of emergency has become the rule [. . .]. And every power, no matter whether democratic or totalitarian, traditional or revolutionary, has entered a crisis of legitimacy, in which the state of exception, which was the hidden foundation of the system, emerges into full light."[36] In this scenario, the role and the significance of law is fully reversed. From the idea of regularity where there is nothing outside the law, we are shifting to a situation where "everything—even the law—is outside the law."[37]

In a deep ecological crisis which raises uncertainty all the foundations of social life are at a stake and a new legal imagination becomes necessary.[38] As far as the exception appears as the mark of the new times we should explore new legal imaginations beyond the traditional constitutional order, in order to cope with the most significant change that humanity as a whole has experienced since the Neolithic Revolution and the beginning of the sedentary life.[39] The global pandemic of the COVID-19 shows the kind of disruptive events the emergence of an ecosocial global complex can unleash and helps to frame this exploration.

2. A Clue: Pandemics as disruption

It seems well established the link between the loss of biodiversity, caused by human colonization of the planet, and the increase of zoonotic diseases in recent decades.[40] In fact, it has been found that climate change tends to increase the geographical scope, seasonality and contagion of already existing infectious diseases, such as malaria, dengue or Lyme disease.[41] Human expansion simplifies life forms and disappearing ecosystems can no longer contain viruses, which move towards human hosts. Consequently, a connection can be established between the reduction of biodiversity and the appearance of zoonotic diseases originating in the wildlife, which constitute the group of emerging infectious diseases that tends to increase the most.[42]

Since planet Earth has a limited capacity to host living beings, the increase in the presence of one species tends to eliminate the space available for the others.[43] On the other hand, to the extent that the human

33 T. Fleiner-Gerster (1990), Die Zukunft des schweizerisches Rechtstaates, *Festgabe Alfred Rötheli zum fünfundsechzigsten Geburstag*, Solothurn: Staatskanzlei des Kantons Solothurns, p. 89.

34 W.V. Reid et al. (2010), "Earth System Science for Global Sustainability: Grand Challenges", *Science,* 330 : 917.

35 R.T. Vid. Franson et al. (2004), "Introduction", in R.T. Vid. Franson, (ed.), *Canada Environmental Law* (2nd edition), p. 8.

36 G. Agamben (2005), *La potenza del pensiero. Saggi e conferenze*, Vicenza: Neri Pozza Editore, p. 265. The translation is mine.

37 *Ibid.*

38 J. Jaria-Manzano, n.8, p. 170.

39 K. Klingan et al. (2014), "Introduction" In K. Klingan et al. (eds.), *Textures of the Anthropocene. Vapor*. Haus der Kulturen der Welt, MIT: Berlin, Cambridge, p.10, point out that "[t]ransitional times call for transitory imaginations".

40 K.F. Smith et al. (2014), "Global Rise in Human Infectious Disease Outbreaks", *Journal of the Royal Society Interface,* 101 : 111; K.E. Jones et al. (2008), "Global Trends in Emerging Infectious Diseases", *Nature,* 45(1): 990. For example, a link has been established between wild deforestation in West Africa and the spread of Ebola; as well as between the same phenomenon and the SARS, a precursor to COVID-19, in the case of the Far East. See for this, K. Hirschfeld (2020), "Microbial Insurgency: Theorizing Global Health in the Anthropocene", *The Anthropocene Review,* 7(1):10.

41 W.K. Al-Delaimy and M. Krzyzanowski (2018), "A Policy Brief: Climate Change and Epidemiology", *Epidemiology,* 30(1): 1.

42 K.E. Jones, n. 40 p. 992; and P.H. Raven (2020), "Biological Extinction and Climate Change", in W.K. Al-Delaimy et al. (eds.), *Health of People, Health of Planet and Our Responsibility: Climate Change, Air Pollution and Health*, Cham: Springer, p. 12.

43 *Ibid*, p. 13; W. Arber (2020), "Complexity of Life and Its Dependence on the Environment", n. 42, p. 7.

colonization of the planet tends as well to reduce life forms, fewer germs will tend to survive, but they use to be more efficient and, consequently, with higher rates of expansion and lethality.[44] The global expansion of the human population and its concentration in large cities will make it particularly vulnerable to outbreaks of these possible supergerms. Subsequently, it should be noted that the presence of toxins in the atmosphere or in the diet, also coming from the transforming activity of human beings on the Earth System, affect the immune system of human beings, making them susceptible to infection, as has been pointed out in the case of COVID-19.[45]

Despite the ecomodernist claims, which suggest that human beings can come to dominate the socio-natural processes unleashed within the framework of the geological transition, it seems that the post-Holocene instability, the prominence of non-linear disruptive events and the confluence and entanglement of various agencies call into question the claim of a human will as the dominating element of the new situation of the Earth System, which rather seems to be "noisy".[46]

The COVID-19 shows a significant example of a nonlinear disruptive event of global impact in the context of the evolution of the contemporary ecosocial system, revealing how the Anthropocene is to be expected a more instable period than the Holocene, whose stable conditions allowed human sedentarization and development.[47] We are faced with a situation in which the available knowledge cannot provide certainty regarding the future evolution of the Earth System and, therefore, cannot conclusively inform decision-making processes about the course suitable action.[48] As Vaclav Smil underlines, "[t]his global environmental challenge has no clear and ready technical fix."[49]

In short, there are no correct and definitive answers, but rather provisional information that changes with the evolution of events, which, in part, respond to the decisions that human communities make based on this circumstantial and volatile knowledge.[50] In this way, it can be concluded that the available evidence, always open to the change that is generated by both the factual circumstances themselves and the evolution of knowledge—processes, on the other hand, mutually intertwined—points towards an unstable scenario, in which the tools and the perspectives developed within the framework of the Holocene, characterized by its relative stability, are inappropriate and, to some extent, misleading.[51]

Thus, the planet is redefined, in the new geological context, by discontinuity, the dissolution of self-identity and multiplicity, escaping the attempts at conceptual domestication advocated by ecomodernism, which attempts to return to us the image of a "discovered, interconnected and singularized earth."[52] Therefore, the new geological epoch, to the extent that it opens a period of unpredictability, threatens to destabilize human societies as we know them, opening a period of unpredictable tensions, aroused by nonlinear disruptive episodes that may occur, such as it happened with the COVID-19 pandemic and could happen with new pandemics in the future.[53] Nevertheless, the response to the pandemics was exceptional politics (and law) to restore normality. This tells us a lot about the inertia of legalism and its implications.

44 See, Taleb, n.29, p. 316.

45 A. Tsatsakisa et al. (2020), "COVID-19, An Opportunity to Reevaluate the Correlation between Long-term Effects of Anthropogenic Pollutants on Viral Epidemic/Pandemic Events and Prevalence", *Food and Chemical Toxicology,* 14(1): 111-418.

46 B. Szerszynski (2017), "Gods of the Anthropocene: Geo-Spiritual Formations in the Earth's New Epoch", *Theory, Culture & Society,* 34(2-3): 254.

47 See, Gillings, n. 28, p. 1.

48 E. Gudynas (2009), "Seis puntos clave en ambiente y desarrollo", in A. Acosta and E. Martínez (eds.), *El Buen Vivir. Una vía para el desarrollo*, Quito: Abya-Yala, p. 46.

49 V. Smil (2008), *Energy in Nature and Society. General Energetics of Complex Systems*, Cambridge, London: The MIT Press, p. 380.

50 C.A. Morand (1991), La coordination matérielle: De la pesée des intérêts à l'écologisation du droit, *Umweltrecht in der Praxis / Le droit de l'environnement dans la pratique*, p. 210.

51 See, Gillings and Hagan-Lawson, n. 29, p. 7.

52 N. Clark (2017), "Politics of Strata", *Theory, Culture & Society,* 34(2-3): 226.

53 D. Vid. Vidas et al. (2015), "International Law for the Anthropocene? Shifting Perspectives in Regulation of the Oceans, Environment and Genetic Resources", *Anthropocene,* n. 18, 1 : 11.

3. The "New" Normality: Nostalgia of Legality and Technocratic Agenda

Governments all over the world confronted global pandemics with different exceptional measures, from lockdowns to mandatory vaccination. The final aim of all this was the restoration of normality.[54] How the disruptive event was metabolized shows the type of response that is expected to be deployed by global and local institutions before the challenges of the global ecological crisis: return to (constitutional) order, as far as what is expected from political institutions is to satisfy the social needs of protection and stability under the rule of law.[55] Accordingly, the ecomodernist approach is based in the construction of some kind of "new" normality under the umbrella of sustainable development and circular economy and so on and so forth. The solution is more modernity.[56]

Confronted with the global environmental crisis as well as with the disruptive events which can arise from it, the "normal" is the aspiration to normality, i.e. the restoration of regularity to which we are used to. This is why the constitutional framing of the crisis is so appealing. However, what is wrong with this? Why not aspire to a global order based in sustainable development, for example, with the shape of the goals established by United Nations? Why not to have a global compact based on human rights, social welfare and environmental protection?[57]

In my opinion, the COVID-19 crisis shows the shortcomings of such an expectation, which are twofold and interrelated: the erosion of democracy and the illusion of control. The response to the global pandemics was framed through a technical approach, using exception as a means to overcome the checks and balances of the system and treating citizens as objects instead of subjects of the political life, all this intended to restore "normality" by controlling the disruptive episode through technopolitical devices.[58] During the pandemics, experts have acquired a fundamental role in public debate, generating trust or mistrust based on a professional prestige that is socially constructed, situation maximized by the impact of social networks in shaping public opinion, which is eager to believe in technical fixes of any problem.[59] This belief boosts a technocratic bias, which is conquering decision-making processes in a situation of crisis.

This tends to create a unique legal space, in which hegemonic processes of the technocapitalist order are reinforced and the expectation of order is maintained as the expected outcome of the crisis. Accordingly, disruptive events are confronted with the aim of restoring normality through a technical fix. The nostalgia of legality and regularity in a situation of social bewilderment propels technocratic inertias, which dominate decision-making processes facing up the disruption.[60] The idea of order is thus preserved, as it happens with dominant legal responses to the Anthropocene, where the aspiration to build a global constitutional order seems to neglect the likelihood of disruptive nonlinear events in a scenario of planetary change.[61] In fact, a global constitutional orders seems to be the natural horizon of an significant international legal scholarship.[62]

Technocratic governance of disruption and global environmental order are the two sides of the same coin, as far as both rely on the modern link between regularity, legality and predictability. Law, as we know it, assumes of some kind of certainty regarding the future evolution of events, so that the operators of the system can know in

54 J. Jaria-Manzano (2020), "La pandemia, el Antropoceno y el Derecho: ensayo de interpretación", in J.R. Fuentes Gasó et al. (eds.), *El impacto social de la Covid-19. Una visión desde el Derecho*, València: Tirant lo Blanch, p. 25-63.

55 L. Duguit (1923), *Manuel de droit constitutionnel*, Paris: E. de Boccard Éditeur (4th ed.), p. 26.

56 See, Arias Maldonado, n. 26, p. 224.

57 This is, in fact, the original idea behind sustainable development. See, L. Mader (2000), "Die Umwelt in neuer Verfassung? Anmerkungen zu umweltschutzrelevanten Bestimmungen der neuen Bundesverfassung", *Umweltrecht in der Praxis / Le Droit de l'environnement dans la pratique*, p. 110.

58 R.E. Dunlap (2001), "La sociología medioambiental y el nuevo paradigma ecológico", *Sistema* 162/163 : 14, denounces such an approach analysing the earlier responses to the global ecological crisis.

59 J.D. Vid. Lee (2014), *An Epidemic of Rumours. How Stories Shape Our Perceptions of Disease*, Boulder: Utah State University Press, p. 9.

60 See, Gruszczynski, n. 14, p. 22.

61 L.J. Klotz (2012), "Arguing Global Environmental Constitutionalism", *Transnational Environmental Law,* n. 2, 1 : 199.

62 A. Peters (2015), "Global Constitutionalism", in M. Gibbons (ed.), *The Encyclopedia of Political Thought*, Bognor Regis: Wiley-Blackwell, p. 1-4.

advance the consequences of their actions.[63] Legal certainty becomes the core idea of the rule of law, promoting a uniform legal space where economic exchange processes can occur and propelling techno capitalist economy, at the expense of traditional forms of coexistence.[64]

Thus, legal certainty is fundamental in establishing the guidelines through which the domination of nature by humans is possible, giving way to a process of aggressive adaptation which culminates in the techno capitalist world-economy and the emergence of human species as geological force.[65] Obviously, in this context, uncertainty is rejected and disruptive events are treated as an exception to the "normality" of legal order, given the inability of societies, especially the most evolved in the context of the techno capitalist world-economy, to cope with a situation beyond the cultural patters assumed in the long process of sedentarization. Consequently, neither contemporary societies nor their institutions are prepared to respond to abrupt changes of nonlinear nature.[66]

However, as far as we take seriously the unstable nature of ecosocial processes in the Anthropocene, we cannot expect a horizon of normality in which the planet is tamed and disruptive nonlinearity is cornered to harmlessness; it does not provide a "happy ending," as David Chandler expresses it.[67] In this situation, technocratic solutions do not only erode democracy, but also are a "dangerous, false and hubristic" response, without being able to effectively provide a remedy to either the consequences of disruptive nonlinear events of catastrophic potential in the future, or the injustices, inequalities and suffering that have derived from human colonization of the Earth System.[68]

A greater plausibility of nonlinear disruptive episodes is to be expected in the Anthropocene, causing network disruption of unforeseeable extent.[69] In this situation, the current political narratives and, in particular, constitutional law as we know it seem to be inadequate to address the situation. If we do not confront the challenge of redesign legal tools in order to protect people and life, we are taking the risk of technocratic solutions in the framework of the state of exception, exacerbating vulnerability and inequality as far as the (constitutional) order becomes only a utopia which legitimizes growingly uncontrolled forms of power. As Fleurke et al. point out, "there is every reason to resist global attempts by oligopolies of powerful and unaccountable private developers of technologies to capture regulatory modalities that parasitize the 'rule of law.'"[70] To avoid this, we need to explore new ideas about how to respect and defend people, communities, even life in a radically changing scenario.

4. Alternatives: Fragmentary Democracies and Socioecological Conflict

If the building of a global constitutional order for governing the Anthropocene is misleading as far as the global ecosocial complex has such a complexity that makes it impossible to be governed, as far as a permanent flow of nonlinear disruption is to be expected, is there any alternative? In a previous contribution to this journal, I have proposed resilience as an alternative to sustainable development.[71] Resilience is clearly oriented to give a response to (nonlinear disruptive) change, as far as it consists in a "the ability of institutions and governance to grapple with change, surprise and multiple interactions between human-environmental systems",[72] while sustainability is related with perpetual repetition.[73]

63 G. Caballero Germain (2003), "Seguridad jurídica y relaciones entre el «common law» y el Derecho continental-romano", *Revista de Derecho de la Pontificia Universidad Católica de Valparaíso,* XXIV: 197.

64 X. Etxeberria (2006), "La tradición de los derechos humanos y los pueblos indígenas: una interpretación mutua", in M. Berraondo (coord.), *Pueblos indígenas y derechos humanos*, Bilbao: Universidad de Deusto, p. 65.

65 See, Fischer-Kowalski & Haberl, n. 19, p. 581; and Jaria-Manzano, n. 23, p. 74.

66 See, Reid et al., n. 34, p. 917.

67 D. Vid. Chandler (2018), *Ontopolitics in the Anthropocene: An Introduction to Mapping, Sensing and Hacking*. London: Routledge, p. 202.

68 Ibid., p. 214.

69 See, Taleb, n. 29, p. 61.

70 F. Fleurke et al. (2024), "Constitutionalizing in the Anthropocene", *Journal of Human Rights and the Environment,* 15(1): 15.

71 See, Jaria-Manzano, n. 27.

72 V. Galaz (2014), *Global Environmental Governance, Technology and Politics*, Cheltenham, Northampton: Edward Elgar, p. viii.

73 K. Bosselmann (2008), *The Principle of Sustainability: Transforming Law and Governance*, Farnham, Burlington: Ashgate, p. 17.

Energy transition is one of the most important social developments in the context of the global environmental crisis and it is intimately related to mitigation and adaptation of climate change.[74] As far as it redefines "the role, rights and responsibilities of citizens in a democratic legal system,"[75] energy transition can give some clues about how resilience and governance can match in an open constitutional framework. Indeed, one of the most consistent findings in the development of energy transition is the resilience of distributed networks compare to centralized ones.[76] As Wentz and Pappalardo point out "localized network[s] of electricity sources and loads that can be controlled to ensure reliable operation when the system is isolated or connected to another grid."[77]

In this context, energy communities have been developed as local energy suppliers capable of dealing with change while deepening democracy in a traditionally oligopolistic scenario.[78] They constitute an organizational structure aimed at building a decentralized energy model and, therefore, with greater resilience in the face of nonlinear disruptive episodes in the context of geological transformation and the progressive scarcity of fossil fuels.[79] Moreover, energy communities can become social niches that drive innovation, "because they combine production and consumption in the household segment, which results in new forms of organizations, business models and institutions."[80] In any case, they are more than a technocratic solution, as far as "even though technology enables the model change, the driver behind the change is political, and the law underpins an ongoing societal transformation."[81]

To sum up, energy communities are at the same time adaptative social artefacts to reach resilience facing up nonlinear disruptive changes, local organizations to deepen democracy, and innovative clusters not only from a technological but also from a social point of view. These three characteristics are to be expected of local communities in a fragmented and evolving global social network. I think that we can expect more from local creativity and adaptation in an unstable scenario than from a global constitutional order in risk of being captured by technocracy. Accordingly, I believe that we should explore how to fragment social structures in the Anthropocene than to create a global constitutional order to govern the planet.

The first reason is, as I have stressed already, that evolving fragmentation is more likely to provide socioecological resilience. The second reason is that fragmentation is more likely to strengthen democracy. In fact, even etymologically, democracy is based in division, as far as "δ ῆ μος" is in origin a part of a whole.[82] I think that fragmented democracies at local level are more truly democratic that biggest ones, let alone some kind of global democracy. In fact, in current democracies, citizens are losing their political power because of the "shortcuts" that allow powerful actors to condition the content of political decisions by ignoring the population.[83] In this context, corporate capture occurs, which, on the other hand, also responds to the capacity of large corporations to pressure governments because of their dependence on the investments they can make.[84]

74 N.K. Dubash (2016), "Climate Change through the Lens of Energy Transformation", in S. Nicholson and S. Jinnah (eds.), *New Earth Politics. Essays from the Anthropocene*, Cambridge (Mass.), London: The MIT Press. p. 316-317.

75 A. Guerry (2016), "A Reflection on Some Legal Aspects of Decision Control in the Energy Transition Process: A Comparison of France and Germany", J. Jaria i Manzano at el. (eds.), *Energy, Governance and Sustainability*, Cheltenham, Northampton: Edward Elgar, p. 195.

76 M. Powers (2019), "Energy Transition: Reforming Social Metabolism," in Jaria-Manzano and Borràs, n. 6, p. 274.

77 J. Wentz and C. Pappalardo (2016), "Scaling up Local Solutions: Creating an Enabling Legal Environment for the Deployment of Community-based Renewable Microgrids", in Jaria Manzano, Chalifour and Kotzé, n. 75, p. 102.

78 A. Caramizaru and A. Uihlein (2020), *Energy Communities: An Overview of Energy and Social Innovation* (EUR 30083 EN), Publications Office of the European Union, Luxemburg, p. 29.

79 S. Moroniet et al. (2019), "Energy Communities in the Transition to a Low-carbon Future: A Taxonomical Approach and Some Policy Dilemmas", *Journal of Environmental Management,* 236 : 245.

80 G. Dóci et al. (2015), "Exploring the Transition Potential of Renewable Energy Communities", *Futures,* 66 : 87.

81 E. Cocciolo (2024), "The Role of Energy Communities for Thermal Networks: An EU Legal Perspective, *Review of European, Comparative and International Environmental Law*, 87.

82 See, Agamben, n. 36, p. 165.

83 An example of this is the influence of one of the largest global energy companies, ExxonMobil, on political processes in different parts of the world, as noted by T. Di Muzio (2015), *Carbon Capitalism. Energy, Social Reproduction and World Order*, London, New York: Rowman & Littlefield, p. 38-39.

84 F.J. Laporta (2009), "Globalización e imperio de la ley. Algunas dudas westfalianas", in M. Carbonell and R. Vázquez (eds.), *Globalización y Derecho*, Quito: Ministerio de Justicia y Derechos Humanos, p. 213.

At the end, it must be admitted that, rather, democracy today is a form of organization of coexistence which is under enormous stress and is subject to very serious threats. It not seems to me that the way out is advancing to a global democracy, but rather empowering local communities and taking seriously its diversity.[85] It is more about the construction of small-scale community dynamics than the expansion of increasingly extensive democratic arithmetic, which end up generating mistrust, exclusion and confrontation. The idea of *Rekommunialisierung*, developed in Germany regarding energy transition, is inspiring.[86] Indeed, "[s]maller communities have the advantage of more effective citizen engagement and can be highly innovative."[87] This capacity of innovation in a complex system of local legal *poiesis* gives the third reason for enhancing local democracy in the context of planetary transformation.

However, local spaces are not only places to build democratic consensuses, but also places where conflict develops. Constitutional order is to some extent a negation of conflict as far as works as a fundamental consensus of a certain political community.[88] But, it seems obvious that the planetary transformation with its disruptive dynamics is an occasion for socioenvironmental conflict.[89] These conflicts point out to two significant evolutions of law in the context of global environmental crisis: the importance of adjudication, i.e. of the decisions of the courts in concrete cases, and the importance of social self-government beyond conventional constitutional institutions.

Regarding the first aspect, we can find a very interesting example in the case of climate change law. In a paper published twenty years ago Allen and Lord foresaw a shift from regulation to adjudication regarding the legal response to climate change.[90] Since then, climate litigation has grown steadily, giving counter-hegemonic movements to influence public debate and counteract the inertia of institutional structures using the courts.[91] In fact, climate litigation is a manifold phenomenon that illustrates the complexity of socioecological conflicts in the context of planetary change.[92] In any case, the dynamics beyond legal order and the importance of concrete decisions gain importance, as awareness of planetary transformation underlines the importance of building resilience. The emphasis in adaptation grows, as can be seen particularly regarding climate change, as far as extreme weather events (disruptive nonlinear events) confirm the dynamics of planetary transformation.[93]

Litigation grows as a tool for generate new responses to the process of planetary change, circumventing regulatory capture, reversing the technocratic and opaque dynamics of institutionalized decision-making processes and offsetting the inertia of ecomodernist solutions in the context late techno capitalism. Obviously, the increase of litigation regarding public policies decided according to current democratic standards is not free of objections, some of them going back to the foundations of modern constitutionalism, as the fear of the government of judges.[94]

In any case, this phenomenon shows the potential for innovation of environmental conflicts, where new concepts can be developed more easily than in the conventional decision-making process, strongly eroded from the point of view of democratic legitimacy.[95] In this sense, I assume that litigation and, in general, environmental conflicts provide ways to explore new legal narratives to respond to the geological transition, being not only a counter-majoritarian strategy but also a tool for deepening democracy, helping to building provisional and overlapping

85 *N.* Pacari (2009), "Naturaleza y territorio desde la mirada de los pueblos indígenas", in A. Acosta and E. Martínez (eds.), *Derechos de la Naturaleza. El futuro es ahora*, Quito: Abya-Yala, Quito, p. 36.

86 See, Guerry, n. 75, p. 213.

87 K. Bosselmann (2019), "The Atmosphere as a Global Common", in n. 6, p. 80.

88 See, Marbury v. Madison, 5 U.S. 137 (1803).

89 Again, energy transition is a good example of this, as it showed in J. Knauf and R. Wüstenhagen, (2023), "Crowdsourcing Social Acceptance: Why, When and How Project Developers Offer Citizens to Co-invest in Wind Power", *Energy Policy,* 173 : 2.

90 M.R. Allen and R. Lord (2004), "The Blame Game", *Nature,* 432 : 551.

91 J. Peel and H.M. Osofsky (2015), *Climate Change Litigation: Regulatory Pathways to Cleaner Energy*, Cambridge, New York, Melbourne, Delhi, Singapore: Cambridge University Press, p. 221.

92 G. Médici-Colombo (2024), *La litigación climática sobre proyectos hacia un punto de inflexión en el control judicial sobre la autorización de actividades carbono-intensivas?* València: Tirant lo Blanch, p. 173.

93 See, Peel & Osofsky, n. 91, p. 109.

94 J.E. Nowak and R.D. Rotunda (2010), *Constitutional Law*, St. Paul: West (8th ed.), p. 13.

95 D. Held (2009), "Hay que regular la globalización? La reinvención de la política", in n. 84, p. 78.

consensuses in the context of a dynamic, open and evolving legal structure.[96] This is the case of environmental justice, a powerful concept designed and developed by social movements, first in the United States, then all over the world.[97]

Beyond the idea of legal order, I think that both local democracy and socio-environmental conflict allows to advance into a new concept of what law should be (and to some extent is actually nowadays): the always fragile and provisional fixation of social consensus in never ending process of legal *poiesis*. Here, litigation would be an institutional manifestation, familiar to the hegemonic ideas, of how law is moving away from the idea of order, but, in fact, new legal experiences are emerging in the complex dynamics of conflict generated by the uncertainties, disruptions and obscurities entailed by the Anthropocene.[98]

These dynamics allow us to move away from a concept of law as social order, linked to legal positivism, based on regulation and focused on regularities.[99] In fact, legal positivism has been more a hurdle than a support regarding several explorations and innovations to confront the global environmental crisis.[100] Accordingly, we should explore the idea of constitution less as an order, and more as an evolving and controversial multispace for social adaptation to an uncertain context of nonlinearity, where collisions between social groups and social conceptions are provisionally resolved.[101] The law emerges here rather as an event than as an order. This changing multispace beyond legal order should be a place of legal innovation, where some new needs emerging in the context of planetary transformation should be confronted.

Particularly, I have insisted in the idea of a socioecological complex emerging in the process of human colonization of the planet. The emergence of a global ecosocial complex, where traditional divisions between humans and nonhumans are blurred, implies also new perspectives about the production of normativity in a context of uncertainty, complexity and recurrent disruption. It seems to me obvious that dealing legally with this socioecological reality brings forth the question of how to treat nonhuman agency. Some recent explorations point out to how embedded categories of public law as rights or democracy are challenged by the inclusion of nonhuman beings. Particularly, autonomy and self-determination as core concepts of modern constitutional should be surpassed to build a new sense of (ecosocial) community.[102]

Obviously, this raises difficulties, as how "might representational practices in politics and law make sense of entangled and intra-active relations between humans and nonhumans" or "how can representational practices account for differential abilities to act within more-than-human collectives, without regressing into familiar relations of subjugation."[103] To walk this path requires of legal innovation which typically is produced in a complex exchange between different law events where concrete social conflicts are (provisionally) resolved.

5. (Not an Actual) Conclusion: The Humility of Lawyers

This paper cannot have a real conclusion. Rather it should end by a prelude, pointing out to how law and lawyers should get into a concealed path of self-reconstruction. As far as I am arguing the need to overcome the idea of a global constitutional order aimed to frame Earth System governance in the Anthropocene, and endorsing the capacity of community self-government and socioecological conflict to generate, in an evolving and open process, the new legal narratives to confront the messy scenario of planetary change, I should advocate

96 J. Jaria-Manzano (2015), "La identificación del Derecho aplicable en un contexto normativo complejo", *Diálogos sobre la justicia y los jueces*, Barcelona: Centre d'Estudis Jurídics i Formació Especialitzada, p. 100.

97 R.J. Lazarus (1994), "Pursuing Environmental Justice: The Distributional Effects of Environmental Protection", *Land Use and Environment Law Review*, 263-333.

98 A. Noguera Fernández (2019), *La ideología de la soberanía. Hacia una reconstrucción emancipadora del constitucionalismo*, Madrid: Trotta, p. 129.

99 Peer Zumbasen (2012), "Carving our Typologies and Accounting for Differences across Systems: Towards a Methodology of Transnational Constitutionalism", in n. 9, p. 96.

100 L.E. Rodríguez-Rivera (2001), "Is the Human Right to Environment Recognized Under International Law", *Colorado Journal of International Environmental Law and Policy,* 12(1): 37.

101 C. De Cabo Martín (2014), *Pensamiento crítico, constitucionalismo crítico*, Madrid: Trotta, p. 59.

102 See, Fleurke, F. et al., n. 70, p. 8.

103 *Ibíd*., p. 10.

also for a certain academic humility, more pragmatic modesty than utopian ambition, more local thought than global designs.

Constitutional orders still exist, as far as current political communities believe in their existence and concrete social conflicts are confronted through the lens of a legal order, but law is growingly appearing as an event, something that happens momentarily and projects its consequences in the future (probably in a nonlinear fashion, as factual events in the Anthropocene). Consequently, constitution is already an evolving and open process: neither the constitutional decision exhausts the future possibilities of resolving a conflict, nor does the constitutional regulation define an exclusive and perennial community. After millennia of sedentarism we should use to the idea of leaving the house away and living in a tent, to abandon the aspiration to a legal order and to assume law as an event.

In the face of the most important change that humanity has experienced so far, it seems hubristic to aspire to an overarching solution based in some kind of order to govern the planet. I think that is wiser to concentrate on the concrete, the small changes, rather than on all-embracing schemes. The law emerges here as an "a provisional normative aggregation solving a conflict in a kaleidoscopic legal universe."[104] It is not about legitimizing what is there, as those who pay attention to formal constitutional law, nor about looking for an alternative, as those who engage in constitutional change, but about exploring the fracture points through which specific conflicts generate innovations and promote resilience. In this context, it seems to me that professional lawyers and particularly academics should rather focus in foster social creativity in bottom-up processes, than in theorizing a new constitutional order with a top-down perspective. With this, they will embark on a voyage into the unknown, helping different human communities to navigate the stormy ocean of the Anthropocene.

104 J. Jaria-Manzano and S. Borràs (2019), "Introduction", n. 6, p. 8.