Resilient Property, Climate Change and the decision in Verein KlimaSeniorinnen Schweiz and Others v Switzerland

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Bram Akkermans and Lorna Fox O'Mahony[1]

1. Introduction

Recent 'climate change' decisions have opened up important questions for property lawyers in relation to the future role of property law—and more specifically 'land law'—in exacerbating or mitigating climate and ecological harms. Nicole Graham described property rights as: "one of the greatest obstacles to the objectives and implementation of environmental law."[2] Environmental and ecological sustainability, anthropogenic change and actions to advance the UN's Sustainable Development Goals (SGDs) depend on material land use practices.[3] Yet, one legacy of the Law of Property Act 1925 (and the 1925 legislation more generally)[4] was the 'de-materialisation' of property in land. This was epitomised in the project of 'assimilating the law of real and personal property whenever practicable',[5] and more recently in the aims of the Land Registration Act 2002: "the introduction of a system dealing with land in de-materialised form."[6] This schism, between material realities and de-materialised rights, highlights the critical role of property lawyers in navigating two defining forces for change in the mid twenty-first century: environmental and ecological unsustainability and the role of property law policies in enabling or disabling legal and political action to mitigate climate change, on the one hand; and the further dematerialisation of land ownership and governance systems through digitalisation on the other. As domestic land law systems are subjected to the speculative demands of (globalized) capital investment markets and the dematerializing processes of platform real estate ('PropTech'),[7] the material destabilisation of land, environments, and ecology poses urgent questions for property legislators, litigators, and scholars.

The interconnectedness of private property, housing, environmental sustainability—and their impact, in aggregation, on the health and wellbeing of populations—was

[1] We thank Jessica Owley, Marc Roark and Alexandra Flynn for helpful feedback on an earlier draft, and Vidir Peterson and Björn Hoops for discussing these cases with us.

[2] N Graham, 'Dephysicalised Property and Shadow Lands' in R Bartel & J Carter (eds) *Handbook on Law, Space and Place* (Edward Elgar, 2020).

[3] UN Committee of Economic, Social and Cultural Rights (OHCHR) General Comment No. 26 (2022) on land and economic, social and cultural rights, E/C.12/GC/26, 24 January 2023.

[4] *See* D Cowan, L Fox O'Mahony & N Cobb (2023), *Great Debates in Land Law* (3rd Edn, 2023), Chapter Three.

[5] Sir B Cherry, D Parry & J Maxwell, *Wolstenholme & Cherry's Conveyancing Statutes* (12th Edn, London: Stevens and Sons, 1932), p12.

[6] Law Commission & HM Land Registry, *Land Registration for the Twenty-First Century: A Consultative Document*, Law Com No 254 (HMSO, 1998), [1.2]. *See* Cowan *et al*, *op cit*, Chapter Five; L Fox O'Mahony, 'Land Registration: Promoting unsustainable land policy' [2023] *Conveyancer and Property Lawyer* 143-145.

[7] M Roark and L Fox O'Mahony, 'Real Transactions in the Network Society: Platform Real Estate, Housing Hactivism, and the Re-scaling of Public and Private Power' (2023) 46(4) *Journal of Consumer Policy* 445-463; L Fox O'Mahony & M Roark, 'Speculation, squatting and sustainability' in C Bevan (ed) *Research Handbook on Property Law and Theory* (2024, Edward Elgar).

central to the recent decision of *Verein KlimaSeniorinnen Schweiz and Others v Switzerland*.[8] In finding that critical gaps in the Swiss Federation's framework for mitigating climate change constituted a violation of Article 8 of the European Convention on Human Rights (ECHR), the Grand Chamber of the European Court of Human Rights (ECtHR) recognised that Article 8 includes a right to effective protection by the State authorities from the serious adverse effects of climate change on lives, health, well-being, and quality of life. In this article, we reflect on the decision in *KlimaSeniorinnen* in relation to Article 8, Article 1 of the First Protocol to the ECHR (A1P1) and the wider jurisdiction of the ECtHR, and for English land law more generally.

The material impacts of land use in exacerbating and mitigating anthropomorphic climate change and in bearing the brunt of its consequences, is a central theme in climate and environmental rights law and policy debates. For example, the Panel on Climate Change (IPCC) AR6 "Synthesis Report: Climate Change 2023" highlighted both the role of unsustainable land use in causing climate change and the impact of climate change on land, property rights, and owners.[9] The UN Committee on Economic, Social and Cultural Rights General Comment No 26 (on land and economic, social and cultural rights)[10] has stated that:

> "The impact of climate change on access to land, affecting user rights, is severe in many countries. In coastal zones, sea level rise has an impact on housing, agriculture and access to fisheries. Climate change also contributes to land degradation and desertification. Rising temperatures, changing patterns of precipitation and the increasing frequency of extreme weather events such as droughts and floods are increasingly affecting access to land."

The decision in *KlimaSeniorinnen* was framed by a clear acceptance and acknowledgment, not only that land use affects climate change but, and that climate change will affect both the use and the enduring value of land in the future.

Graham argued that the de-physicalisation of land allows the impacts of climate and ecological degradation to be 'othered' to 'shadow lands': both geographically, in the sense of "those who live in resource-supply areas or who find themselves on the receiving end of the industrial waste-stream";[11] and in relation to the identities of people who carry the greatest risks: "…facilitat[ing] a powerful cultural fantasy that whatever externalities there may be, their cost will be borne by anonymous and

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[8] Application no. 53600/20.

[9] The Grand Chamber judgment noted that: "human activities, principally through GHG emissions (increasing with unequal historical and ongoing contributions arising from unsustainable energy use, land use and land-use change, lifestyles and patterns of consumption and production across regions, between and within countries, and among individuals), had unequivocally caused global warming, with global surface temperature reaching 1.1oC above 1850-1900 levels between 2011 and 2020. According to the report, human-caused climate change was already affecting many weather and climate extremes in every region across the globe, which had led to widespread adverse impacts and related losses and damages to nature and people."; *ibid*, para 114.

[10] General Comment No. 26 (2022) on land and economic, social and cultural rights, E/C.12/GC/26, 24 January 2023.

[11] P Wapner, 'People, nature, and ethics' (2000) 99 (640) *Current History* 355-60 at 357.

future others, in the 'distant elsewhere'…"[12] Yet, the petitions in *KlimaSeniorinnen* and the co-joined cases[13] brought the manifest materialities of climate and ecological risk into focus. The court noted that Europe is: "the fastest-warming continent in the world.";[14] and acknowledged the consequences of extreme heat and droughts, downpours and catastrophic floods, both for the land itself and through wide-ranging impacts on populations:

> "These events…compromise food and water security, energy security and financial stability, and the health of the general population and of outdoor workers; in turn, this affects social cohesion and stability. In tandem, climate change is impacting terrestrial, freshwater and marine ecosystems."[15]

Critically, the court recognised that climate change respects neither jurisdictional nor abstract-system boundaries. The *interdependence* of land systems, financial systems, ecological systems and social systems means that:

> "Climate risks can cascade from one system or region to another…Cascading climate risks can lead to system-wide challenges affecting whole societies, with vulnerable social groups particularly affected. Examples include mega-droughts leading to water and food insecurity, disruptions of critical infrastructure, and threats to financial markets and stability…."[16]

This cross-system interconnectedness is also critical for 'adaptation policies', noting that inherent dependencies mean that action taken in one area: "…can both support and conflict with other environmental, social and economic policy objectives. Thus, an integrated policy approach considering multiple policy objectives is essential for ensuring efficient adaptation."[17] Finally, the court noted that while the environmental and economic consequences posed are 'future' liabilities, the timeline is not long, and the need for preventative action imminent: "If decisive action is not taken now, most climate risks identified could reach critical or catastrophic levels by the end of this century…economic losses from coastal floods alone could exceed EUR 1 trillion per year."[18] While the direct material consequences of climate change (flooding, drought, forest fires, coastal erosion) are manifest, literally, on the ground, the Grand Chamber also noted the wider impacts across economic and social systems.

The implications of climate change for land law and policy; and the implications of land law and policy in enabling or preventing action to mitigate climate risk; are seismic. Land ownership, and the power of private owners to set agendas for privately owned land, are key determinants of land use, which in turn is critical to

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[12] Graham, 2020, citing M Wackernagel & W Rees, *Our Ecological Footprint: Reducing Human Impact in the Earth* (New Society Publishers, 1996); V Plumwood, 'Shadow places and the politics of dwelling' (2008) 44 *Australian Humanities Review* 139-50, at 139.

[13] *Duarte Agostino v Portugal* and *Carême v France*, discussed further below.

[14] Dissenting judgment, para 6, quoting the European Environment Agency's ("EEA") "European climate risk assessment", published shortly after this judgment was adopted: www.hudoc.echr.coe.int/eng, Executive Summary.

[15] *Ibid.*

[16] *Ibid.*

[17] *Ibid.*

[18] *Ibid.*

environmental impacts and climate change.[19] In this article we examine the implications of climate change litigation for property law and practice, applying the insights and methods of Resilient Property Theory (RPT). RPT was developed to support new types of analyses and approaches required to respond to the real property problems that legislators and litigators are now confronted with.[20] RPT reaches beyond the practices and policies of transactional property law and bilateral litigation to analyse the complex, intersecting issues and stakeholders of contemporary property problems. It reaches beyond linear problem-solving methods that apply narrowing frames to focus on competing (usually bilateral) claims and entitlements, re-locating property problems and abstract rights claims in the material contexts in which they must now be confronted.

The RPT approach resonates with the decision in *KlimaSeniorinnen* in four significant respects. First, it widens the contextual lens, locating land disputes in the material, physical context of the land: resisting the dematerialising effects of abstract conceptions of real property that treat land as if it were any other capital asset. Second, it locates rules, doctrines, theoretical accounts and prescriptions, and appeals to 'property values' (for example, certainty, efficiency) in their normative, jurisdictional, and constitutional contexts. Third, it widens the methodological lens by taking account of a wider range of stakeholders, including individuals (owners, tenants, mortgagors, trespassers, and future generations), collective or group interests (neighborhoods, communities, local markets, social movements); as well as the institutional interests of private/market institutions, legal institutions and the public institutions of the state itself across its multi-layered actors, agencies and institutions (local/city; regional; national; transnational).[21] Fourth, RPT widens the legal lens, reaching beyond the 'private law' realm of property and land law to approach property problem-solving not by isolating, or siloing, questions concerning competing property rights and claims, but by taking account of and endeavouring to reconcile those claims. This requires an analytical framework that is broader than traditional doctrinal property law but that embeds and engages with property law in the wider context of the democratic legal system.[22]

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[19] This interconnectedness has been recognised in the case law of the ECtHR in relation to the right to life (Article 2), the right to private law (Article 8) and the right to property (A1P1): *Öneryildiz v Turkey*, 30 November 2004, Application no. 48939/99.

[20] *See* L Fox O'Mahony & M Roark, *Squatting and the State: Resilient Property in an Age of Crisis* (2022, Cambridge University Press); M Roark and L Fox O'Mahony, 'Real Transactions in the Network Society: Platform Real Estate, Housing Hactivism, and the Re-scaling of Public and Private Power' (2023) 46(4) *Journal of Consumer Policy* 445-463; M Roark and L Fox O'Mahony, 'Comparative Property Law and the Pandemic: Vulnerability Theory and Resilient Property in an Age of Crises' (2022) 82(3) *Louisiana Law Review* 789-856; L Fox O'Mahony and M Roark, 'Property as an Asset of Resilience: Rethinking Ownership, Communities and Exclusion through the Register of Resilience' (2023) 36(4) *International Journal for the Semiotics of Law* 1477-1507; L Fox O'Mahony and M Roark, 'Resilient Cities and the Housing Trust' (2024) 76(4) *Arkansas Law Review* 713-769; L Fox O'Mahony and M Roark, 'Operationalising Progressive Ideas about Property: Resilient Property, Scale and Systemic Compromise' (2024) *Texas A&M Journal of Property Law* 39-80.

[21] *See* L Fox O'Mahony & M Roark, *Squatting and the State: Resilient Property in an Age of Crisis* (Cambridge University Press, 2022).

[22] AJ van der Walt, 'The Modest Systemic Status of Property Rights' (2014) 1 *Journal of Law, Property and Society* 15.

2. *Verein KlimaSeniorinnen Schweiz and Others v Switzerland* (application no. 53600/20), Grand Chamber

On Tuesday, the 9th of April 2024, the Grand Chamber of the European court of Human Rights in Strasbourg delivered judgments in three cases relating to climate change and claimed infringements on human rights: *Carême v France*,[23] *Duarte Agostinho and Others v Portugal and Others*,[24] and *Verein KlimaSeniorinnen v Switzerland*. The outcome of these cases was eagerly awaited by litigators, legislators, scholars, politicians, activists, and concerned citizens alike. The complaints that gave rise to the cases were unconnected and were launched separately in 2020 and 2021. Soon after the applications were received, the chambers of the European court of Human Rights to which the cases had been allocated relinquished jurisdiction in favour of the Grand Chamber. This meant that a single set of 17 judges considered the three cases together in light of the connectedness of the issues raised.

The cases were brought by (a) a French citizen and former mayor of a coastal town, forecast to be flooded by 2040, who sued France under Articles 2 and 8 for its failure to take action to prevent this; (b) six young Portuguese citizens who sued the state of Portugal, and 32 other contracting states, arguing a breach of Articles 2, 3, 8 and 14 of the Convention due to existing and serious future impacts of climate change in relation to heatwaves, wildfires, and smoke from wildfires, which would affect their lives, wellbeing, mental health, and the amenities of their homes; and (c) an association and four Swiss senior citizens suing Switzerland with the claim that the lack of climate action taken by the state infringed their rights to life protected under Article 2 of the Convention and their right to private life protected under Article 8 of the Convention.

These were highly anticipated to be landmark cases, and many other contracting states, NGOs, and researchers responded and delivered documents and evidence to the Grand Chamber to offer alternative perspectives and inform the outcome. In the end, the Swiss case turned out to be the most significant in respect of the Grand Chamber's decisions. In a 260-page judgment including 657 considerations, and a dissenting opinion from one of the 17 judges, the Grand Chamber ruled that the right to private life (protected under Article 8) of the Association of Female Senior Swiss Citizens, also known as *KlimaSeniorinnen*, was infringed and that Switzerland was under a positive obligation to protect this right. The decision raised many issues of constitutional law, private law, public law, and human rights law that are both interesting and highly important, and that will be analysed at length in the coming months and years. In this article we focus on the core issues from a property-environment perspective. Although the cases were not argued on the basis of an infringement to *property rights* as protected under A1P1, we note the implications for Article 8 (respect for home) and the strong link across the case law of the court

[23] Application no. 7189/21.
[24] Application no. 39371/20.

between Articles 2 (right to life), 8 (family, home and private life) and A1P1 (right to property).[25]

(i) Procedural questions: Standing and Process

KlimaSeniorinnen raised a fundamental question concerning which rights, and for whom, the Convention protects. One dimension of this question concerned whether the protections extended under the Convention are limited to individual rights for individual complainants who can demonstrate that they have suffered specific harms; or whether its remit extends to potential infringements affecting groups, including very large groups of people. Prior to the Grand Chamber judgment in *KlimaSeniorinnen*, the range of claims that could be brought under the Convention were restricted to individuals who had been directly harmed as a result of the infringement of a Convention right: so meeting the standard of 'real and serious risk' to be considered a victim under Article 34 of the Convention.[26] In respect of Article 2 (right to life), this must constitute a 'real and imminent' risk to life; for Article 8, the threshold is an 'actual interference' with the right to private and family life. Although the court has previously recognised a limited category of 'indirect victims' under Article 34,[27] the nature of the 'victim status' asserted in these climate change

[25] Since large parts of our lives and family life are situated on, and dependent on, land—most notably homes—the ECtHR has often considered these articles together and treated the three rights in conjunction. On the link between Articles 2, 8 and A1P1 see *Öneryldiz v Turkey*, 30 November 2004, Application no. 48939/99. The Grand Chamber cited *Neubauer and Others v Federal Republic of Germany*, Order of the First Senate of 24 March 2021, 1 BvR 2656/18 DE:BVerfG:2021:rs20210324.1bvr265618, in which the German Federal Constitutional court ("the GFCC") examined four constitutional complaints directed against certain provisions of the Federal Climate Change Act of 12 December 2019 (Bundes-Klimaschutzgesetz) and against the State's failure to take further measures to reduce GHG emissions. The applicants grounded their claims on the right to life and integrity (Article 2 § 2, first sentence, of the Basic Law), the right to property and the right of inheritance (Article 14 § 1 of the Basic Law), as well as on a fundamental right to a future consistent with human dignity and a fundamental right to an ecological minimum standard of living. The GFCC held that the provisions of the Federal Climate Change Act were incompatible with fundamental rights in so far as they lacked sufficient specifications for further emission reductions from 2031 onwards. The Grand Chamber in *KlimaSeniorinnen* noted that, in the environmental context, the court has recognised the existence of a civil right where the domestic law recognises an individual right to environmental protection where the rights to life, to physical integrity and of property are at stake (see, for instance, *Zander v. Sweden*, 25 November 1993, § 24, Series A no. 279-B; *Balmer-Schafroth and Others v Switzerland*, 26 August 1997, §§ 33-34; *Athanassoglou and Others v Switzerland* [GC], no. 27644/95, § 44; and *Taşkın and Others v Turkey* Application No 46117/99, §§ 132-33) (see *KlimaSeniorinnen*, GC, para 600). As regards associations, in *Gorraiz Lizarraga and Others v Spain* (no. 62543/00, ECHR 2004-III, §§ 45-47), Article 6 was found to apply with respect to proceedings intended to defend certain specific interests of the association's members, namely their lifestyle and properties. The court noted that the applicant association had complained of a direct and specific threat hanging over its members' personal assets and lifestyles, which, without a doubt, had an economic and civil dimension. While the relevant domestic proceedings had "ostensibly [borne] the hallmark of public-law proceedings", the final outcome of the proceedings had nonetheless been decisive for the applicants' complaints of interference with their property and lifestyles. Thus, the court found that the proceedings as a whole could be considered to concern the civil rights of the members of the association. (*KlimaSeniorinnen*, GC, para 601).

[26] *Marckx v Belgium* (1979) 2 EHRR 330, *Lambert and Others v France* [GC], no. 46043/14, § 89, ECHR 2015.

[27] Article 34 provides that the court may receive applications from any person claiming to be the victim of a violation of a convention right, but does not define 'victim'. The court has previously established that relatives of a deceased direct victim may be 'indirect victims' of an Article 2 violation: *Varnava and Others v Turkey* [GC], 2009, Application 16064/90, 16065/90, 16066/90, 16068/90, 16069/90, 16070/90, 16071/90, 16072/90, 16073/90, s112; *Lambert and Others v France* [GC], 2015, Application 46043/14, s115; although Article 8 falls within the category of 'non-transferable' rights: *see Sanles Sanles v Spain* 2000, Application 48335/99.

cases was much more challenging:[28] reflecting the real complexities of attributing responsibility and harm in respect of climate change.

While the judgments took some guidance from ECtHR case law on environmental liability, the Grand Chamber recognised that the cases raised unprecedented issues.[29] Climate change is a complex global problem, and this renders it categorically distinct from single-source local environmental issues.[30] Echoing the foundations of RPT in wicked problem theory, the court recognised that environmental, ecological and climate change are 'wicked problems':[31] large-scale, social, economic, and political problems embedded in complex causal webs of interlinking variables and multiple stakeholders. They are multi-scalar, system-level problems that affect individuals, groups and populations. Attributions of responsibility are disputed, which makes the question of fixing accountability or liability particularly challenging. Tackling wicked problems requires analytical frameworks, approaches and methods, and advocacy suited to managing this scale of complexity.[32] The RPT paradigm seeks to respond to this challenge.

In *KlimaSeniorinnen*, the Grand Chamber took a significant step in developing criteria for the court to apply in determining when it would admit applications seeking to hold states to account to prevent substantive harm linked to climate change. The court held that climate change cases could be brought by individuals, or groups that represent a population of individuals, so long as the requirements of the relevant provisions (such as real and imminent risks under Article 2 and actual interferences under article 8) were fulfilled.[33] In this case, the application was brought by four Swiss senior citizens who claimed individually, and also through an association they belonged to. In a significant departure for the court, the decision to admit a claim brought by an association appears to recognise the standing of an *actio popularis* claim.[34] In paragraphs 489-503, the court developed criteria that associations are required to fulfil to be able to claim an infringement of rights under the Convention. These stated that an association must be:

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[28] Paragraph 465-472.
[29] Paragraph 414-415.
[30] Paragraph 424.
[31] *See* e.g., RM Bratspies, Sustainability: Can Law Meet the Challenge? 34 *Suffolk Transnat'l L. Rev.* 283, 292 (2011) ("Sustainability is a particularly wicked problem, in part because of the lack of an institutional framework capable of developing, implementing, and coordinating the responses necessary to address the problem."); SJ Morath, The Farm Bill: A Wicked Problem Seeking a Systematic Solution, 25 *Duke Envtl. L. & Pol'y F.* 389, 402 (2015) ("Because farm bill stakeholders have diverse social, ethical, political, and legal motivations and short-term goals, the long-term goal of reforming our farm bill and our food system can be classified as a wicked problem."); DL Feldman & H Ingram, 'Multiple Ways of Knowing Water Resources: Enhancing the Status of Water Ethics', 7 *Santa Clara J. Int'l L.* 1 (2009); RM Bratspies, 'The Climate for Human Rights', 72 *U. Miami L. Rev.* 308, 317 (2018) ("The management of water resources can be summed up as a 'wicked problem' characterized by multiple conflicting, non-commensurate perspectives.")
[32] *See* L Fox O'Mahony & M Roark, *Squatting and the State: Resilient Property in an Age of Crisis* (Cambridge University Press, 2024), especially pp209-216.
[33] Paragraph 538-540.
[34] An *actio popularis* is an action brought before the court to protect the rights of the general public.

> "(a) lawfully established in the jurisdiction concerned or have standing to act there;
> (b) able to demonstrate that it pursues a dedicated purpose in accordance with its statutory objectives in the defence of the human rights of its members or other affected individuals within the jurisdiction concerned, whether limited to or including *collective action for the protection of those rights against the threats arising from climate change*; and
> (c) able to demonstrate that it can be regarded as genuinely qualified and representative to act *on behalf of members or other affected individuals within the jurisdiction who are subject to specific threats or adverse effects of climate change on their lives, health or well-being* as protected under the Convention."[35]

This formulation allowed for the possibility that, even though the members of the association themselves are not all, necessarily, direct victims, the association's claim would be admitted *because of the special nature of the problem that climate change poses*. This widening of the procedural gateway to allow collective action for the protection of rights against the threats arising from climate change has significant implications for a range of potential claims. By recognising climate change as a category of threat that impacts not just on the individual scale but at the scale of groups or populations, the court's approach 'scaled-up' the category of subjects who can bring claims of violation of rights due to climate change under the Convention.

A second significant departure in *KlimaSeniorinnen* concerned the court's approach to the time scale on which harms resulting from climate change are manifest. Recognising, again, that climate change produces a distinct form of harm, the court noted that: "in the specific context of climate change, intergenerational burden-sharing assumes particular importance both in regard to the different generations of those currently living and in regard to future generations."[36] This widening of the scope of consideration to include the harmful impacts of climate change for future generations recognised the material reality that land has a 'memory':[37] and that decisions taken today in respect of (unsustainable) land use, environmental protection or degradation and ecological loss create costs for our future selves, and for future generations. The court noted the formal scope of the legal obligations that States carry under the Convention, which: "…extend to those individuals currently alive who, at a given time, fall within the jurisdiction of a given Contracting Party…"[38] However, it also recognised "…the prospect of aggravating consequences arising for future generations", noting that: "…it is clear that future generations are likely to bear an increasingly severe burden of the consequences of present failures and omissions to combat climate change…and that, at the same

[35] Paragraph 502, emphasis added.
[36] Paragraph 420.
[37] Pottage described the importance of memory in English common law land titles and conveyancing: A Pottage, 'The Measure of Land' (1994) 57 Modern Law Review 361; *see also* E Peñalver, 'Property's Memories' (2011) 80 *Fordham L Rev* 1071.
[38] Para 420.

time, they have no possibility of participating in the relevant current decision-making processes."[39]

The mechanism adopted to extend the scope of the court's consideration to include harmful impacts on future generations was through reference to the obligations that Switzerland had undertaken as a signatory to the United Nations Framework Convention on Climate Change (UNFCCC), the parent treaty to the Kyoto and Paris Climate Accords. The court recognised that:

> "[b]y their commitment to the UNFCCC, the States Parties have undertaken the obligation to protect the climate system for the benefit of present and future generations of humankind (…Article 3 of the UNFCCC). This obligation must be viewed in the light of the already existing harmful impacts of climate change, as well as the urgency of the situation and the risk of irreversible harm posed by climate change. In the present context, having regard to the prospect of aggravating consequences arising for future generations, the intergenerational perspective underscores the risk inherent in the relevant political decision-making processes, namely that short-term interests and concerns may come to prevail over, and at the expense of, pressing needs for sustainable policy-making, rendering that risk particularly serious and adding justification for the possibility of judicial review."[40]

Through these two moves: (1) the extension of standing to representative groups and (2) the incorporation of State's obligations under other treaties; the Grand Chamber established the special nature of climate change, recognised the particular challenges that climate change poses for current and future victims, and provided a way forward to protect collective, as well as individual, rights under the European Convention on Human Rights.

While *KlimaSeniorinnen* met the expanded remit for admissibility, *Duarte Agostino v Portugal* and *Carême v France* were dismissed on procedural grounds. The judgments addressed a range of procedural points, including the fact that the six Portuguese citizens applied directly to the court without going through national proceedings in Portugal first and without launching any legal proceedings in the other 33 contracting states they included in their application. This raised questions about whether claims can be brought to the court without exhausting national remedies as well as the question of extraterritorial jurisdiction. In the Portuguese case, *Duarte Agostino*, the court held that no extraterritorial jurisdiction existed and that as the national procedures in all of these countries had not been followed first, the European court would not deliver judgment. Moreover, as none of the young citizens who brought the case had themselves suffered damage, they did not satisfy the requirements of 'victim' under the Convention.

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[39] Para 420.
[40] Paragraph 420.

The French case, *Carême*, was dismissed on the ground that there was no evidence that Mr. Carême still lived in the coastal town of *Grande-Synthe*; he had moved to Brussels to serve as a member of the European Parliament.[41] Furthermore, the court confirmed that municipalities cannot be 'victims' under Article 34 of the Convention because they are, themselves, government bodies. Here too, the action was based on the anticipation of damage due to climate change—the likelihood of which was not contested in the case—but which the Grand Chamber held was too remote and uncertain to constitute a breach of Convention rights. This was distinguished from *KlimaSeniorinnen*, in which the Grand Chamber held that the association could advance its claim because the purpose of the association was to represent the interests of senior citizens and that there was scientific evidence that senior citizens are more adversely affected by heat waves caused by climate change than other citizens. The association was therefore awarded standing to represent victims, such that the court could examine the substantive questions of a violation of Article 2 (the right to life) and Article 8 (the right to private life).

(b) Substantive questions: Breach of Article 2 and Article 8?

Having satisfied the threshold of standing, the Grand Chamber proceeded to consider the substantive question of interferences with Convention rights. First, the claim of infringement to the right to life under Article 2 was dismissed for lack of a 'real and imminent risk'. Although their lives were not in immediate peril, the Grand Chamber held that there was an 'actual interference' with the right to private life protected under Article 8, that constituted an unjustified infringement of this right under the Convention. This distinction between the necessary 'imminence' of threats to life for the purposes of Article 2, 'actual interference' with private life, and the temporal scale of climate risk resonates with Castells' account of temporality in the networked society. Castells distinguished between 'clock time' (or 'industrial time', characterised by the chronological sequencing of events, measured to a predetermined institutionally measured schedule), 'timeless time' (the elimination of sequencing and compression of processes to enable instantaneity) and 'glacial time' (the measure of long-term, evolutionary relations between humans and nature).[42]

A critical question for land law and sustainability concerns the mediation of 'timeless time' through digitalisation and technology-enabled property systems on the one hand, and the 'glacial time' of ecological disaster on the other. Castells observed that: "…environmentalism, is predicated precisely on the notion that alteration of basic balances in the planet, and in the universe, may, *over time*, undo a delicate ecological equilibrium, with catastrophic consequences."[43] Castells explained that:

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[41] During the oral pleadings the representative of Mr. Carême, in response to a question by one of the judges, made the point that had M. Carême still lived in *Grande-Synthe*, the application would have included a claim based on A1P1.

[42] M Castells, *The Power of Identity* (2nd Edn, 2010), p183.

[43] *Ibid.*

> "In very direct, personal terms, glacial time means to measure our life by the life of our children, and of the children of the children of our children. Thus, managing our lives and institutions for them, as much as for us…To propose sustainable development as intergenerational solidarity brings together healthy selfishness and systemic thinking in an evolutionary perspective."[44]

The distinction made between environmental harms that 'imminently' threaten life itself (Article 2) or present a material risk to 'ways of life' in the foreseeable future (Article 8), provides an important reminder of the incommensurability of these 'alternative temporalities' and signals to the need for further work to develop frameworks and methodologies capable of supporting future litigation and policy endeavours.

The outcome in *KlimaSeniorinnen* was a broadly formulated decision that recognised infringement of the right to private life but stopped short of interfering with the contracting state's wide margin of appreciation. The Grand Chamber emphasised the role of nation-state governments in making policies to protect their citizens, and in making political choices about how best to achieve this. In doing so, the court upheld the principle of separation of powers and remained faithful to the principle of subsidiarity. However, the court also indicated that it will monitor the steps taken by governments within this margin of appreciation and, if rights protected under the Convention are affected and states are not doing enough to mitigate the effects of climate change, it will 'interfere' by finding a breach of Convention rights.

The Grand Chamber concluded that Article 8 of the Convention was infringed and Switzerland had a positive obligation to take action. The court did not make an award of damages, as the association did not seek damages; the application asked only for the finding of a positive obligation, and recognition that the actions taken to date by the Swiss government were not sufficient to meet its obligations under the Convention. With that, the court was not, therefore, asked to step directly into the substantive question and was able to fulfil the request made by the applicant association by confirming the existence of a positive state obligation. The matter was remitted back to the Swiss state to determine how to meet its positive obligation, within the margin of appreciation, but under the scrutiny of the ECtHR.

3. *KlimaSeniorinnen*, *Carême*, and *Duarte Agostinho*: A Resilient Property analysis

The decision in *KlimaSeniorinnen* has important implications for property lawyers with respect to the extension of standing in climate cases and the evolving jurisprudence on Article 8, as well as broader implications for the whole of the Convention in respect of land use, sustainability, and the litigation framework. By carving out a specific category of climate change cases, and adapting its framework for

[44] *Ibid*, p184.

admissibility and standing, the court has recognised the adverse impact of climate change on people's "lives, health or wellbeing" as a system-level problem.[45] In a significant departure from previous jurisprudence, the Grand Chamber framed the issues before the court through a lens of collective (rather than individual) and potential (as well as actual) harms. While the case was brought under Articles 2 and 8 (in relation to private life), the approach has implications for Article 8 (in relation to home) and A1P1 (the right to property). The court unanimously recognised climate change as an existential threat[46] and signalled its readiness to act by developing a special procedural basis for consideration of climate change harms on communities or populations—including, by cross-referencing rights-protection under the Convention, other international obligations undertaken by states, and democratic processes for state action, impacts of future generations.

The special treatment of climate change as a new and distinctive category of case, with a wider remit for admissible claims, is an important point of departure in the court's jurisprudence. It has opened-up new possibilities for future claims to be brought to the court, based on the effects of the climate crisis in causing forest fires, droughts and floods that could constitute sufficiently specific damage to lead to a finding of infringement under the Convention. The court emphasised the severity of the: "…triple planetary crisis of pollution, climate change and loss of biodiversity",[47] the urgency of action to mitigate harms resulting from climate change and the inter-generational nature of climate injustice.[48] The Grand Chamber framed the questions before the court, and the scope of protection under the Convention, in terms of the *material impacts* of environmental and ecological harm, and the *range of stakeholders* whose Convention rights may be breached as a result of these harms.

In this section, we apply the analytical toolkit of Resilient Property Theory (RPT) to consider the implications of the decision in *KlimaSeniorinnen* for property law. RPT offers techniques for engaging with—while not eliding or transcending—the messiness of large-scale, complex, wicked property problems. Developed as an analytical and methodological toolkit for complex 'wicked' problem-solving, RPT looks beyond the transactional relationships of private property law and litigation to consider the implications of property law and policy for a range of stakeholders. These include individual stakeholders (owners, tenants, mortgagors, trespassers, citizens), aggregated stakeholder groups (neighbourhoods, associations,

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[45] *See* L Fox O'Mahony & M Roark, *Squatting and the State: Resilient Property in an Age of Crisis* (2022), pp3-4, 209-216.
[46] Dissenting Judge Eicke emphasised that he recognised the scale of the threat of anthropogenic climate change and did not see this in 'any less stark terms' but dissented in relation to: "…the role [the] court can play at this point in time in identifying and taking the steps necessary – and frequently already overdue – to ensure the survival of the planet."; para 5 at 233.
[47] Para 200, at 92.
[48] *See* for example, E Page, 'Intergenerational Justice and Climate Change' (1999) 47 *Political Studies* 53; B Almassi, 'Climate Change and the Need for Intergenerational Reparative Justice' (2017) 30 *Journal of Agricultural and Environmental Ethics* 199; T Skillington, *Climate Change and Intergenerational Justice* (2019); D Lindvall, 'Can democracy safeguard the rights of future generations? Climate change and intergenerational injustice' in DW Orr (ed), *Democracy in a Hotter Time: Climate Change and Democratic Transformation* (2023, MIT Press).

communities) and institutional stakeholders (public/state, private/market, governmental and legal institutions). RPT applies techniques from scale theory to understand how the needs and interests of these stakeholders interact across three distinct registers of scale: the *rhetorical* or narrative scale on which the nature of property and property values are debated and on which political statements about the nature of property rights are made; the *jurisdictional* scale of property rights and entitlements, which is embedded in the wider democratic legal order;[49] the *material* scale of property—and specifically land—as a physical, material resource. These registers interact with 'property' and 'time',[50] defining and shaping how we interact with land resources. In this section, we draw on these registers of scale to consider the implications of *KlimaSeniorinnen* for future developments in land law.

(a) Widening the contextual lens: the object of property, the abstract nature of private property rights and the material impacts of climate change

Across the globe, the material destabilisation of land, environments, and ecology—to which abstract property rights and entitlements relate—poses urgent questions for property legislators, litigators, and scholars, as well as challenging some of the taken-for-granted assumptions and rhetorical tropes that characterised twentieth century property norms and debates. The escalation of *KlimaSeniorinnen* to the Grand Chamber of the ECHR highlighted the urgent need for property lawyers to address the incongruities between *abstract* private property rights[51] (which carry a strong *rhetorical* weight in narratives about ownership and private property; and were given *hierarchical* effect in English law by the Law of Property Act 1925 and Land Registration Act 2002) and the realities of climate change on *material* scale.[52] Climate change litigation requires property lawyers to recognise the foundational schism that resulted from the policy decision to treat land like 'any other asset', substituting abstract concepts of value in place of the material physicality of land,[53] which is revealed and rendered unavoidable by the environmental, sustainability and ecological crises accelerated by unsustainable land use practices.[54]

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[49] In this respect, it operationalises van der Walt's account of the 'modest systemic status' of property rights within the wider frame of constitutional rights than comprises the democratic legal order: AJ van der Walt, 'The Modest Systemic Status of Property Rights' (2014) 1 *J L Prop & Society* 1.

[50] Birks described 'time' as one of the five 'keys' to land law: P Birks, 'Before we begin: five keys to land law' in S Bright & J Dewar (eds), *Land Law: Themes and Perspectives* (OUP, 1998), pp457-486.

[51] *See* WN Hohfeld, 'Some fundamental legal conceptions as applied in legal reasoning' (1913) 23 *Yale Law Journal* 16-59; KJ Vandevelde, 'The new property of the nineteenth century: the development of the modern concept of property' (1980) 29(2) *Buffalo Law Review* 325-67; D Lametti, 'The concept of property relations through objects of social wealth' (2003) 53(4) *Toronto Law Journal* 325-78.

[52] CA Arnold, 'The reconstitution of property: property as a web of interests' (2002) 26(2) *Harvard Environmental Law Review* 281-364; D Grinlinton, 'Property rights and the environment' (1996) 4 *Australian Property Law Journal* 41-62; N Graham, *Lawscape: Property, Environment, Law* (Routledge, 2011).

[53] *See* D Cowan, L Fox O'Mahony & N Cobb, *Great Debates in Land Law* (3rd Edn, 2023), especially Chapters Three and Five; also N Graham, 'Dephysicalised Property and Shadow Lands' in R Bartel & J Carter (eds) *Handbook on Law, Space and Place* (Edward Elgar, 2020).

[54] M Wackernagel & W Rees, *Our Ecological Footprint: Reducing Human Impact in the Earth* (New Society Publishers, 1996).

The misalignment between the material reality of land as the object of property rights, and the abstraction of those rights under property law's jurisdiction was embedded in England's Law of Property Act 1925 (LPA 1925). The LPA 1925 aimed to: "assimilate the law of real and personal estate", treating land like "any other asset".[55] This shift, from 'land law' to 'property law' was extended by the Land Registration Act 2002 (LRA 2002), which aligned English property law (including the law governing property in land) with the late twentieth-century abstractions of financialisation.[56] The scaling-up of de-materialisation under the LRA 2002[57] detached questions of abstract rights and entitlements from the material realities of land use and sustainability. The Land Registration Act 2002 explicitly set out to 'dematerialize' the basis of entitlement to interests in land. The Joint Report of the Law Commission and Land Registry explained that the Act was intended to: "…alter the way in which title to land is perceived.";[58] based on the claim of:

> "…wide support, both within the property industry and from many legal practitioners, for the introduction of a system dealing with land in de-materialized form. Indeed, such a system has come to be regarded as inevitable…"[59]

This was linked to the objective of the Bill: "that the register should be a complete an accurate reflection of the state of the title of the land at any given time…";[60] an objective that was recognized as: "also requir[ing] a change in attitude…[t]hese changes will necessarily alter the perception of title to land. It will be the fact of registration and registration alone that confers title."[61]

The unreality of a perception of title that eschews the materiality of land was reflected in *Carême v France*,[62] which the Grand Chamber elected to hear with *KlimaSeniorinnen v Switzerland* and *Duarte Agostinho v Portugal*, and which concerned the consequences of climate change, more frequent rain and rising sea levels in causing coastal erosion along the English Channel, creating a 'very high level of exposure' to climate risks.[63] The Grand Chamber recognised that:

> "…owing to its proximity to the coast and the physical consequences of its territory, the municipality was exposed in the medium term to high and increased risks of flooding and an increase in episodes of severe drought…while these concrete consequences of climate change were likely to

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[55] For a detailed discussion of the Law of Property Act 1925, see D Cowan, L Fox O'Mahony & N Cobb, *Great Debates in Land Law* (3rd Edn, 2023), Chapter Three.

[56] *See* L Fox O'Mahony & M Roark, *Squatting and the State: Resilient Property in an Age of Crisis* (Cambridge University Press, 2022), pp191-190 (on the changing nature of property and housing markets), pp190-194 (on land use and finance) and pp262-271 (on the changing nature of 'ownership' under financialisation).

[57] L Fox O'Mahony & M Roark, 'Speculation, squatting and sustainability' in C Bevan (ed) *Research Handbook on Property Law and Theory* (2024, Edward Elgar).

[58] Law Commission & HM Land Registry, *Land Registration for the Twenty-First Century: A Consultative Document*, Law Com No 254 (HMSO, 1998), para 1.1.

[59] Para 1.2.

[60] Para 1.5.

[61] Para 1.9, 1.10.

[62] Application no. 7189/21.

[63] Grand Chamber judgment, para 78.

> have their full effect on the territory of the municipality only by 2030 or 2040, 'their inevitability' in the absence of effective measures taken quickly to prevent the causes and in view of the time frame for public policy action in this area, was such as to justify the need to 'act without delay'."[64]

The Grand Chamber ultimately dismissed Carême's claim on the procedural ground that, as a former resident and Mayor of the municipality but now living in Brussels, he did not have sufficient ongoing connection to the municipality to demonstrate a sufficiently certain ongoing interest in the area for his claim to be admissible.[65] The complex question of 'victim standing' for future events was illustrated in the Grand Chamber's observation that: "there was no indication as to where the applicant's residence would be in the years to come, let alone in twenty years or more, so that his interest appeared to be affected in too uncertain a manner".[66] Consequently, while the court accepted the scale of the risk that the town of *Grande-Synthe* is facing as a result of climate change, Carême had not demonstrated a "direct and sufficiently serious interference with *his* rights protected by Article 8."[67] Because he no longer owned or occupied a home in municipality, the court held that he lacked sufficient personal connection to the area. His standing as a concerned French citizen was not sufficient to underpin a claim under Article 8.

While Carême's case was brought under Article 8 (respect for private and family life, home), the material impacts of physical changes resulting from climate change also impact on questions of *ownership*. Lovett's analysis of the implications of Louisiana's changing coastline in eroding the *ownership* (as well as the use, and value) of submerged land offers a cautionary reminder that, even when abstract property rights systems look away from the material impacts of land use, those impacts do not cease to exist but continue to produce risks of erosion—both of the land itself and, in some cases, of the abstract rights and financialised value represented within the property system.[68] The French case—concerning coastal erosion on the Normandy coast—highlights the proximity of this risk for English landowners: geographically and temporally. In 2022, the British Geological Survey identified 30,000 properties within 25 metres of potentially highly susceptible, low-lying coastal areas that are already vulnerable to inundation; and the Committee on Climate Change has identified 520,000 properties in England alone, including 370,000 homes, that are in areas at future risk of damage from coastal flooding; with a worst-

[64] Para 78.
[65] Para 79.
[66] Para 79.
[67] *Carême v France*, §83.
[68] J Lovett, 'Ownership of Submerged Land on the Louisiana Coast: Resolving the Dual-Claimed Land Dilemma' (2024) 84(3) *Louisiana Law Review* 905. Lovett examined the historic doctrines of avulsion, accretion and diluvion, which provide for re-alignment of abstract title and material reality when water-land boundaries change, and which draw on justifications that resonate with the historic justifications for the doctrine of adverse possession: fairness, justice and social utility based on land use, and public policy considerations.

case scenario of up to one million properties at potential risk from inundation for 2050; 1.25 million by the 2080s and 1.35 million by 2100.[69]

The decisions in *KlimaSeniorinnen*, *Carême* and *Duarte Agostinho* provide a cautionary reminder that the abstraction of land law systems from the materiality of land use is profoundly and fundamentally tested by climate change. These decisions should also be read as a cautionary reminder of the limitations of legal paradigms that privilege abstract rights and concepts—and the certainty, clarity, and coherence that abstract models appear to provide—over the material realities of land use and the physical asset in land that constitutes the real substance of title. Simplifying the transactional business of conveyancing by reducing interests in land to the currency of de-materialised entitlements avoids 'messy and controversial discussions about the social consequences of the rules of private law'.[70] *KlimaSeniorinnen*, *Carême*, and other recent climate change cases highlight the unsustainability of these strategies, in the face of material, ecological, and environmental harms. As private property rights in land are confronted with the material realities of environmental unsustainability and climate change, the unsustainability of the abstract approach is likely to generate further litigation. *Contra* to the fundamental belief that land is (the only) *permanent* property, the effects of climate change are, in some places, quite literally, changing the land beneath our feet: changing viable options for land use and disrupting property rights in land that is affected by the material impacts of climate change,[71] as well as eroding land *value* in unsustainable communities and cities.[72]

In 2010 England's Government Office for Science published *Land Use Futures: Making the most of land in the 21st century*, which argued for the 're-materialization' of land values, paying attention to different levels of governance, spatial and geographic differences, and trends in land use sectors: built environment, housing and commercial use, infrastructure, natural resources, agriculture, conservation and leisure.[73] It recognized that:

> "[h]ow [land] is used and managed affects everyone's prosperity and quality of life…the productive capacity of land underpins the whole economy…Land

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[69] M Rowe, 'The rising threat of UK coastal erosion', *Geographical* (14 September 2022), The rising threat of UK coastal erosion - Geographical.

[70] H Collins, 'Utility and Rights in Common Law Reasoning: Rebalancing Private Law through Constitutionalization' (2007) 30 *Dalhousie LJ* 1, 6; with 'appeals to coherence, consistency, and fidelity to principle'; and a putative separation between 'law/doctrine' (viewed as a legitimate space for legal analysis and debate) and 'politics/policy' (deemed outside the realm of private law).

[71] John Lovett, *Ownership of Submerged Land on the Louisiana Coast: Resolving the Dual-Claimed Land Dilemma* (2024) 84(3) *Louisiana Law Review* 905.

[72] Detroit and other US cities after widescale foreclosures; rural communities that become unsustainable, see Jessica Shoemaker and Nicole Graham, 'Property Rights and Power across Rural Landscapes' in Margaret Davies, Lee Godden, and Nicole Graham (eds.), *The Routledge Handbook of Property, Law and Society* (New York: Routledge, 2023); on abandoned or unusable land. See Cal Flyn, *Islands of Abandonment. Life in the Post-Human Landscape* (London: William Collins, 2021).

[73] "Crucially [the report stated], the analysis takes an even-handed view—it does not judge one type of land use to be more or less important than another."; *Land Use Futures* (2010).

also plays a critical role in providing services that are vital for the physical wellbeing of the population."

The dematerialisation of land enabled an illusion of transactional (and perhaps conceptual) simplicity,[74] although its impact is waning in some contexts,[75] and was never really convincing in others.[76] The reduction of material landscapes to abstract rights: "masks the complex, dynamic and networked nature of peopled landscapes, allowing landholders to disown the adverse consequences of their proprietorship." Nicole Graham described the 'dephysicalisation of property'[77] as: "…one of the most significant contributions of modern law to anthropogenic change. It is also one of the greatest obstacles to the objectives and implementation of environmental law."[78] In the de-materialized, data-driven world realm of the "network society," land transactions are financialized, depersonalized, and increasingly remote from the materiality of land use. The decision in *KlimaSeniorinnin* should be recognised—by property lawyers, scholars, litigators and policy-makers—as a tipping point that requires reflection and responsiveness in the development of our property thinking with respect to the de-materialised abstraction of property rights on the rhetorical/jurisdictional scales, and the re-materialisation of land on the physical scale.

(b) Widening the methodological lens: The subject of property, standing and stakeholders

Alongside the impact of climate change in recalibrating (abstract) jurisdictional conceptions of private property rights to re-align the *object* of property law with the (material) physical realities of land, there are parallel implications for the *subject* of property. Graham described this as a two-sided process, whereby the dematerialisation of the land conceals the subjects of property by: "…facilitat[ing] a powerful cultural fantasy that whatever externalities there may be, their cost will be borne by anonymous and future others, in the 'distant elsewhere'…"[79] Paul Wapner described the implications of dematerialisation on the human subjects of property as: "discounting the lives of those who live in resource-supply areas or who find themselves on the receiving end of the industrial waste-stream";[80] and "generations

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[74] B Rudden, 'Things as Thing and Things as Wealth' (1994) 14 *Oxford Journal of Legal Studies* 81.

[75] H Smith, 'Property as the Law of Things' (2012) 125(7) *Harvard Law Review* 1691.

[76] D Lametti, 'The Concept of Property: Relations through Objects of Social Wealth' (2003) 53(4) *University of Toronto Law Journal* 325; KJ Gray & PD Symes, *Real Property and Real Property* (1981, Butterworths).

[77] According to Graham: "Dephysicalised property is a theoretical model used to foreground the abstract legal right as the true object and value of a property relation…": N Graham, 'Dephysicalised Property and Shadow Lands' in R Bartel & J Carter (eds) *Handbook on Law, Space and Place* (Edward Elgar, 2020) (intro).

[78] *Ibid.* Graham argued that dephysicalised property: "…underpins a paradigm of law that is not materially viable beyond the early modern worldview of abundance and plenty. Taking into account environmental scarcity and global conflict, it is no longer possible to rationally defend and reproduce the model of dephysicalised property in the research, teaching and practice of property law." *See also*, M Davies, 'Can property be justified in an entangled world?' (2020) 17 *Globalizations* 1104-1117.

[79] Graham, 2020, citing M Wackernagel & W Rees, *Our Ecological Footprint: Reducing Human Impact in the Earth* (New Society Publishers, 1996); V Plumwood, 'Shadow places and the politics of dwelling' (2008) 44 *Australian Humanities Review* 139-50, at 139.

[80] P Wapner, 'People, nature, and ethics' (2000) 99 (640) *Current History* 355-60 at 357.

yet to be born."[81] In addition, as we noted in section 2(b) above, *KlimaSeniorinnen* and *Carême* highlight the impacts of present action on climate change for our future selves.

The court in *KlimaSeniorinnen* recognised that, as well as defying neat categories of cause and effect, attribution of responsibility/liability and containment of harms, climate change is temporally scaled. The Grand Chamber noted that:

> "…combating climate change, and halting it, does not depend on the adoption of specific localised or single-sector measures. Climate change is a polycentric issue. Decarbonisation of the economies and ways of life can only be achieved through a comprehensive and profound transformation in various sectors. Such "green transitions" necessarily require a very complex and wide-ranging set of coordinated actions, policies and investments involving both the public and the private sectors. Individuals themselves will be called upon to assume a share of responsibilities and burdens as well. Therefore, policies to combat climate change inevitably involve issues of social accommodation and intergenerational burden-sharing, both in regard to different generations of those currently living and in regard to future generations."[82]

The decision in *Carême* highlighted the difficulties inherent to implementing an approach that takes account of future subjectivity. Nevertheless, by recognising the principle that our future selves, and future generations, are legitimate stakeholders in decisions that are taken now to mitigate climate change, the court has taken a seismic step. Future work to operationalise a widening conception of the legal subject of property: from current owner/occupier individuals to communities of individuals (the association in *KlimaSeniorinnen*) and future generations; can be advanced using RPT methodology which offers structuring methods, drawing on actor-network theory, for taking account of competing networks of individual,[83] aggregated[84] and institutional[85] stakeholders.

These categories overlap: for example, individual owners may combine their stakeholder interests in property outcomes in groups, such as neighbourhoods or private interest lobbying federations; citizens may aggregate their claims in advocacy or activist groups. Institutional claims are embedded in the political processes through which individual interest holders (the electorate) cluster around shared agendas. When judicial processes exclude categories of stakeholder from bringing claims before the court through narrow rules of standing, they are denied the opportunity to articulate their stake, or to seek to hold governments to account. The decision in *KlimaSeniorinnen* is consistent with an RPT approach, inasmuch as it

[81] *Ibid*, p359, cited in Graham, 2020.
[82] Para 419.
[83] For example, owners, neighbours, investors, mortgagors, trespasser, citizens.
[84] For example, neighbourhoods, markets, cities, communities.
[85] For example, property systems, economic systems, housing systems, ecological systems, and the institutions of governance.

admitted the association of senior citizens as a party before the court, allowing the assertion of their resilience needs as a representative population of concerned citizens. In both *Duarte Agostinho* and *Carême*, the litigants were individuals, and this was a critical factor in the denial of their standing. An alternative approach would have been for the citizens of Grande-Synthe to form an association to make the same claim, potentially including arguments under A1P1 that their right to property was also at risk. Similarly, the Portuguese young people might have joined forces to create an association that would bring the claim on their behalf. The action brought in *Duarte Agostinho* also fell at the hurdle of failing to exhaust domestic remedies; and attempted to reach beyond merely holding their *own* government to account by suing Portugal *and* 32 other states. This reflects the unique nature of climate change as a wicked problem that does not respect national borders; which remains irreconcilable with the realities of legal jurisdiction, even for an international court.

The fundamental nature of these claims sits in stark contrast to the idea of transactional private property law as 'legal formalizing': responding to the assumed preferences of private parties for managing their own transactions and affairs. The '*privateness'* of property law in this mode is: "…premised on the lawmaker's indifference as to which of number of alternative relationships the parties decide to enter."[86] This is supported by practices of 'coherence lawyering', which endeavour to avoid "messy and controversial discussions about the social consequences of the rules of private law"[87] through "appeals to coherence, consistency, and fidelity to principle...";[88] but which are ill-equipped to respond to the challenges of climate change and its effects on ownership and land. These paradigms purport to govern property relations through abstract principles, reduce the abstract property law subject to a 'de-personalized rationality', and elide the material impacts of climate change on their lives, health and wellbeing.

In a period of significant change, property lawyers must adopt new approaches and methods to grapple with new kinds of material problems that abstract conceptions cannot hope to hold back. Indeed, the institution of private property—particularly through the scaling-up of financialised global capital—has been instrumental in driving system-level structural and political change in global and domestic property systems in the last half-century.[89] Even as rhetorical debates and legislative policies have driven major changes in the English land law system, transactional private property law doctrine has commandeered the language of 'continuity' or 'stability' over dynamism and change. 'Property values' are often associated with the capacity

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[86] D Kennedy, 'Form and Substance in Private Law Adjudication' (1975) 89 *Harvard L Rev* 1685 at 1691-92.
[87] H Collins, 'Utility and Rights in Common Law Reasoning: Rebalancing Private Law through Constitutionalisation' (2007) 30 *Dalhousie LJ* 1, 6.
[88] *Ibid.*
[89] *See* R Rolnik*, Urban Warfare: Housing under the Empire of Finance* (2019), at p24. *See also* MB Aalbers. 'The Financialisation of Home and the Mortgage Market Crisis', 12 *Competition and Change* 148 (2008); N Deakin & K Walsh, 'The Enabling State: The Role of Markets and Contracts' 74 *Public Administration* 33 (1996); N Gilbert & B Gilbert, *The Enabling State: From Public and Private Responsibility for Social Protection* (1989).

to fix land, entitlements and value 'in place',[90] privileging predictability, certainty and the *status quo*,[91] or incremental change, over radical innovation, adaptation and flexibility.[92] Underkuffler observed that: "[t]he promise of property law, and its critical social function, is to *protect* what it identifies as ours…property law promises that entitlements will not change."[93] Yet, as Underkuffler went on to add, these commitments are tested in periods of social, political, economic—or, we would add, environmental—change. In periods of change, property law "cannot, of itself, answer the question of when there is a justified change in that *status quo*."[94] Rather, she argued, it becomes incumbent on us, as property lawyers and property scholars, to think about when and how our assumptions must yield in response to changed contexts and questions. By extending the standing of litigant-stakeholders in climate change cases, the decision in *KlimaSeniorinnen* has begun the work of recognising and reckoning with the range of stakeholders to complex property problems. Future directions in this vein can be supported by the RPT approach which looks beyond transactional relationships between parties to consider the implications of property law and policy for a wider range of individual and networked stakeholders.

(c) Widening the legal lens: law, property and systemic sustainability

Foundational justifications for stable property rights and the protection of the *status quo* include the need to ensure the security of long-term expectations, the reliability of investment strategies, the rationality of decision-making about future land use, and stable forward planning.[95] Yet, as the climate change cases reveal, the acceleration of climate harms requires adaptation and a transition from narrow perspectives focused on 'property rights' to property governance within a sustainable legal system, and a sustainable material world. Lovett's account of property law in 'radically changed circumstances'[96] (using the case study of 2005's Hurricane Katrina) examined the mismatch between property law's traditional focus on

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[90] Birks described land law as "less unstable than other areas of the law." (P Birks, 'Before we Begin: Five Keys to Land Law' in S Bright & J Dewar (eds), *Land Law: Themes and Perspectives* (OUP, 1998), 457); Gray & Gray describe a 'closed system of logic' (K Gray & SF Gray, 'The Rhetoric of Realty' in J Getzler (ed), *Rationalising Property, Equity and Trusts: Essays in Honour of Edward Burn* (LexisNexis UK 2003), 205).

[91] L Underkuffler, 'The Politics of Property and Need' (2010) 20 *Cornell J L and Public Policy* 363 at 370; L Fox O'Mahony, 'Property Outsiders and the Hidden Politics of Doctrinalism' (2014) 67 *Current Legal Problems* 409 at 418-425.

[92] L Fox O'Mahony, 'Property Outsiders', *ibid*; AJ van der Walt, *Property in the Margins* (Hart Publishing, 2009), pp214-21. This tendency to conservatism was played out in the extended case law concerning the applicability and impact of Article 8 of the ECHR on possession proceedings: *see*, for example, the line of cases from *London Borough of Harrow v Qazi* [2004] 1 AC 983 to *Manchester City Council v Pinnock* [2010] 3 WLR 1441 and *Hounslow LBC v Powell* [2011] 2 WLR 287. Howell described as 'axiomatic' the belief that "anything as home grown as English land law could not be affected by foreign codes." J Howell, 'Land and Human Rights' (1999) 63 *Conveyancer and Property Lawyer* 287. The concessions wrested in *Pinnock* and *Powell*, that a proportionality argument might be made in a mandatory possession case based on 'exceptionality' followed a "consistent battering from the European Court of Human Rights."; D Cowan, L Fox O'Mahony & N Cobb, *Great Debates in Land Law* (3rd Edn, 2016), p153.

[93] L Underkuffler, 'Lessons from Outlaws' [2007] 156 U Pa L Rev PENNumbra 262.

[94] L Underkuffler, 'Property and Change: The Constitutional Conundrum' (2013) 91 *Tex L Rev* 2015, 2016 and 2030.

[95] *See* FI Michelman, 'Property, Utility and Fairness: Comments on the Ethical Foundations of 'Just Compensation' Law' (1967) 80 *Harv L Rev* 1165, 1214; cf N Davidson, 'Property's Morale' (2011) 110 *Mich L Rev* 437.

[96] J Lovett, 'Property and Radically Changed Circumstances' (2007) 74 *Tenn L Rev* 463.

stability, and environments of radical change. Daniel Fitzpatrick and Caroline Compton's *Law, Property and Disasters: Adaptive Perspectives from the Global South*[97] emphasised the role of adaptive governance for property in land. This critical need for property law to be adaptable in the face of radically changing environments was echoed in the Grand Chamber's reference to the European Environment Agency's Climate Risk Assessment:

> "Urgent action is needed now to prevent rigid choices that are not fit for the future in a changing climate, such as in land-use planning and long-lived infrastructure. We must prevent locking ourselves into maladaptive pathways and avoid potentially catastrophic risks."[98]

The report went on to note that: "Adaptation policies can both support and conflict with other environmental, social and economic policy objectives. Thus, an integrated policy approach considering multiple policy objectives is essential for ensuring efficient adaptation."[99]

The idea of flexibility and adaptation to changing circumstances is a central component of 'resilience', as this concept has been developed in the context of sustainability theory. 'Resilience' is defined as the capacity of a system to respond to, and rebound or recover from, shocks (sudden or extreme events) and stresses (long-term trends that undermine the system) without changing its basic state.[100] Resilient systems have the adaptive capacity to remain in a functional state;[101] to avoid 'tipping' into an altered state, by maintaining equilibrium in the face of challenges or crises. 'Resilience' in social systems and institution refers to: "the property of a social system to cope with, survive and recover from complex challenges and crises that present stress or pressure that can lead to systemic failure."[102] Sisk identified four characteristics of resilient social systems: flexibility, recovery, adaptability, and innovation.[103] 'Fragile' social systems (the opposite of resilient) are susceptible to breakage or fracture because they do not have internal mechanisms to help them cope, survive and prosper when confronted with change, challenges or crises.

The systemic importance of resilience is not fully reflected in the dominant, or 'official' narratives of property law, which typically tell simplified stories about property that elevate certainty over flexibility, predictability over adaptiveness. Most notably, perhaps, as we reflect on the importance of adaptiveness, flexibility, and

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[97] Routledge, 2021.
[98] European Environment Agency's ("EEA") "European climate risk assessment",[207] Executive Summary.
[99] European Environment Agency's ("EEA") "European climate risk assessment",[207] Executive Summary.
[100] B Walker & D Salt, *Resilience Thinking: Sustaining Ecosystems and People in a Changing World* (2006).
[101] J Ahern, 'From Fail-Safe to Safe-to-Fail: Sustainability and Resilience in the New Urban World', 100 *Landscape and Urban Planning* 341 (2011); L Vale & T Campanella, *The Resilient City: How Modern Cities Recover from Disaster* (2005).
[102] TD Sisk, 'Democracy's Resilience in a Changing World', in IDEA, *The Global State of Democracy: Exploring Democracy's Resilience* 37 (2017).
[103] He explained: "Resilient social systems are flexible (able to absorb stress or pressure), can recover from challenge or crises, adaptable (can change in response to a stress to the system), and innovative (able to change in order to more efficiently or effectively address the challenge or crisis)."; *ibid*, at 38.

innovation to maintain equilibrium and enable recovery in times of crises is the narrative that locates the essence of property in the "property values" of stability, certainty, predictability, and the protection of the *status quo*.[104] *KlimaSeniorinnen* reminds us, however, that this should not be interpreted *only* as the avoidance of change, or a backward-looking commitment to the status quo.[105] The stability norm is thought to "subdue uncertainty and flux and to improve stability and security."[106] However, this commitment to stability at the systems-level should not be confused with the idea that specific property rules cannot, or should not, flex to adapt to changing circumstances. Rather, it is the capacity to adapt that enables property systems to respond to challenges and crises: to be sustainable and resilient systems. By this measure, a stable land law system is not one that does not change, but one that can adapt to change.

Maintaining equilibrium in a dynamic context, through challenges and crises, requires adaptation, flexibility, and innovation, and "context-appropriate design" – sensitive to the nuances of the property nomos in each jurisdiction.[107] Legal resilience has been described as: "…the ability of an Institutional Environment to absorb, by legal mechanisms of resistance and recovery, unlawful practices, and also to adapt its legal space rules to accommodate and retain, or to improve its legal functionality *vis-à-vis* a new desired practice."[108] The resilience of legal systems, and property systems, depends on the ability to adapt, to flex, and to innovate in the face of unprecedented and unexpected challenges and change. Tony Arnold and Lance Gunderson argued that, when legal systems favour monocentric and unimodal methods and linear processes, they are maladaptive and ill-suited to resolving emerging challenges.[109] Arnold and Gunderson's concept of "adaptive law" focuses on how institutional structures emerge out of nested cycles of adaptation and change. Echoing the methods of wicked problem theory, they argued that the ongoing development of legal frameworks should mimic the resilience and adaptive capabilities of ecological and social systems. This would mean prioritising: (1)

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[104] Although Serkin argued that (in the US context), the history of property law is "the history of promoting increasingly intense uses" of land, chattels and ideas and its "guiding principle has not been maintaining stability but rather encouraging productivity". C Serkin, 'Existing Uses and the Limits of Land Use Regulations' (2009) 84 *NYU L Rev* 1222.

[105] JGA Pocock, *The Ancient Constitution and the Feudal Law* (1987) pp261–62; FI Michelman, 'Property, Utility, and Fairness: Comments on the Ethical Foundations of "Just Compensation" Law' (1967) 80 Harv. L. Rev. 1165, 1214; cf N. Davidson, 'Property's Morale' (2011) 110 *Mich. L. Rev.* 437. Michelman argued that property law's focus on stability is necessary for the protection of settled expectations, and that to unsettle expectations would generate "demoralization costs," depleting (owners') confidence in the system of property rights. Michelman's logic was challenged by Davidson, who argued that the property system is better served by prioritizing *ex post* flexibility over *ex ante* certainty, orienting property rules to support (all) parties' confidence that, over time, they will be treated fairly under a property regime that "will ensure inclusion."

[106] AJ van der Walt, 'Resisting Orthodoxy – Again: Thoughts on the Development of Post-Apartheid South African Law' (2002) 17 South African Public Law 259 at 270.

[107] Sisk argued that "democratic institutions can be designed for resilience, but there are no simple solutions and designs must be adapted to local realities. With context-appropriate design, it may be possible to craft institutions that are more resilient when they are tested by political, economic or social strains and pressures"; Sisk (2017).

[108] MA Heldeweg, 'Normative Alignment, Institutional Resilience and Shifts in Legal Governance of the Energy Transition', 9 *Sustainability* 1, 4 (2017).

[109] CT Arnold & L Gunderson, Adaptive Law and Resilience, 43 *Environmental Law Reporter* 10426 (2013).

adaptive goals that aim for multiple forms of resilience; (2) an adaptive system structure that is polycentric, multimodal and multi-scalar; (3) methods of adaptation and context-regarding flexibility; and (4) iterative processes with feedback loops and accountability mechanisms.

System-level frameworks like the European Convention on Human Rights, that recognise a range of rights (including the right to private property) which together constitute the democratic legal system,[110] are designed to mediate competing rights and claims, commitments and principles.[111] More broadly, Robbie and van der Sijde examined the role of international instruments[112] and national policy documents[113] in locating domestic property law systems within broader systems of values that: "…connect property rights with issues such as inequality, insecure tenure, environmental degradation, and climate change."[114] They noted that:

> "These challenges are of a global scale and nature, and tackling them requires a reconsideration of property's role and place within a legal system. With sustainable development emerging as a key organising principle for governance in some countries and regions, and a transition to sustainability becoming ever more urgent, it is necessary to re-evaluate many areas of law, including property law, in light of such global challenges."[115]

While the decision in *KlimaSeniorinnen* does not directly address the future question of property law's evolving role within the democratic legal system. as the German Constitutional court observed in *Neubauer and Others v Federal Republic of Germany*,[116] it signals clearly the Grand Chamber's acceptance that: "Within the balancing process, the obligation to take climate action is accorded increasing weight as climate change intensifies."[117]

4. Conclusions

[110] *See also* AJ van der Walt, 'The Modest Systemic Status of Property Rights' (2014) 1 *Journal of Law, Property and Society* 15 describing the important but relatively modest systemic role of property rights within the South African Constitution; J Robbie & E van der Sijde 'Assembling a Sustainable System: Exploring the Systemic Constitutional Approach to Property in the Context of Sustainability' (2020) 66 *Loyola Law Review* 553.

[111] SP West & L Schulz, 'Learning for resilience in the European court of Human Rights: adjudication as an adaptive governance practice' (2015) 20 *Ecology and Society* 31.

[112] Robbie and van der Sijde draw on the UN Food and Agriculture Organisations (FAO) Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security. Other examples would include the UN Committee of Economic, Social and Cultural Rights (OHCHR) General Comment No. 26 (2022) on land and economic, social and cultural rights, E/C.12/GC/26, 24 January 2023, cited above (fn 3).

[113] Robbie and van der Sijde specifically analyse Scotland's Land Rights and Responsibilities Statement (LRRS); another example, in the English context, might be England's Government Office for Science publication *Land Use Futures: Making the most of land in the 21st century*, cited above (fn 59).

[114] Robbie & van der Sijde, *op cit*, p554.

[115] *Ibid.*, pp554-555.

[116] Order of the First Senate of 24 March 2021, 1 BvR 2656/18 DE:BVerfG:2021:rs20210324.1bvr265618, with similar reasoning the Dutch Supreme court came to a similar conclusion in *Urgenda Foundation v State of The Netherlands* [2015] HAZA C/09/00456689.

[117] *Neubauer v Germany*, cited in *KlimaSeniorinnen*, para 257.

The Grand Chamber's decision in *KlimaSeniorinnen* marks a significant landmark in climate change litigation, but also poses important new questions for consideration by land and property lawyers. It brings to the foreground the material *object* of land law and its fundamental significance both as a factor in climate change mitigation and a primary site for the manifestation of consequences of climate change. In a period in which the forces and counterforces of dematerialisation through digital networks and property technologies are confronted by the unavoidable realities of re-materialisation through climate change, the Grand Chamber's decision to carve out a new approach to climate change cases appears to signal the dawn of a new paradigm. The nature of climate change poses substantial difficulties for the court: it is a complex, global problem, posing challenges of causation and attribution of responsibility; scaled across a timeline that is both long-term and urgent; requiring action in the present to prevent catastrophic harms in the future. The steps that the court has taken to grapple with these challenges, including the development of the 'victim' definition to include representative organisations and the acceptance of the principle of harm to our future selves, and future generations, are significant. Legislators, litigators, scholars and citizens concerned with property law and sustainability, the avoidance of catastrophic harms, and the resilience of our property system, have an important role to play in imagining, and implementing, new approaches.