

Fruit Salad

Roderick A. Macdonald

Volume 38, numéro 2, 2008

URI : <https://id.erudit.org/iderudit/1027042ar>

DOI : <https://doi.org/10.7202/1027042ar>

[Aller au sommaire du numéro](#)

Éditeur(s)

Éditions Wilson & Lafleur, inc.

ISSN

0035-3086 (imprimé)

2292-2512 (numérique)

[Découvrir la revue](#)

Citer cet article

Macdonald, R. A. (2008). Fruit Salad. *Revue générale de droit*, 38(2), 405–452.
<https://doi.org/10.7202/1027042ar>

Résumé de l'article

Selon la théorie orthodoxe, le droit des biens touche essentiellement l'identification et la protection des droits dans les choses, les biens corporels, compris comme étant finis dans l'espace et infinis dans le temps. L'économie moderne mine cependant la force explicative de cette orthodoxie sur quatre fronts. Premièrement, l'espace des biens n'est plus immuable, fixé à jamais. Cette caractéristique, particulièrement vraie des biens incorporels, l'est également des biens corporels. Deuxièmement, la temporalité des biens est désormais comprise différemment. La distinction de jadis entre fruits et produits est donc remise en question : les fruits, autant que les produits, peuvent diminuer la valeur du capital. Troisièmement, l'alliance entre les fruits et les revenus devient indéfendable. Plusieurs types de revenus représentent en fait le prix d'une aliénation partielle et peuvent, par conséquent, être considérés comme des produits. Finalement, des développements, tant matériels (notamment génie génétique) qu'intellectuels (notamment les droits moraux) mettent à l'épreuve l'idée du bien comme une chose dont on peut faire usage. Alors que la théorie des biens du livre IV du C.c.Q. reflète toujours les présomptions spatio-temporelles traditionnelles, le droit des sûretés réelles du livre VI est plutôt fondé sur une vision alternative des biens en tant que valeur. À travers une analyse détaillée de la notion de fruit, ce texte tente de démontrer comment le Code civil équilibre les distinctions entre fruits, produits et accessions (les biens-choses), d'une part, et entre les revenus, le capital et les produits (les biens-valeurs), d'autre part.

Fruit Salad

RODERICK A. MACDONALD

F.R. Scott Professor of Constitutional and Public Law, Faculty of Law,
McGill University Montréal

ABSTRACT

In orthodox theory, the law of property is held to be fundamentally about the identification and protection of rights in things (corporeal property), assumed to be finite in space and infinite in time. But modern economies undermine the explanatory power of this orthodoxy four ways. First, the space of property can no longer be easily fixed once and for all. This is especially the case for incorporeals but is also true of corporeals. Second, the time of property is now understood differently. The past distinction between fruits and products has been questioned with the recognition that fruits, like products, can also diminish capital value. Third, the close association of fruits and revenues is becoming untenable. Many types of revenue actually represent the price of a partial alienation and can, consequently, be

RÉSUMÉ

Selon la théorie orthodoxe, le droit des biens touche essentiellement l'identification et la protection des droits dans les choses, les biens corporels, compris comme étant finis dans l'espace et infinis dans le temps. L'économie moderne mine cependant la force explicative de cette orthodoxie sur quatre fronts. Premièrement, l'espace des biens n'est plus immuable, fixé à jamais. Cette caractéristique, particulièrement vraie des biens incorporels, l'est également des biens corporels. Deuxièmement, la temporalité des biens est désormais comprise différemment. La distinction de jadis entre fruits et produits est donc remise en question: les fruits, autant que les produits, peuvent diminuer la valeur du capital. Troisièmement, l'alliance entre les fruits et

considered proceeds. Finally, developments both material (like genetic engineering) and intellectual (like moral rights) challenge the idea of property as a thing to use. While the theory of property in Book IV of the C.C.Q. continues to reflect traditional spatio-temporal assumptions, the law of secured transactions in Book VI rests on an alternative vision of property as value. This essay deploys a detailed analysis of the idea of fruits to illustrate how today the Civil Code balances distinctions between fruits, products and accessions (property as thing) on the one hand and between revenues, capital and proceeds (property as value) on the other.

Key-words : *accessions — capital — fruits — revenues — proceeds of disposition — products — property — property as thing — property as value, thing*

les revenus devient indéfendable. Plusieurs types de revenus représentent en fait le prix d'une aliénation partielle et peuvent, par conséquent, être considérés comme des produits. Finalement, des développements, tant matériels (notamment génie génétique) qu'intellectuels (notamment les droits moraux) mettent à l'épreuve l'idée du bien comme une chose dont on peut faire usage. Alors que la théorie des biens du livre IV du C.c.Q. reflète toujours les présomptions spatio-temporelles traditionnelles, le droit des sûretés réelles du livre VI est plutôt fondé sur une vision alternative des biens en tant que valeur. À travers une analyse détaillée de la notion de fruit, ce texte tente de démontrer comment le Code civil équilibre les distinctions entre fruits, produits et accessions (les biens-choses), d'une part, et entre les revenus, le capital et les produits (les biens-valeurs), d'autre part.

Mots-clés : *accession — biens — biens comme choses — biens comme valeurs — choses — capital — fruits — produits — produit d'une disposition — revenus*

SUMMARY

Prologue	407
1. Property in space and time.....	410
2. Beyond the classical construction	418
3. Fruits of the vine (<i>fructus naturales</i>).....	423
4. Fruits of the loins (the increase of animals and crops).....	426
5. Fruits of labour (<i>fructus industriales</i>)	428
6. Fruits of investment (<i>fructus civiles</i>).....	432
7. Fruits of the tree of knowledge (revenues)	438
8. Fruits of the imagination (real subrogation).....	443
Epilogue	449

PROLOGUE

1. As I grow older, and lose my addiction for the gastro-nomic inventions of dessert chefs — profiteroles, crème brûlée, chocolate mousse — my taste buds crave the satisfac-tion of fresh fruits. Even purées, blends, and artificially sweetened mélanges no longer appeal. Indeed, for me today dessert heaven is a carefully constructed fruit salad unadorned by any artifice other than, perhaps, a sprinkling of shredded coconut.
2. In reflecting on the connection between the alimentary concept of fruits (embracing as it does such unlikely items as tomatoes, beans, pumpkins and even some nuts, but excluding pseudocarps like strawberries and pears) and the legal concept of fruits (embracing as it does such non-dessert fruits as piglets, milk, wool, blood, trees, fungi, viruses, sod, money earned as interest and dividends), one immediately confronts the metaphysics of categories. In making this obser-vation I do not mean merely to repeat the commonplace

wisdom that intellectual categories are “unnatural”. Nor do I wish to join the debate between Peter Birks and Geoffrey Samuel on the question of whether there is (or should be) some priority between abstraction and nominalism in legal characterization.¹ Rather, I am most interested in the way that the structures of categories—the metaphorical referents of classification—influence how we imagine the possible in law. The subtle and counter-intuitive character of the biological categorization of fruits and vegetables suggests that the “commonsense”, intuitive, functional, culinary approach (a fruit is a plant that you eat for dessert) will seep into and inform the legal concept of fruits.² By analogy, one might say that a fruit in law is whatever functions like a fruit, even if, conceptually, it is a product.

3. This paper explores, in particular, how the original material referents of basic legal concepts in the civil law of property continue to shape the manner in which orthodox property theory is imagined and elaborated. My primary gaze is not directed to the root concept of ownership or to its modalities and dismemberments. I focus instead on the material and non-material objects of this right of ownership (the space of ownership) and the manner these change and mutate (the time of ownership).

4. The spatial and temporal dimensions of any legal right are indissociable. Consider, for example, the complex relationship between “groups” of everyday concepts like : (i) accession, specification, and confusion as transformations of the objects of property, (ii) fruits, revenues and products as things apparently produced by property, (iii) alluvium of immoveables and the

1. For the last round in their debate see Peter BIRKS, “Introduction”, in Peter BIRKS (ed.), *English Private Law*, vol. 1, New York, Oxford University Press, 2000; Geoffrey SAMUEL, “English Private Law: Old and New Thinking in the Taxonomy Debate”, (2004) vol. 24, n° 2 *Oxford Journal of Legal Studies*, 335.

2. Much of the confusion about “fruit” and “vegetable” arises because of the differences in usage between scientists and cooks. Scientifically speaking, true fruits are developed from the ovary in the base of the flower, and usually contain the seeds of the plant. As far as culinary usage is concerned, some things which are “fruits” may be called “vegetables” because they are used in savoury rather than sweet cooking. The squash, though technically a fruit, is often used as a vegetable. Conversely, rhubarb, while technically a vegetable, is typically eaten as a fruit. On the classification of fruits, see Richard W. SPJUT, *A Systematic Treatment of Fruit Types*, New York, New York Botanical Garden, 1994.

increase of animals and vegetables, as an augmentation of the *assiette* of property, and erosion, rot and death as a diminution of that *assiette*, and (iv) real subrogation, as compared with the concept of proceeds more generally as a reflection of continuity and mutation in property. In each of these four groupings, the law conceives that the scope of the property right (the tangible or intangible object to which it attaches) is not static — it will expand or contract, grow or deteriorate, increase or decrease in value, reproduce itself or be converted into something else. In each example, moreover, the degeneration, regeneration, or transformation projects itself through time — sometimes normally, sometimes abnormally; sometimes “naturally”, sometimes “artificially”.³ Finally, while these groupings appear to be discrete, in practice the lines between them dissolve — whether a particular object of property is an accession, a fruit, the increase in the *assiette* of a right, or a proceed does not derive from any of its inherent characteristics, but rather flows from asking different questions about the relationships it mediates.

5. Of course, despite their immediate reference to material things, these four sets of spatio-temporal concepts in the law of property are now understood as metaphors.⁴ As such they are meant to organize the data we perceive, induce the connections we draw and suggest the inevitability of the conclusions we reach. Over the two centuries since the Napoleonic codification, however, they have gradually lost their symbolic centrality. Metaphors referencing corporeal property no longer offer the liberation of a true metaphor, and the search is on for new metaphors to explain the human relationships that property rights both exemplify and make possible. Once property rights are seen as a space-time complex, a number of vectors in contemporary property theory take on a new coloration.

3. The *Civil Code of Québec*, S.Q. 1991, c. 64 (hereafter C.C.Q.), recognizes the distinction between natural and artificial (or industrial) instantiations of change explicitly in relation to accessions, fruits, the increase of animals, and the decrease of property by erosion or extraction of products. The distinction is also present (though only implicitly) in relation to confusion, proceeds and the increase of vegetables. Only the concepts of specification and revenues (civil fruits) apparently require the intervention of human agency.

4. On the pervasiveness use of metaphor in law, see Richard JANDA, Daniel DOWNES, “Virtual Citizenship”, (1998) *Canadian Journal of Law and Society*, vol. 13, n° 2, 27–32.

The conventional claim about the dematerialization of property from things to rights⁵ is but one dimension of an intellectual development that also embraces a change in perspective (i) from property as an object of separation and exclusion to property as relational experience, (ii) from property as inherently static to property as inherently dynamic, and (iii) from property as a thing to be used to property as value.

6. Section I of this paper elaborates how the space and time of property have been occluded by orthodox property doctrine and suggests a new vocabulary for addressing the inherent dynamism of property. Section II then discusses more directly the relationship between the concept of fruits and these various dynamic dimensions of property. Sections III through VIII disaggregate the concept of fruits and trace the limits of its explanatory power in various modern settings. Finally, the Epilogue illustrates, by comparing the logic of the usufruct in Book IV of the C.C.Q. with the logic of the hypothec in Book VI of the C.C.Q., the way in which the idea of property as value finds its place in contemporary property doctrine.

1. PROPERTY IN SPACE AND TIME

7. The classical French civil law construction of property as followed in Québec is a direct descendent of Roman law.⁶ It rests on two fundamental distinctions relating to the objects of property: that between immovable and moveable property; and that between corporeal and incorporeal property.⁷ What things comprise the realm of property, what prerogatives can be associated with the concept of property, and how these prerogatives can be aggregated into constellations of

5. On the gradual abandonment of the idea that only *things* can be owned (that the right of ownership can be subsumed into the thing) and the elaboration of a general theory of "titularity" in its stead, see Yaëll EMERICH, "Faut-il condamner la propriété des biens incorporels? Réflexions autour de la propriété des créances", (2005) *Cahiers de droit*, vol. 46, 905.

6. QUÉBEC, *Civil Code of Lower Canada: Report of the Commissioners for the Codification of the Laws of Lower Canada Relating to Civil Matters*, Québec, Desbarrats, 1865; John E.C. BRIERLEY *et al.*, *Québec Civil Law: An Introduction to Québec Private Law*, Toronto, Emond Montgomery Publications, 1993.

7. Article 374 of the *Civil Code of Lower Canada* (hereafter C.C.L.C.); article 899 C.C.Q.

rights having a specific label—for example, *jus in re* like ownership, emphyteusis, usufruct, use and habitation, and *jus ad rem trans personam* like the rights of a lessee, depositary and borrower — are, in contemporary Québec law, all inquiries derived from imagining property as fundamentally a conceptual construction of a material “reality”.⁸

8. In principle, that primal material reality — that world of things — is composed of land and its various accoutrements (corporeal immoveables) and objects, whether living or inanimate (corporeal moveables). Even more narrowly, the point of reference for codal regulation of property rights is the subset of corporeal immoveables known as land (the special type of corporeal immoveable that, typically having a finite physical geography, is deemed to be “naturally” immoveable). In French civil law, the justification for a focus on land appears to be partly a consequence of the legacy of Roman law and partly as consequence of enlightenment philosophy.⁹ But the roots go deeper. For example, anthropologists have long understood the close relationship between land, sovereignty and spirituality.¹⁰ Judeo-Christian theology also played a role in justifying the idea and the scope of property, as the opening verses of the Bible remind readers of the Pentateuch. “In the beginning God created heaven and the earth.” Genesis I continues: “God said, let the waters under the heaven be gathered together in one place, and let the dry *land* appear; and it was so. And God called the dry *land* Earth”.¹¹ Dry land — earth — is the foundation of all that is. Man’s (*sic*) dominion extends over the earth and all that is upon it — the fish of the sea, the fowl of the air, and every living thing that moves upon the earth; it extends to every herb bearing seed, and

8. While obligations (*jus in personam*) also must be fitted within the general theory of property as a matter of conceptual organization neither the C.C.L.C. nor the C.C.Q. deals with creances as a species of property right. See article 583 C.C.L.C.; article 916 C.C.Q.; Denys-Claude LAMONTAGNE, *Biens et propriété*, 4th ed., Montréal, Éditions Yvon Blais, 2002, n° 101.

9. André Jean ARNAUD, *Les origines doctrinales du Code civil français*, Paris, L.G.D.J., 1969.

10. See Étienne LE ROY, “Odologie, topocentrisme et géométrie, trois représentations d’espaces générant des modes complémentaires de sécurisation foncière et de maîtrises territoriales”, (2004), unpublished, given at conference at Poitiers, ICOTEM, *La question foncière en rapport avec l’environnement*, 17 juin 2004.

11. Genesis, c. 1, verses 1, 9, 10, (King James Version, 1611) (emphasis in original).

every tree bearing fruit and yielding seed.¹² Political philosophy, anthropology and theology together point to the earth — land — as that material reality upon which conceptions of man's dominion should be built. It is here — with the paradigmatic “corporeal immoveable by nature” — that the legal story of property and its associated fruits in the French civil law tradition begins.

9. In the everyday cosmology of most human beings raised under the symbolism of western European culture, land occupies a fixed and bounded physical space. So conceived, the momentary conceptual snapshot of land as corporeal immoveable unproblematically projects itself forward and backwards in time. But land, even if not a “living or animate thing” is constantly changing. To begin, land is not immutable. Its physical dimensions and boundaries may be materially changed either through addition¹³ or subtraction.¹⁴ Furthermore, land is not inert. Even in the liminal case of a desert, land is alive: it is capable of material generation and regeneration.¹⁵ Conversely, land degenerates.¹⁶ Yet, by contrast with spiritual, animist, conceptions of land held by many aboriginal peoples, the hypostatized legal category of corporeal immoveable by nature (article 900(1) C.C.Q.) presupposes a stable material state to which the label uncontroversially applies. Most of articles 901-903 C.C.Q. (which expand the category of immoveable to embrace moveable things attached to land) and 908-938 C.C.Q. then seek to account for the insufficiencies of

12. Genesis, c. 1, verses 28–30 (King James Version, 1611).

13. It may be added to: by natural or man-made accession of its physical substance—as in alluvium or the addition of land-fill; or by objects falling from space; or volcanic eruption; or a drop in surface water caused by lack of rain, excessive diversion for irrigation, etc.; or by the erection of buildings.

14. Land loses whatever is detached following a change of course of a river and is thereby added to another piece of land; or its expanse may be reduced through wind and water erosion; the simple rise in surface water; flooding caused by the damming of rivers; or the extraction of its visible substance through mining, quarrying, the digging of soil, the extraction of water and gas, etc.

15. Land is composed of rocks and soil, which — modern chemistry teaches — are never inert; moreover, land hosts all manner of living organisms and bacteria; it is interlaced with decaying roots, mushrooms and parasites, as well as being teeming with worms, slugs, insects and other burrowing creatures. Even in the absence of recognizable surface vegetation and animals, land harbours infinite varieties of life.

16. Verdant countryside may become desert; plants and trees may die or be destroyed by fire; soil may cease to be arable; and aquifers may dry up.

conceiving corporeal immoveables in a stable state, by elaborating diverse dynamic dimensions of this material object.

10. In the story of Genesis, God created fish, fowl, animals, trees, fruits and seeds as accessories to land. Not surprisingly, this biblical story tracks anthropological understandings and is also consistent with the extension of the legal regime governing corporeal immoveables to the domain of corporeal moveables.¹⁷ Where corporeal moveables are inanimate natural objects like stones, or inanimate manufactured objects like chairs, tables, televisions and computers their presentation as occupying a fixed physical space and as unchanging is reasonably plausible. But some corporeal moveables — flora and fauna (animals, fungi, parasites, bacteria or viruses) — are alive as discrete organisms. All these corporeal moveables occupy space and consequently appear to have a physicality that is constant through time. Still, even if not animate, they are continuously changing. Like land, they are not immutable: they may be added to,¹⁸ subtracted from¹⁹ or transformed either naturally or through human action.²⁰ They are also not inert: they are capable of generation,²¹ regeneration²² or de-generation, either naturally or

17. By contrast, of course, the common law tends not to model rights in personal property upon the structure of rights it elaborates for real estate. See, for example, Frederick Henry LAWSON, Bernard RUDDEN, *The Law of Property*, 2nd ed., Oxford, Clarendon Press, 1982, c. VII.

18. Consider the natural growth of plants and animals, natural accession as when a fungus or parasite attaches itself to a tree, or natural confusion when elements in interaction form a compound.

19. The space of a corporeal moveable may also be decreased: by consumption, destruction, starvation or degeneration through, for example, crop disease, animal tuberculosis or rust.

20. Transformation typically occurs through human activity, as when wood is burned to produce charcoal, vegetables are composted to produce fertilizer, wood is worked into lumber, milk is churned into butter, sap is boiled down to maple syrup. It may also occur without human intervention, by natural evolution from seed to plant, from flower to fruit, or from larva to pupa to butterfly.

21. Living things often generate other things without a diminution of their substance — tree fruits, milk, manure, or honey. Other animals produce products that appear to involve a reduction of their substance — sheep shorn of their wool and moose the antlers of which have fallen — but that regenerate. Many vegetables also can regrow, whether through destruction or partial destruction of the initial vegetable — as in the eyes of potatoes or cuttings from a plant for splicing to a new plant.

22. Many moveables reproduce themselves without diminution of their substance — as in plant seedlings, animal offspring, spontaneous extension (e.g. cancer cells) and cloning.

through human effort.²³ Like article 900(1) C.C.Q., article 905 C.C.Q. hypostatizes the legal category of corporeal moveable by presupposing a stable material state to which the label uncontroversially applies. Most of articles 906–907 C.C.Q. (by extending the concept to waves of energy and any thing not deemed immovable), and 908–946 C.C.Q., again in a manner parallel to that applicable to corporeal immovables, then seek to account for the insufficiencies of conceiving corporeal moveables in a stable state by elaborating their diverse dynamic dimensions.

11. According to Genesis, God's creative work ended with populating the earth — “and God saw every thing that he had made, and, behold, *it was* very good”.²⁴ Thereafter, human beings assumed responsibility for the stewardship of this handiwork. With the Fall, and the knowledge of good and evil, came human reason. With reason came the possibility of abstraction, and with abstraction came the invention of appropriation. A plot of land is just a plot of land until someone makes a claim in relation to it. In other words, “it is mine” is not a claim about land itself; rather it is a claim about one's relation to the land. But since the relationship in question is typically conflated with the thing, the incorporeal character of the claim (the legal right) is obscured.²⁵ Even mere physical custody of land or a thing is not property until it is characterized as either detention or possession.²⁶ The paradox of incorporeal immovables in current civil law is that while, historically, the C.C.L.C. law embraced a realm of incorporeal immovables without a direct attachment to a

23. Some moveables are not alive but may be nonetheless transformed without human intervention (chemicals in reaction with each other whether as catalyst, oxidizing agent or radioactive decay).

24. Genesis, c. I, verse 31 (King James Version, 1611) (emphasis in original).

25. Only when relationships with things immediately call forth relationships with other people — as, for example, with a dismembered real right of enjoyment, or a *jus ad rem trans personam* — does the incorporeal character of property rights become apparent. See article 381 C.C.L.C.; article 904 C.C.Q.

26. Article 921 C.C.Q. That is, the mere presence of a human being on or in a corporeal immovable is not conclusive of any legal right. A trespasser makes no claim to the land; neither does a transient camper who pitches a tent for the night. The intentionality of the presence controls the right being claimed.

corporeal object²⁷ this is textually no longer the case.²⁸ Is it possible to conceive of an incorporeal immovable that has no material reference point? Imagine a beautiful vista such as a sunset or starlight that exists apart from any land. While it may be *res nullius* and incapable of private appropriation, the vista nonetheless has a value appreciable in money. For example, a person with an occupancy right in or on land from which the sunset may be best observed can extract a rent for the privilege of observation.²⁹ Likewise, in similar circumstances, the breeze one feels on one's face, or the radiant solar heat one feels while sunbathing, or the sound of the ocean's roar can be conceived as an incorporeal immovable separate and independent from the physical location from which the breeze, heat or roar is perceived.³⁰ The transcendence of these sensations might well induce us to characterize the immaterial object as immovable rather than moveable, and any right in respect thereto as an incorporeal immovable. But the implausibility of there being such a thing as a free-standing incorporeal immovable not connected to a corporeal immovable in the manner of article 904 C.C.Q. makes it difficult to imagine that issues of space and time will play out

27. Under the article 382 C.C.L.C., of course, certain "objects" were declared to be immovable, such that rights attaching thereto were immovable. This category included capital sums of unredeemed constituted rents, sums accruing to a minor from immovables sold during his minority, and sums given to descendants by marriage contract. The emphyteutic rent (article 388 C.C.L.C.) and the right to cut timber (article 381 C.C.L.C.) are two other examples of claims (personal rights) declared immovable.

28. Article 904 C.C.Q. limits the category of incorporeal immovables to real rights in immovables or actions taken to assert such rights or to obtain possession of an immovable.

29. While in the normal case (airplanes excepted), the exploitation may require a corporeal immovable location from which to exercise the view, the view itself is neither corporeal, nor derived from a corporeal immovable. Where the object being viewed is someone else's corporeal immovable, that view may be property in the hands of the owner of the land, but is not itself corporeal. An analogy to the case put here can be found in the rule on "views" in article 993 C.C.Q., although that article speaks only to views that originate in buildings or their attachments. Nonetheless, this servitude affects immovable property, and would therefore be an immovable right (article 904 C.C.Q.).

30. Although article 906 C.C.Q. provides that "waves of energy harnessed and put to use by man ...are corporeal moveables" in the examples given none of the molecules of air being moved, nor the infra-red heat waves, nor the ultra-violet sound waves, are "harnessed and put to use by man" even if, as a matter of physics, they are "waves of energy".

differently for incorporeal immoveables than for corporeal immoveables under articles 901–903 and 908–938 C.C.Q.

12. An infinitely more complex construction arises in the realm of incorporeal moveable property. First of all, there are a range of rights built upon relationships with material things that are moveable: the transformation of *de facto* physical custody into *de jure* detention or possession (as finder, prehender or *negotiorum gestor*); the claim to a real right of enjoyment (*jus in re*); the assertion of a personal right (for example, as lessee, borrower, depositary) in respect of a thing (*jus ad rem trans personam*); the right to reproduce an image, or a trademark, etc.; and rights of action pertaining to corporeal moveables. But, in contrast with the purely imaginary category of incorporeal immoveables, there is a vast array of incorporeal moveables that have no reference point in a corporeal moveable. Most, of course, belong to the law of obligations: personal rights such as claims and rights of action (*jus in personam*); intellectual property in ideas, music, dance patterns, and formulae; various forms of securities such as debentures, bonds, deposit certificate, and shares that may have an evidentiary reflection in a writing or electronic book entry, but that are not negotiable in their paper form. The legal category of incorporeal moveable is, in fact, no category at all. No codal text imagines or characterizes an incorporeal moveable such that a stable state may be imagined. Few, if any, of articles 907-946 C.C.Q. speak directly to such property. As a result, whatever the subcategory of incorporeal moveable, the rights that fall within it have historically been analysed in the same terms as those applied to corporeal immoveables. However, what legal orthodoxy imagines as exceptional for corporeal immoveables is integral to incorporeal moveables. They are necessarily dynamic since they presuppose human action. Moreover, even in their immateriality, their boundaries are not immutable: they may be added to and subtracted from. And finally, they are not inert: they are capable of generation, regeneration, degeneration and transformation through human effort. Indeed, incorporeal moveables have no space, and their time is never momentary.

13. The conventional vocabulary of property is a vocabulary of materiality, of tangibility, of the tactile sense. It would of course be possible to conceive of property otherwise: the law

might imagine the sight, the sound, the smell (fragrance) and the taste of property. Indeed, much of the law of patents, trademarks and copyrights is an attempt to capture the images and translate sight, sound, smell and taste into discrete items of property. Moreover, the everyday words we use to speak of *things* can invoke visual, auditory, olfactory and gustatory images.³¹ Even that apparently irreducible unit of property — land — conveys a complexity of meaning beyond tangibility. Consider such expressions as “I was born on the land”, or “to land on one’s feet”, or “land’s sake” or “he’s living in la-la-land” or “land-speech” or “land-scape” or “land of the living” or “the lie of the land”.³² The way that we speak of things has implications for, and gives strong clues about, how we think of them. And yet, while “the world” may give us the substance of a vocabulary and the referents of language, our vocabulary in turn also structures and organizes the world for us.

14. It is, of course, possible to think of property as, first and foremost, an idea, rather than a thing that can be touched, seen, heard, smelt, and tasted. That is, it is possible to think of property not so much as things to be apprehended and possessed (in which case incorporeal property is a fictional derivative of corporeals) as a series of symbols through which people mediate their relationships with each other.³³ Since all relationships project themselves through time, these symbols are necessarily dynamic. Space and time become central features of property, not simply inconvenient variations on an otherwise immutable and inert physicality to be isolated and catalogued in the language by which the law now translates addition, subtraction, and transformation: fruits, products and accessions; revenues, capital and proceeds; confusion,

31. Roderick A. MACDONALD, Jonathan WIDELL, “Office Politics (Again)!", (2005) *Canadian Journal of Law and Society*, vol. 20, n° 2, 1, 3 ff.

32. Nine primary uses and several dozen secondary uses or derivatives of “land” are listed in the, OED, [On line]. <http://dictionary.oed.com>, qu.u.fruit.

33. People also attempt to mediate their relationships with others through things — houses, cars, clothes, jewelry, consumer goods, and food — but in so doing, these things become symbols: their meaning transcends their particular object. On the idea that in negotiating these different relationships we are reasserting the interpersonal and interactional foundation of all types of property, see Roderick A. MACDONALD, “Relational Ownership”, in Jean-Guy BELLEY (ed.), *Regards croisés sur le droit privé / Cross-Examining Private Law*, Montréal, Éditions Yvon Blais, 2007, 167.

specification and real subrogation. In such an understanding, the orthodox concept of immutable and inert property will come to occupy an intellectual place not unlike that now accorded to the previously dominant Newtonian mechanics in the realm of physics. Conceiving movement of property rights in space and time through a more general conceptual model that evokes instead generation, degeneration and regeneration is the legal equivalent of *quantum mechanics*. To an analysis of property in such a framework this essay now turns.

2. BEYOND THE CLASSICAL CONSTRUCTION

15. Immutability and inertia are conceptual constructions meant to simplify how the utilities and prerogatives of the right of ownership may be conceived and allocated. In combination they form the backdrop to orthodox understandings of private property and conduce to seeing corporeal immoveables as its paradigm object. When property is reconceived as dynamic over time and extensible in space, corporeal immoveables lose their privileged place and appear simply as one of the more easily apprehended instantiations of property. Corporeal immoveables stand in relation to the general idea of property — an idea best reflected today in the category incorporeal moveables — in much the same way that integers stand in relation to number theory.³⁴ Tracing the implications of this conceptual inversion requires that we attend, first, to the different ways in which Québec property law now accounts for space, time, and human agency.

16. Articles 901-903 and 908-946 C.C.Q. elaborate the relational content that attaches to, and the relational activity

34. I owe this point to my colleagues Richard Janda and Lionel Smith who observe that, traditionally, arithmetic is taught first by asking students to count, say, apples, oranges and bananas. Only later is it explained that “1” is a natural number, and that the sets of numbers used by mathematicians are infinitely more complex, encompassing whole numbers (by adding zero), integers (by adding negative whole numbers), rational numbers (by adding fractions), real numbers (numbers such as π that cannot be expressed as fractions) and imaginary numbers (such as the square root of -1). Each step adds more analytical power. Similarly, corporeals (land, objects) serve as an entry point for analyzing property rights. But unlike the case in mathematics, where arithmetic is seen as leading to more complex constructions that operate on different intellectual premises, in law orthodox theory is still built upon our original intuition about discrete things (corporeal property).

that produces variations in, the scope of property rights. In one triptych, the Code addresses changes to the materiality of property: addition (accession), subtraction (waste, extraction of a part of its substance) and transformation (specification). In another, it purports to focus on proceeds:³⁵ capital, fruits, and revenues. Implicitly, these combinations evoke a central duality: the first directs attention to property as a thing that may be used; the second points to a fundamental feature of property in a modern economy — its value.³⁶

17. To explore the difference between these understandings of variations in the scope of property it is helpful to begin with the codal construction of ownership. Article 947 states: “Ownership is the right to use, enjoy and dispose of property fully and freely ...” The focus is on the *here and how*: on the one hand, the right to use and enjoy (*jus utendi*); on the other, the right to dispose (*jus abutendi*). Articles 948–949 then elaborate two other prerogatives of ownership.³⁷ Article 948 provides that “[O]wnership of property gives a right to what it produces and to what is united to it, naturally or artificially, from the time of the union. This right is called a right of accession ...” (*vis attractiva*).³⁸ Article 949 states that “[T]he fruits and revenues of property belong to the owner ...” (*jus fruendi*).³⁹ Here, by contrast, the focus is on what

35. The English language text of the C.C.Q. is defective: “proceeds” is not a proper category here, and a much better rendition of the French language version “rapports avec ce qu’ils produisent” (in the heading of Book 4, Title 1, Chapter 2) would be either “in relation to what it produces” or even “to its products” (similar to the English translation of “ce que le bien produit” in art. 910(1) as “that which is produced”). For an appropriate usage of the word, speaking to the idea of proceeds being “what is received upon the disposition of property”, see article 2674(3) C.C.Q.

36. This is not to say, of course, that the conception of property as value was unknown to Romanists and 19th century civil lawyers. The point is, rather, that property as value now occupies a larger (perhaps predominant?) space in the imagination of property theorists. See Bernard RUDDEN, “Things as Things and Things as Wealth”, (1994) 14 *Oxford Journal of Legal Studies* 82.

37. While these articles are framed in connection with the right of ownership, the identified prerogatives inhere in other real rights as well. For example, a usufructuary may use and enjoy its right of usufruct (art. 1120 C.C.Q.), derive its fruits and revenues (art. 1126 C.C.Q.), dispose of any consumable property (art. 1127 C.C.Q.), and benefit from any additional object that attaches to the right (art. 1124(2) C.C.Q.).

38. See William DROSS, *Le mécanisme de l’accession. Éléments pour une théorie de la revendication en valeur*, thèse Nancy II, 2000.

39. Here again the language of the Code is defective. Presumably, in order to avoid redundancy with article 949, the words “what it produces” in article 948 must

happens through time. The C.C.Q. thus makes apparent a distinction between attributes and prerogatives of ownership that presuppose immutability and inertia and those that do not. The rights to use and enjoy, and to dispose are conceived as connected to the substance of an object of property viewed as a momentary, unchanging asset and can be imagined in abstraction from human purposes and intentions. By contrast, the rights to what property generates (its fruits and revenues) and to what is attached to or united with it (its accessions) or detached from it (its de-accessions) necessarily presuppose change to the substance (or space) of property through time.⁴⁰

18. The claim that the right of use and enjoyment (*usus*) is fundamentally static is hardly revolutionary. The right of use presupposes corporality as permanent, unless the object is a consumable (food, a pencil, an eraser), or an object that necessarily deteriorates with use (an automobile), or is time-limited by its nature as a living thing (as with animals and plants). Likewise, the right of use of incorporeal property (a dismemberment, a lease, a license, intellectual property) does not, inherently, imagine change through time. Moreover, the right of use and enjoyment presupposes constancy in the scope of the owner's prerogative.

19. In a similar way the right of disposition (*abusus*) is a-temporal. One may alienate one's right of ownership by disposing of the whole of one's legal entitlement (through sale or gift, for example), or a fraction thereof (a dismemberment, or even a *jus ad rem trans personam*). One may also sub-divide land, either horizontally or vertically (*superficies*), or sell an undivided share of a moveable such as a painting. In all these cases, the corporality of the object is unchanged; only the legal character of the prior owner's relationship to it modified. In traditional analyses, the right of disposition is seen to have a second element that implies materiality: an owner

be read as referring only to "products" and not to "fruits and revenues". That is, the article addresses the case of permanent accessions and "de-accessions" to the substance of property.

40. Article 409 C.C.L.C. implicitly recognized the difference between use and disposition on the one hand, and fruits and accession on the other, by grouping various categories of fruits under the heading "of the right of accession over what is produced by a thing".

may physically diminish the property by extracting parts of it — for example, by mining, quarrying, selling soil, pumping water, gas or hydrocarbons, stripping a car of its engine or tires, and so on.⁴¹ These situations involving a material *abusus* actually are more in the nature of the converse of the right of accession: they are de-accessions. Although they suggest a change to the object through time, what is really occurring is a discrete, momentary event that defines the object of the right.⁴² Nonetheless, by contrast with the right of use, the right of disposition imagines a rupture or discontinuity of the owner's prerogative.

20. The right to fruits (*fructus*) is quite different from the right of use and enjoyment and the right to dispose — in two ways. To begin, the right attaches to property conceived as a distinct asset. A fruit (the quality of fruitiness) is a characterisation of a discrete object of property that is generated from other property, typically on a periodic basis,⁴³ and that may be severed without a permanent alteration in the substance⁴⁴ of the initial property from which it is generated.⁴⁵ So, for example, milk drawn from a cow is a fruit, but a kidney removed from a cow is not. So also, peaches produced by a tree are fruits, but branches cut from a tree that are not destined to grow back, presumably are not.⁴⁶ The latter are products —

41. D.-C. LAMONTAGNE, *Biens et propriété*, *op. cit.*, note 8, n° 206: “la disposition peut être matérielle (rénovation, altération, destruction) ou juridique (aliénation)”.

42. There is one form of the “right of material disposition” that seems to imply change through time. An owner may waste land or an object. This usually occurs through the physical use (or non-use) one makes of property that is not inherently consumable. For example, land may be polluted or may erode, or an object may be left to rust or to freeze in the winter. In the frame of analysis adopted here, however, this form of the right of disposition is simply a perverse exercise of the right of use and enjoyment and, like the case of de-accessions, is not properly conceived as involving a disposition.

43. See Stéphane PIEDELIEVRE, *Rép. civ. Dalloz*, v. *Fruits*, n° 29. Periodicity is often a difficult criterion to apply, however, because some property can only produce fruits once, or irregularly.

44. Frédéric ZENATI, *Les biens*, Paris, Presses universitaires de France, 1997, par. 71, 77. The meaning of the word “substance” can be difficult. Does substance refer to the material condition of property, to its value, to its attributes, its uses or its destination? Furthermore, in cases where the property generating the fruits is perishable, every taking diminishes the capital value of the property as seen over its lifetime.

45. Article 910(1) C.C.Q.

46. There are two criteria at play here. It may be that shearing wool from a sheep, or stripping bark from a cork tree produces a physical alteration to the initial property, but in both cases the detached property can fully regenerate. Hence, while

that is, are part of the capital asset in question under article 909 C.C.Q. In addition, the idea of a fruit can only be understood through time, because the distinction between fruits and products largely depends on whether the severed property can be regenerated. But this merely postpones the question. At some point, the continual scraping of soil from a sod farm becomes less the harvesting of a fruit (the grass), and more the diminution of capital. So too, at some point the “harvesting” of animals from a hunting ground becomes sufficiently intensive that it diminishes the capital.⁴⁷ The idea of fruits thus begins with the idea that property is dynamic. But, like the right of use, the distinctive character of fruits is that it presupposes a continuity of the initial right.

21. The notion of accession (and its inverse, de-accession — or the material separation of pieces from a pre-existing object of property) also imagines property as dynamic. Land changes because things get attached to it. These changes may be natural and not presuppose land as anything other than inert — alluvium, the falling of meteors, landslides. Natural accession may also involve living things — the spontaneous propagation of plant species (flora) and wild animals (fauna).⁴⁸ Accession may result from human action: the cultivation of both fauna and flora; the building of physical objects. Physical objects themselves may also benefit from accessions, invariably through human action, but sometimes naturally, as when fungi attach themselves to trees, or parasites attach themselves to animals, or mould attaches itself to furniture.

the C.C.Q. speaks of change to substance, this should be understood as a permanent material change where regrowth or regeneration will not occur.

47. Here also there are two criteria at play. It is not sufficient that the property extracted be of a type that is periodically produced and that will regenerate, say, daily, weekly, monthly or annually. The intensity of the extraction must not degenerate the source of the fruit. For example, sap can be taken from a tree — a seemingly regenerative source — but such tapping also affects its lifespan and can, with time, cause it to dry out. See Charles CROIZAT, *La notion de fruits en droit privé*, Paris, Librairie Dalloz, 1926, p. 65.

48. While article 934 C.C.Q. considers animals in the wild to be *res nullius*, and therefore capable of appropriation by the owner of the land upon which they are found, article 989 C.C.Q. deals with domesticated animals that roam onto one's property, and places a duty on the owner of the property to allow the owner of the animal to retrieve them. The owner of land on which the errant domesticated animal is found may only appropriate the animal if its original owner has abandoned the search for it.

Finally, there may be accessions to incorporeal moveables, as when intellectual property is expanded, or a particular additional benefit is attached to a debenture or a share certificate. In all these cases, the dynamic dimension of property comprises a rupture because the additional property changes the substance of the initial property to which it is attached.

22. One might, therefore, plot the imagined possibilities for actions and relationships with respect to property in the C.C.Q. in a four-cell table, as follows.

	“static” dimension	“dynamic” dimension
Continuity	usus	fructus
Rupture	abusus	vis attractiva

23. With this matrix in view, it is possible to discern the meaning of the right to fruits in each of its various material and intellectual contexts, comparing the notion especially with the other dynamic prerogative attaching to rights in property — the *vis attractiva* (and its converse, the notion of detachment or products).

3. FRUITS OF THE VINE (*FRUCTUS NATURALES*)

24. Genesis I, verse 11 recalls elementary biology: “... fruit trees bear fruits after their kind”. From this biological conception of fruits derives the first approximation of the legal concept of fruits — fruits of the vine. Such fruits comprise material things spontaneously produced by flora through the ripening of the ovary — apples, plums, oranges, etc. Fruits also comprise material things produced by flora that are not biological fruits: these may be naturally occurring as in vegetables, pseudocarps, leaves, stalks, dead branches that fall from trees, or may arise from human activity, as in the blooms and cuttings of garden perennials, bark for cork, sap for maple syrup, or limbs of living trees that are cut for manufacture.⁴⁹ While most such flora is attached to land, the same principles of characterization apply to potted plants and trees, and other flora not attached to land such as hot-house vegetables.

49. For an investigation of the corporeal aspect of fruits in French law, see in particular Charles CROIZAT, *La notion de fruits en droit privé*, *op. cit.*, note 47.

25. Of course, the moveable property generating the fruits need not be flora, but may be fauna. Hence, milk from a cow, manure from a horse or pig, urine from a pregnant mare, antlers from a moose, semen, and honey from a swarm of bees are also fruits. By extension, animal products that are not naturally severable can also be fruits: wool from a sheep, horns from a bull, ova extracted from a ewe, blood, and genetic material.

26. But even this expansion embraces only a portion of the category “fruits of the vine”. Fruits need not be limited to the naturally re-generating parts of flora or fauna. So, for example, most flora — whether trees, bushes, and crops, and whether spontaneous or resulting from the working or cultivation of land — is itself the fruit of land. In other words, corporeal moveable property that produces corporeal moveable fruits may itself be a fruit of a corporeal immovable, and consequently an immovable under article 901(2) C.C.Q.⁵⁰ Animals, insects, birds and bees that naturally inhabit land, or fish that naturally inhabit appropriated rivers, streams, lakes and ponds, and worms, slugs, fungi, mould and parasites that are found in or under the ground also might constitute corporeal moveable fruits of the immovable, although they are usually considered as accessions.⁵¹ Sometimes a distinction is drawn between fish in ponds, wild birds and small animals like rabbits, on the one hand, and the fish of rivers, lakes and streams and large wild game on the other.⁵² In this understanding, the latter category of fauna is *res nullius*, and must be appropriated by an owner. They are acquired by

50. See D.-C. LAMONTAGNE, *Biens et propriété*, *op. cit.*, note 8, n° 88. While trees and crops are immovable, they are no less fruits (article 910(2) C.C.Q.). Of course, the fruit falling onto one's land from the tree of a neighbour belongs to the neighbour (article 984 C.C.Q.). But, if that fruit grows into a tree, the fruit would no longer belong to the neighbour, but would be an accession to one's own land.

51. The case of mould, fungi and parasites is most interesting. While other animals (including worms and slugs) can have an existence separate from the land and can detach themselves from the ground in which they burrow, mould, fungi and parasites are more like flora in that they normally require severance through human intervention.

52. Under article 428 C.C.L.C. such animals were considered to be part of an owner's right by accession (as long as they were not attracted to the property by fraud or artifice), although article 448 C.C.L.C. considered such animals as fruits accruing to a usufructuary. Article 989 C.C.Q. poses a rule similar to article 428 C.C.L.C. although in a slightly different formulation.

occupation (article 934, 935 C.C.Q.) and not by accession (article 948 C.C.Q.).⁵³ In all events, once acquired, like trees that grow from apples falling from a neighbour's tree, they become fruits of the immovable.

27. While these standard examples envision fruits as arising from living things, the more general conception imagines even inanimate property generating fruits that are themselves inanimate. Kinetic energy (that is, not electricity) derived from the head of a mill-pond or from a windmill is a fruit, as is dew on a lawn, snow, ice and rainwater.⁵⁴ More generally, because all types of property can generate other objects for human profit without any diminution of the initial property, the category need not be restricted to living corporeal property. This said, however, inanimate objects typically do not spontaneously generate or regenerate themselves, although the process of natural composting may be an exception. Usually some kind of human intervention by way of specification is required, as in the case where glass is recycled into paving material or paper is recycled into cardboard. In the normal case, inanimate objects generate fruits in the form of revenues paid as rent.⁵⁵ However, should the rental, license payment, or dividend be paid in kind — for example, by the transfer of an object, or the rendering of a service — there is an argument that the payment or performance will be a fruit, rather than revenue.⁵⁶

53. See Roger SAINT-ALARY, *Rép. civ. Dalloz*, v. *Accession*, n^{os} 132–141.

54. Of course, unlike most corporeal fruits of corporeal moveable property, each of these “fruits” is not of the same “kind” as the initial property. Nonetheless, the requirement of human intervention — to build a dam and waterwheel or a windmill, to collect dew, rainwater, snow or ice — does not disqualify their characterization as fruits. Moreover, unlike the drawing down of an aquifer or a gas well, the property producing the fruit is not normally diminished by the appropriation.

55. According to article 910(1) C.C.Q., derivations from capital and other rights constitute revenues. Historically, the civil law characterized property derived from the rental of corporeal property, the licensing of incorporeal property, the interest on money, and dividends on shares, all to be “civil fruits”. For discussion, see Michele GRAZIADEI, “Tuttifrutti”, in Peter BIRKS, Arianna PRETTO (eds.), *Themes in Comparative Law in Honour of Bernard Rudden*, New York, Oxford University Press, 2002, 121.

56. Article 910(3) C.C.Q. provides that “Revenues comprise sums of money yielded by property such as rents, interest and dividends”. The use of the word “comprise” rather than “includes” appears to limit the class of revenues to money. See Maxime B. RHÉAUME, “Droit des sûretés : le gage de valeurs mobilières par un

28. The various examples just reviewed constitute the textbook case of fruits as imagined in article 910(1) C.C.Q. But, if one imagines the “substance” of the initial asset as its value rather than its materiality, then it is harder to differentiate between milk drawn from a cow (a fruit) and a kidney removed from a cow (a product). A milking cow aged six years is much more valuable than a milking cow aged fifteen years. In large measure the difference in price is a reflection of the lesser number of productive years remaining for the fifteen-year old cow. That is, the future potential to generate fruits is part of the capital value of the cow. When this capital is realized on an ongoing basis through milking, the passage of time alone diminishes the value of the cow. A similar conclusion follows in the case of an orchard. Ultimately fruit trees become unproductive and need to be uprooted and replanted. The value of the orchard thus depends in part on a calculation of the number of productive years remaining. Still again, the value of bond or debenture is partially determined by how many years of interest remain payable. If, for example, the bond yields a higher than market rate, the longer its life, the greater its capital value.

29. Given these considerations, it would seem that the distinction between fruits of the vine and products also depends, in addition to the criteria of periodicity, absence of change to substance, and regeneration, on the factor of time. As long as the first three criteria appear to be present within a relatively lengthy time frame — even if, at the end of the day, they are not — the new material object generated by corporeal property will be considered to be a fruit and not a product.⁵⁷

4. FRUITS OF THE LOINS (THE INCREASE OF ANIMALS AND CROPS)

30. Genesis I, verses 28-30 remind us that every tree bearing fruit bears seeds as well. Most material fruits, then, have two dimensions. First, they may be detached and appropriated as

particulier”, (1997) 31 *R.J.T.* 843, n° 52 for the argument that security can extend to dividends made of cash, but not of those made of shares.

57. See S. PIEDLIÈVRE, *loc. cit.*, note 43. See C. CROIZAT, *La notion de fruits en droit privé*, *op. cit.*, note 47.

separate objects of property (whether naturally as when apples fall from trees, or by harvest). In this dimension, the value of the fruit lies in its enjoyment, consumption or disposition. But there is a second dimension to many of the fruits of flora. The fruit of the tree is also the seed from which a new tree may be grown. In these cases, the fruit is transformed and becomes a new capital asset capable of generating new fruits.⁵⁸ Whether the regeneration is natural (as when trees, grasses, grains and tubers propagate themselves), or results from human action (as in the case of crops, cultivated orchards, or plantations) is not material to determining if the regenerated fruit is or is not a new capital asset.⁵⁹

31. Slightly different considerations arise when the focus is on the fruits of fauna. Normally one imagines the fruits of animals as products that are grown and regenerated in, or on, or from, the animal and extracted either naturally (milk, manure, etc.) or through human intervention (blood, wool, etc.). As with some of the fruits of flora, most of these faunal fruits are not themselves reproductive. They are meant to be severed, consumed or sold. But some fruits of fauna — the seed of animals — are reproductive. As a rule, however, the seed of animals is not consumed as such, although caviar and the eggs of fowl are notable exceptions. Still, the semen of bulls or prize horses, the ova of prize cows and mares are marketable fruits. In these cases, as with trees and crops, the seed can lead to new capital, itself capable of generating fruits.

32. For this reason, the increase of animals — chicks, calves, foals, piglets, minnows — is deemed, like the increase of trees and plantations, to be a fruit.⁶⁰ In theory, as with the increase

58. See article 909 C.C.Q. Not all “material fruits” have this regenerative capacity. Bark for cork, leaves for compost, fallen tree branches, and so on, can only be fruits in the first sense. On the other hand, through human agency some products of flora — for example, cuttings from flowers — have regenerative capacity even though neither are biological or legal fruits.

59. It is also worth considering where a crop grown from a seed should really be characterized as a fruit. If the crop is grown in trays, it will always be moveable, and the grain or tuber or fungus is simply the proceeds of the seed. Why then should grains, or tubers or fungi grown in a field be considered fruits of the immoveable, rather than as proceeds of the seed?

60. A particular difficulty of this characterization arises in the case of animal tissue. Cell lines can naturally reproduce themselves, and in some cases, such as cloning, they may actually generate another animal.

of flora, this conclusion should apply whether the fruits of fauna are natural or arise through human activity.⁶¹ Moreover, article 910(2) C.C.Q. confirms that second and third generation fruits, *ad infinitum*, are nonetheless fruits even if, in relation to fruits that they generate, they may also be considered as capital.

33. What of inanimate things that are neither flora, nor fauna, nor fungi, nor parasites, nor viruses? As noted, it is difficult to see how an inanimate object could produce natural fruits or even material fruits, in the strict sense, consequent upon human action. Nonetheless, the civil fruits or revenues of inanimate objects and of incorporeal moveables may be reinvested, thus becoming a capital asset capable of producing second and third generation civil fruits (article 909 C.C.Q.).⁶²

5. FRUITS OF LABOUR (*FRUCTUS INDUSTRIALES*)

34. The above discussion suggests that certain traditional distinctions among types of fruits — for example, between natural, industrial and civil fruits — may need to be adapted for the world of modern commerce. Today it is common to claim that these distinctions are unhelpful and that the Québec recodifiers were right to abandon them in their reformulation of the traditional triptych of fruits into the two categories of article 908 C.C.Q. : fruits (embracing both natural and industrial fruits) and revenues (embracing most of what were previously denominated as civil fruits).⁶³

35. Depending on how the distinction between natural and industrial fruits is understood, however, and the uses to which it is put in attributing the prerogatives of property, it may still serve a useful analytical purpose in relation to agricultural

61. That is, there should be no difference between the case where milk or wool is derived from wild animals or as a consequence of animal husbandry. Likewise, it should not matter whether a bull stands stud or a mare in heat is impregnated, and the case where either the semen or the ova are extracted and insemination is artificial.

62. On whether such second generation “civil fruits” are truly fruits, see Madeleine CANTIN CUMYN, *De l’usufruit, de l’usage et de l’habitation*, Montréal, Société québécoise d’information juridique, 1990.

63. On the distinction in France today, see Stéphane PIEDLIÈVRE, *Rép. civ. Dalloz*, v. *Fruits*, n^{os} 30–33.

activities. Consider the following hypotheses relating to trees and crops. Presumably if a natural forest is being cut for lumber or firewood in a manner that maintains its regenerative capacity, this should not be seen as different from the harvesting of a spruce plantation for pulpwood or Christmas trees. Even where a tree plantation is clear-cut and replanted, the forest may well be considered a fruit in the same manner that the fall harvesting of grain crops presumes a clear cutting followed by replanting. The distinction between fruit and product depends less on the character of the object (a tree as opposed to stone from a quarry) and the extent of the harvesting (whether selective or clear-cutting) than on the intention of the harvester and the time-frame required for regeneration.⁶⁴

36. Similarly, the harvesting of ordinary food crops may amount to the collection of fruits or the diminution of capital. The gathering of wild rice or blueberries can be no different than the commercial harvesting of rice paddies and cranberry ponds. Or again, the harvesting of truffles may be little different from the harvesting of mushrooms grown in trays in an industrial plant. But, unlike the annual non-commercial gathering of berries or the commercial harvest of orchards where the fruits regenerate on their own, the annual harvest of wheat or corn destroys the stalk. As in the case of clear-cutting of forests, replanting is required, since by contrast with the partial harvest of a crop field, natural re-seeding normally does not occur.⁶⁵ Many of the same considerations apply to the industrial production of fauna. The harvesting of deer and other game, of wild fish and fowl will reach the point

64. In the case of industrial tree-farms and crops, moreover, there is the additional question whether repeated harvesting will ultimately exhaust the soil. Here, the question whether harvesting amounts to the taking of a fruit or a product (the productive capacity of the soil) will depend less on the extent of the taking than on its frequency and whether the harvester takes other steps to ensure that the capital asset (the land) retains its value.

65. The nature and scale of the process of modern commercial logging of natural growth trees, followed by the replanting of seedlings in a natural environment, makes it undoubtedly a diminution of capital. Softwoods take approximately 70 years to reach maturity, and there is no guarantee that clearcuts will regenerate into healthy forests: clear-cutting may qualitatively and lastingly affect the "substance" of forest ecosystems. See Herman E. DALY, *Beyond Growth: Economics of Sustainable Development*, Boston, Beacon Press, 1996.

of being the “taking of a product” rather than a fruit when the capacity of the herd, school or dove-coat to regenerate itself is compromised. By contrast, the wholesale slaughter of chickens, pigs, cattle, and farmed salmon may constitute no more than the harvesting of a fruit if the flock, herd or school is re-bred. In these cases, as in the case of flora, the crop results as much from the investment of human energy as from the action of nature.

37. The distinction between natural and industrial fruits has most import where the owner of land is not the same person as the one who “works the soil”.⁶⁶ Indeed, much of the rationale for the civil law characterizing the prerogatives of ownership as *usus*, *fructus* and *abusus* can be found in the need to determine who, as between owner and occupier, should profit from the utilities that land produces. This determination is especially relevant in cases where the occupier has possession with the consent of the owner — as in the case of a usufructuary or a lessee. What the common law sought to accomplish through its doctrines of time-limited estates in land, the civil law achieved by first identifying and then allocating the conceptual benefits of corporeal immoveables.⁶⁷ In the end, the question whether a tenant of land who plants, nourishes, fertilizes crops, but whose lease expires prior to harvest should have a right in the crops different than the right of the occupier of land that contributes nothing to the production of natural fruits such as apples or blueberries cannot be decided by determining if the crops do, or do not, meet the conceptual requirements of fruits. The point applies equally to animals. Whether a tenant of land who breeds and fattens animals for slaughter, but whose lease expires before the animals are sold to an abattoir should have a right in the animal different than the right of an occupier that appropriates naturally produced manure, wool or milk likewise does

66. F. ZENATI, *Les biens*, *op. cit.*, note 44 observes that while (especially in situations involving immoveables), a distinction may be drawn between, for example, fruits of a natural orchard, and crops (the former spontaneous, the latter cultivated), a much more powerful distinction may be drawn between fruits that arise from the work of the owner, and those that arise from the work of someone else who does not own the land.

67. On this point, see William Warwick BUCKLAND, Arnold Duncan MCNAIR, *Roman Law and Common Law: A Comparison in Outline*, (2nd ed. by F.H. LAWSON), Cambridge, Cambridge University Press, 1965.

not depend on the physical attributes of the property that was produced.⁶⁸

38. Not all natural fruits arise spontaneously from flora or fauna. Some derive directly from inanimate objects or things. Methane gas captured from a swamp, water drawn from a replenishing aquifer, mould grown for use as penicillin, and the severing of some culture from a mass are all examples of regenerating inanimate property. In each of these cases, the exploitation of the fruit involves some combination of human action and natural process. While the extraction of oil and gas, as opposed to the capture of naturally occurring methane or the drawing of water from an aquifer, appears to be a diminution of substance and therefore not a fruit, in the long run (in the instance millions of years) oil and gas will be regenerated just like swamp gas and the aquifer. Here, once more, the distinction has less to do with the product, or even its regenerative capacity, than with the extent to which, in fact, the extraction is disproportionate to the regeneration.

39. There is yet another dimension to the idea of the fruits of one's labour that arises when the fruits are not connected to a separate piece of property. Traditionally, the civil law conceives the fruits of labour in the form of an object that has been manufactured to be an instance of adjunction or specification, and not a fruit. The claim to the transformed object is not a fruits claim, but an accessions claim, and the determining criterion is the relative value of the labour and the transformed object.⁶⁹ But frequently labour is exchanged for wages, salaries, or even property received in exchange for services rendered under a barter or share-cropping agreement. Classically, in order to be characterized as fruits, the revenues and other benefits consequent upon the expenditure of labour must result from the property itself, rather than from

68. The C.C.Q. addresses these questions by elaborating a set of default rules in the chapter of usufruct that only contingently relates to whether or not property is a fruit. The owner's right to all that comes from the land (art. 949 C.C.Q.) is trumped by a usufructuary who gains control of the fruits that have been *cultivated* during its possession of the land (art. 1126 C.C.Q.) or even a mere possessor who has worked the land (articles 931 and 958 C.C.Q.). Moreover, under article 1129(2) C.C.Q., a usufructuary has a right to compensation for a crop it may have left on the land before the expiry of the usufruct.

69. See article 972 C.C.Q.

the exchange value of labour. The labour must be accessory to the production of property and the revenues result from a juridical act that provides for the use or enjoyment of property.⁷⁰ While, in principle, this should be an easy criterion to apply (especially where the property at the source of the fruits is corporeal), the matter is much more complex when the property to which the labour is applied is itself incorporeal and the resulting fruits are not industrial but civil — that is, revenues. To take one example, is the money I generate from charging an admission price to hear a recording I have made and which I play as a matter of course in my own home — having invested in finding suitable furniture and installed appropriate lighting — a civil fruit (revenue) under article 910(3) C.C.Q.? Here there is incorporeal property — the sound — the expenditure of human labour, and revenue generated in consequence. To determine whether this is more like receiving a wage for singing a song, or receiving a rent for leasing an automobile is the issue next considered.

6. FRUITS OF INVESTMENT (*FRUCTUS CIVILES*)

40. As has already been observed, the category of property comprises a panoply of items besides things: not just things produce fruits, and not just the right of ownership commands them. A person occupies “Crown land” under a certificate of occupation. That person is not an owner, and yet may benefit from the fruits produced by the occupied land. By definition, the same entitlement accrues to a usufructuary (article 1126 C.C.Q.). In some cases, fruits of a thing may also flow to a lessee, to a licensee and even to a mere possessor (article 931 C.C.Q.). Of course, in the traditional framework, only corporeal property is capable of generating natural and industrial fruits. Thus, even though the usufructuary of an asset that generates natural or industrial fruits may have a right to the fruits so generated, the extension of the usufruct to these assets is not itself a fruit of the right of usufruct.

70. See Stéphane PIEDLIÈVRE, *Rép. civ. Dalloz*, v. *Fruits*, n° 15; Sylvio NORMAND, *Introduction au droit des biens*, Montréal, Wilson & Lafleur, 2000, p. 61–62.

41. However, lesser real rights in corporeal property, personal rights upon things, and even creances can, just like the right of ownership itself, generate civil fruits or revenues. So, for example, unless a usufructuary is disabled from transferring, further dismembering, or leasing its right, it may do so and receive payment as a counter-prestation.⁷¹ If the divestment be total and permanent, the price received is clearly capital; if the scope of the divestment is less than the entirety of the titulary's rights — either in time (as when the usufructuary of a 99-year usufruct assigns the right for, say, 30 years) or in substance (as when the usufructuary sub-grants a right of use, or leases the property that is the object of the usufruct) — the price will, under article 910 C.C.Q., be conceived as a revenue. It would appear, then, that all forms of alienable patrimonial property, including first and second generation fruits and revenues, can give rise to civil fruits — or at the very least what the C.C.Q. denominates as revenues.

42. Article 910(3) C.C.Q. imagines revenues as sums of money having their source in (1) the rent of a thing, (2) interest, and (3) dividends other than those involving the distribution of capital of a legal person, as well as (4) sums received on resiliation or renewal of a lease or prepayment (and like operations). These four transactions are considered in turn.

43. A first question is whether money received from the rental of a thing, or a right, meet the criteria that define fruits. Recall that natural and industrial fruits of flora and fauna typically arise without the titulary of rights in the property producing the fruits having to surrender any prerogatives attaching to its right or suffer “any alteration of its substance ...”⁷² This is not really the case when land, flora or fauna are subject to a dismemberment or a lease. Where the owner of land grants a right of usufruct by onerous title, or where an orchard or a dairy herd is leased, the rent received by the owner is not newly-generated property that does not

71. Article 1135 C.C.Q.

72. Of course, as noted, if substance is taken to mean value rather than material dimension, all extractions of fruits (and especially all extractions from property that is capable of generating fruits for only a limited time — milking cows, vines, “perennial” plants — will partially diminish the capital as well.

diminish the substance of the owner's right. It is, rather, the exchange value for the loss of enjoyment of the property during the period of the usufruct or lease. So also, if I receive money for leasing an inanimate object — say, my automobile — article 910(3) would characterize the rents I am paid as revenue.⁷³ If, however, I receive the use of a motorcycle in return, it is difficult to conceive this right of use as revenue. Here an analogy can be drawn with the distinction between the contract of sale and the contract of exchange. If the rent paid for my car is a pair of tickets to a hockey game played by “le Canadien de Montréal”, I have property that is not exactly a natural or industrial fruit and not exactly revenue.⁷⁴ The transaction looks more like the disposal of part of a capital asset and what is received in exchange looks more like a price than a “fruit ... derived from the use of capital”.

44. There are, however, situations involving revenues — for example, interest earned on the loan of money — that seem closer to being the fruits of an investment rather than the price of capital. Yet, like the rental of corporeal property, they can also be seen as an indemnity corresponding to the loss of enjoyment — that is the opportunity cost of an alternative deployment of the capital sum lent. In addition, the civil law treats the loan of money as a “simple loan”. The borrower becomes the owner. Fruits accrue to the owner. In what logic therefore, can interest paid on the loan of money be considered a civil fruit (revenue)?⁷⁵

45. A particular problem might seem to arise in the case of a negotiable instrument that embodies a payment right. For example, a promissory note for a sum certain that includes the repayment of both capital and interest is inanimate corporeal

73. Again, this characterization is problematic, since at least some of the lease payment is meant as compensation for the ordinary capital depreciation of the leased automobile. One may speculate that it is precisely because money received in this case does not fit the general notion of a fruit (that which is generated without diminution of capital), that the C.C.Q. prefers the expression “revenue” to “civil fruit”.

74. See M.B. RHÉAUME, “Droit des sûretés : le gage de valeurs mobilières par un particulier”, *loc. cit.*, note 56.

75. The characterization of money received from a winning lottery ticket is not free from difficulty. Since the prize is a return on a speculative capital investment, most authors consider it to be capital and not a fruit. See F. ZENATI, *Les biens, op. cit.*, note 44.

property, but as an interest-bearing obligation it generates fruits in the same form as the property itself. One might therefore conclude that while the payment is a “sum received as interest” it has a close resemblance to natural fruits comprising the increase of animals: namely, the case where a corporeal moveable generates another corporeal moveable of the same kind. Nonetheless, even if in this hypothesis the fruit of the investment is characterized neither as revenue nor as a civil fruit more broadly, but as a natural fruit, the same issue arises, regardless of whether the promissory note is just a mechanism for repaying a loan or constitutes an independent payment obligation. In both cases, the interest paid reflects the opportunity cost of alternative uses of the principal sum and, therefore, constitutes the price of a partial alienation of capital.⁷⁶

46. Money and other benefits generated by modern financial instruments are often difficult to characterize. In general, dividends are considered to be a third category of revenues, unless they represent a distribution of the capital of a company.⁷⁷ Undeclared dividends, or dividends held in reserve, are fruits (revenues) by anticipation since until they are declared and payable they have no separate existence.⁷⁸ When dividends are distributed to shareholders as a reduction of capital — for example, a special dividend declared upon the sale of an asset or a subsidiary — the dividend is capital and not revenue. Similarly, the distribution of corporate reserves will be either a capital sum or revenue depending on its effect on the capitalisation of the company and whether the payment originates in retained earnings.⁷⁹ It might be thought that the dividends reflecting retained earnings arising from pure profit should be considered as fruits. But since the value of shares reflects, at least in part, the retained earnings of a corporation, any distribution of retained earnings affects the capital value of the shares.

76. A similar issue arises where the instrument is currency (say a specifically identified \$1000 bill that is meant to be returned in specie) rather than a mere debt obligation.

77. Article 910(3) C.C.Q.; M. CANTIN CUMYN, *De l'usufruit, de l'usage et de l'habitation*, *op. cit.*, note 62, n° 48.

78. Stéphane PIEDELIEVRE, *Rép. civ. Dalloz*, v. *Fruits*, n° 25.

79. M. CANTIN CUMYN, *De l'usufruit, de l'usage et de l'habitation*, *op. cit.*, note 62, n° 49; Stéphane PIEDELIEVRE, *Rép. civ. Dalloz*, v. *Fruits*, n° 24.

47. Where dividends are paid in kind, characterization depends on the nature of the shareholder's rights. Should the dividend consist of additional shares representing a recapitalisation of profits, the shares are capital, but should the shareholder have the option of receiving cash or additional shares, the shares would be revenue.⁸⁰ Other shareholder benefits, such as the right to subscribe to additional shares at a discount, or warrants and options for future share subscriptions, are generally thought to be rights in the nature of capital, although if constituted as an alternative to a dividend distribution, they could be exercised, and the shares acquired, as fruits.⁸¹ Presumably the same conclusion should be reached if the dividend were to comprise products of the company (for example, inventory of a distributor of consumer products that has decided to change product lines). The same difficulty arises in the case of accessory rights such as the right to vote a share. Under article 910(1) C.C.Q., any right that tends to increase the fruits and revenues of property — whether or not these are generated by the property itself — is a fruit (or revenue). As a result, even if these collateral rights are not regularly periodic and even if they are typically expressed as an attribute of the share itself, they will be considered as fruits.⁸²

48. Distinguishing fruits from capital is often quite difficult where complex financial instruments are involved. Imagine a right to receive a supplement or bonus on a financial instrument depending on conditions such as foreign exchange rates or inflation. If these bonus payments are stipulated as a supplement to interest, or to make up for a deficiency in the real rate of interest received, they are probably fruits; if, by contrast they are seen as an addition to capital to ensure its sufficiency

80. Similarly, were the distribution of assets in an income trust, a mutual fund, a securitization agreement characterization would depend on whether the payment reduced the capitalization, or was just an alternative method of distributing profits. See Stéphane PIEDELIÈVRE, *Rép. civ. Dalloz, v. Fruits*, n° 27.

81. See Stéphane PIEDELIÈVRE, *Rép. civ. Dalloz, v. Fruits*, n° 28. This said, article 909(2) C.C.Q. appears to characterize all such subscription rights as capital.

82. The conundrum is not just related to shares and financial instruments. Would the right of voting that attaches to the ownership of land in a municipality, or the right to vote at the assembly of co-owners of a condominium constitute a fruit? To the extent the right to vote attaches to the property and is not personal to the owner of the property, it should be a fruit under article 910(1) C.C.Q.

over time, they actually become part of the property itself and should be characterized as capital.⁸³

49. A final category of revenue envisioned by article 910(3) C.C.Q. is “sums received by reason of the resiliation or renewal of a lease or of prepayment.” Normally, money received as an indemnity — for example, damages in civil responsibility or for breach of contract — is characterized as capital: just like the case of insurance and expropriation payments, and the *soulte* due upon a partition, these sums are subrogated capital.⁸⁴ By the same logic, sums due upon the resiliation or renewal of a lease are either (in the first case) damages, or (in the second case) the value of the opportunity cost of foregone alternative deployments of the leased property in the hands of the lessor. Money received as prepayment of a lease is simply an advance on lease payments and should be treated in the same manner as the rental itself. To characterize these as revenues is consistent with the characterization of rental payments themselves as revenues, even though both are actually the price of a partial disposition of capital.⁸⁵

50. The characterization of revenues in the C.C.Q. illustrates several difficulties with the concept of civil fruits. Because revenues in the form of rents, interest and dividends appear to be additional property generated by an asset, and are typically received on a periodic basis, they can easily be assimilated to fruits. Yet, in almost every case, they reflect a depreciation in capital.⁸⁶ To maximize the flexibility of financial instruments, there may be a certain logic to differentiating capital from

83. See Stéphane PIEDELIÈVRE, *Rép. civ. Dalloz*, v. *Fruits*, n° 12.

84. Article 909(1) C.C.Q.

85. The point is most apparent in the case of agreements such as financial leases (articles 1842-1850 C.C.Q.) where the period of the lease extends for the useful life of the object leased, and the accumulated rental payments are equivalent to what would have been received under an instalment sale agreement. On this general point, see R. Wilson FREYERMUTH, “Rethinking Proceeds: The History, Misinterpretation and Revision of U.C.C. Section 9-306”, (1994-1995) 69 *Tulane Law Rev.* 651, 659-666.

86. To recall, for rental property, because most moveables depreciate with use, the rental price is meant to capture not only the value of the owner's foregone use, but the depreciation. In the case of interest on money, the payments received combine the time-value of money (the opportunity cost), a hedge against the risk of default, and a premium for the effects of inflation. As for dividends, these also represent a return on investment, the opportunity cost of which is typically calculated with a view to the

income. Whether the law should do so by deploying the concept of revenues (and visiting that concept with an intellectual content that is significantly different from the concept of fruits which, by way of the notion of civil fruits, the concept was derived) is, however, questionable. To assimilate revenues to “civil fruits” generated by capital, rather than to the idea of “proceeds” of a disposition only continues to confuse analysis of what, in its ordinary acceptance, is a fruit.⁸⁷

7. FRUITS OF THE TREE OF KNOWLEDGE (REVENUES)

51. The analysis of different dimensions of the associated concept of fruits and revenues in the preceding sections takes for granted the standard conceptualization of property in Book IV of the *Civil Code of Québec*. But much property today fits uneasily into the codal frame — typically because, whether manifest in corporeal or incorporeal form, it derives primarily from the human intellect. Four contemporary developments illustrate the central challenges: (1) genetic engineering; (2) moral rights; (3) recycling; (4) odological conceptions of immoveables.⁸⁸ Their common characteristic is that the “property” in issue can grow, reconfigure and replace itself *ad infinitum* with no apparent loss of capital. While regeneration has always been considered fundamental to the definition of fruits, these new categories represent genuine “foreverness” in a way that conventional interpretations of the requirement that the extraction of a fruit involve “no permanent alteration to the substance” of the generating property do not.

extent the shares themselves are likely to appreciate or depreciate. Lease prepayments, or sums received upon resiliation or renewal are simply advances on the rental—either as the opportunity cost of the object as indemnities for anticipated depreciation. In other words, in all cases listed in article 910(3) C.C.Q., the sums received as revenues do not match the criteria by which fruits are distinguished.

87. See the discussion in M. GRAZIADEI, “Tuttifrutti”, *loc. cit.*, note 55.

88. É. LE ROY, “Odologie, topocentrisme et géométrie, trois représentations d’espaces générant des modes complémentaires de sécurisation foncière et de maîtrises territoriales”, *loc. cit.*, note 10, 9. An odologic conception takes into account the experiential nature of the property, such that a single piece of land, for example, can be the subject of overlapping experiential rights of ownership. The author bases the idea in nomadic societies which define immovable moveable property not as a static element, owned by a single party, but rather as a nexus of many types of ownership, based on the possible routes taken over the land.

52. One may begin with genetic material taken from plants, animals and human beings. A first point is that the civil law is generally reluctant to allow traffic in human tissue — whether body parts like kidneys, lungs, hearts, livers, and so on.⁸⁹ While article 25 C.C.Q. ostensibly permits only the gratuitous alienation of a body part, in practice many may be made part of a commercial exchange. Moreover, there has never been any prohibition on the commercialization of regenerative body materials like blood, semen, hair, milk and so on.⁹⁰ Normally extracted genetic material — from hair, fingernails, skin, and saliva — is easily regenerated within the body and would, as material object, be conceived as a fruit. This said, what matters most is not the source or characterisation of the genetic material, but the reason for its collection and the use to which it will be put.

53. Unless an organ, there is little market for human tissue as such. Genetic material is valuable for the information it contains — the genetic code. Hence the questions: is the code severable from its physical basis, and, if so, what is the fruit — the material or the genetic code?⁹¹ Even in the case of animals and plants, the distinction between fruits and capital (products) elaborated in articles 908-910 C.C.Q. is not of much help in addressing the policy questions relating to ownership and other rights in whatever is produced — for example, a cloned sheep, or a mouse that is bred with certain characteristics that make it suitable for medical research, or a particular disease-resistant cell, a “terminator seed” that cannot reproduce itself — from genetic material.

54. To dissociate the information in the genetic code from the cell that hosts this code is to recognize that the “fruit” in question is knowledge. Knowledge is a species of moral right,

89. Article 10 C.C.Q. states that every person is “inviolable”. The personality rights held by all (art. 3 C.C.Q.) are such that they may not be renounced (art. 8 C.C.Q.), therefore making these extra-patrimonial rights *extra commercium* (art. 2876 C.C.Q.).

90. Marie HIRTLE, “Civil Law and the Status of Human Genetic Material”, in Bartha Maria KNOPPERS, Timothy CAULFIELD, Thomas Douglas KINSELLA (eds.), *Legal Rights and Human Genetic Material*, Toronto, Emond Montgomery, 1996, p. 102.

91. Moe LITMAN, “The Legal Status of Genetic Materials”, in Bartha Maria KNOPPERS (ed.), *Human DNA: Law and Policy: International and Comparative Perspectives*, The Hague, Kluwer International, 1997, p. 19.

and its economic utilities are typically captured through statutory regimes governing patents, trademarks and copyrights. But not all moral rights fall within these regulatory regimes. To the extent these are not recognized in patents, trademarks or copyright legislation, or to the extent their titular chooses not to avail himself or herself of one of these statutory regimes, how should the right and its prerogatives be characterized? All acknowledge that a moral right can be licensed. Under article 909(1) C.C.Q., if the right is alienated, the sum received is capital. By implication, if the right (for example, my image) is merely licensed the price received from licensing its reproduction is revenue. But the licensing of a moral right is, in this respect, no different than the lease of corporeal property — it constitutes a partial alienation of the titular's rights and consequently does not exactly meet the criterion for characterization as a fruit.⁹²

55. A further complication flows from the fact that the fruits of moral rights may themselves be moral rights (that is, civil fruits as opposed to mere revenues). Imagine that a photographer takes my picture without my permission and then digitally enhances it in a manner I find pleasing. Should the enhancement be analogized to an industrial fruit — the production of new property without a diminution of capital through the application of human labour? If so, the enhancement is a civil fruit of which I, as titular of the capital (my image) am entitled to claim ownership, subject to reimbursing the photographer for his labour.⁹³ By contrast, since the moral rights are themselves only reflected in their product one might conclude that second and third generation

92. Not all moral rights can be licensed in this way. The moral right of a performer lies in the performance. Admission to a performance may involve the sale of a license, but here one is not normally in the realm of fruits, since the rent does not derive from property. See S. PIEDELIÈVRE, *loc. cit.*, note 79. Yet there will often be occasions where it is impossible to determine on what basis the money is received. Suppose I am known as a flamboyant painter. If I charge admission to my art studio where my paintings are on display, but where I am also performing (painting), is the admission price paid for my moral rights in the painting, or my moral rights in my performance?

93. In this case, article 931 C.C.Q. would apply by analogy and the right of the photographer to the new image would depend on whether the original image was taken with my consent or under colour of right (that is, in good faith) or without my consent (that is, in bad faith). Only in the former case do I lose my right to appropriate the fruits already produced.

civil fruits (that is, the new enhanced images as opposed to the reproduction fee paid by the photographer to manufacture them) are not really fruits at all, but are regenerated capital assets arising through an “alteration to the substance” of the initial image.

56. Of course, it is not just moral rights that can be transformed in this way. Through the notion of specification, the civil law has long addressed issues of transformation of corporeal assets by manufacture : wood into chairs, flour and sugar into cakes, resin and glass cloth into fibreglass, and so on.⁹⁴ Moreover, through doctrines of real subrogation, the Civil Code imagines that property can pass from one object to another — as in expropriation, or insurance indemnities, or the generation of heat, steam or electricity from burning fuel.⁹⁵ In these cases, the new property and any price that may be received on account of the new or transformed property is capital.

57. But sometimes, the transformation of corporeal property is partial — involving a combination of fruits and capital. Most frequently this occurs in cases of recycling. Imagine, first, the recycling of natural or industrial fruits. Where the stalks of crops are cut (as fruits of an immoveable) and then ploughed back into a field, or the manure of farm animals (as fruits of a moveable), what was once a moveable fruit is transformed into immoveable capital. It may be that, under article 909(1) C.C.Q. this recycling involves a re-investment of fruits although the product that results is really the fruit of knowledge and not the fruit of the vegetable or animal material.

58. Where the recycling concerns inanimate property, it will normally be the case that the new product is a product and not a fruit. For example, where paper or glass or plastic is recycled, not all of the initial property survives and so there is a reduction in substance. But where the recycling produces a new product that involves the adjunction of other fruits to extract certain properties of the recycled material, while leaving the substance undiminished (de-inking of paper is a good example) the new product is a fruit. These last examples

94. See articles 972–974 C.C.Q.

95. See articles 2675–2678 C.C.Q.

reinforce a point raised in connection with the characterization of complex financial instruments. Traditional concepts for allocating the prerogatives and utilities of property among different claimants are not well adapted to forms of property that depend on human agency and that involve the necessary projection and transformation of the right through time. In these cases a different concept, which reunites fruits and products in a single category based on destination imposed by the titular of rights in the initiating property is likely to be more effective in ensuring the optimal allocation of these economic and symbolic entitlements.

59. It is, of course, not just moveable property that is charged with symbolic freight and that is tributary to an owner's destination for it. Land, and especially land that has not yet been subject to commercial development (for example, a summer cottage passed through generations, or a traditional hunting or fishing site), also carries such symbolism. Indeed, for many aboriginal peoples, this symbolism is in fact what gives land (or territory) its meaning.⁹⁶ The law of the Civil Code adopts what might be called a geometric conception of land. Land may be charted, measured and mapped. Its physical space may be precisely identified, and its symbolization reduced to a claim of exclusivity over this space. By contrast, an odological conception of land is based on the experiences of those who traverse it. Land is not separable from the meaning that "owners" attach to their experience. In this perspective, fruits (whether flora or fauna) cannot be separated out from the land itself; there is no meaningful distinction between fruits and products, between moveables and immoveables. Land is as much about sovereignty as it is about ownership.⁹⁷

96. See the essays in Andrée LAJOIE (ed.), *Gouvernance autochtone : aspects juridiques, économiques et sociaux*, Montréal, Éditions Thémis, 2007; and particularly, Roderick A. MACDONALD, "Propriété, identité, gouvernance : vers une conception d'un cadre juridique pour la modernité économique autochtone", at 124.

97. É. LE ROY, "Odologie, topocentrisme et géométrie, trois représentations d'espaces générant des modes complémentaires de sécurisation foncière et de maîtrises territoriales", *loc. cit.*, note 10. Le Roy would note that feudal estates in England and the domain of Lairds in Scotland sit partway between odological and geometric conceptions of land, in a vision that can be characterized as topocentric.

60. Not only does an odological or sensorial worldview conceive of land as unlimited in its corporeal and incorporeal extensions, it imagines that experiences project themselves infinitely backwards and forwards. For a geometric worldview, the significant difference between fruits and products is that a taking of the second type diminishes the substance and value of the capital asset, while a taking of the former does not. Under an odological worldview, however, both diminish the capital asset: the second, immediately and obviously; the first, slowly and imperceptibly. Once one thinks of capital value as comprising the totality of the productive life of an asset, it is obvious that future fruits (for example, annual crops projected for an orchard, milk production projected for the life of a cow) will constitute part of that capital. Conversely, in a long enough run, everything (even oil and gas) will regenerate. Attending to aboriginal conceptions of land (captured in their insistence on the word “territory”) reminds us that behind our own intuitions about immoveable property are highly charged symbols. As patrimonial assets become increasingly dematerialized, these symbols will play the central role in our evaluation of even moveable property. Whether traditional notions of capital (products), fruits and revenues can continue to serve as meaningful guideposts for this symbolic reconstitution of property is, at the very least, an open question.

8. FRUITS OF THE IMAGINATION (REAL SUBROGATION)

61. The growth of law is often experienced in the extension of a conceptual framework beyond its original referents. Whether the extension happens through fiction, an appeal to equity, judicial interpretation of a precedent or legislative action, legal concepts are typically reactive to social change.⁹⁸ In fields of private law, the competing claims of “formalism”

98. See Sir Carleton Kemp ALLEN, *Law in the Making*, 7th ed., Oxford, Clarendon Press, 1964 for a classical statement of the techniques for legal adaptation. See further Alan WATSON, “Legal Change, Sources of Law and Legal Culture”, (1983) vol. 131 n° 5 *University of Pennsylvania Law Review* 1121, and Roderick A. MACDONALD, Hoi KONG, “Patchwork Law Reform”, (2006) 44 *Osgoode Hall Law Journal* 11.

and “functionalism” invariably have animated and organized discussions of law reform.⁹⁹

62. For two millennia, property law has been an important site on which these alternative perspectives have been played out. Reviewing the scope and application of notions like capital, products, fruits and revenues in contemporary law is a reminder of their salience. In some cases we focus on form, conceiving property as a thing to be used;¹⁰⁰ in other cases, we focus on function, imagining property as a source of value.¹⁰¹ Neither of these perspectives can be reduced to the other. If the concept of fruits most easily leads us to think about property as a thing, the concept of revenue most easily leads us to think about property as a source of value. Likewise, if the concept of products most easily lends itself to thinking about property as a thing, the concept of capital evokes the more abstract idea of property as value.

63. This Essay has argued that traditional categories no longer provide a workable model for allocating the functionalities and prerogatives of property. On the one hand, because the Civil Code erects an edifice of property rights on the terrain of corporeal immoveables, it projects a geometric image of property as bounded in space and timeless. In such a framework, dynamic variances of the type inherent in incorporeal moveables like complex financial instruments are conceived as marginal exceptions that can be accounted for, in the manner of Ptolemaic epicycles, with minor adjustments to bring theory into line with observation. On the other hand, because the Civil Code organizes what is produced by property in the image of agriculture and animal husbandry, it projects a materialist image of fruits as things periodically severable from an unchanging substance. A failure to account

99. For an application to secured transactions law, see Michael G. BRIDGE, Roderick A. MACDONALD, Ralph L. SIMMONDS, Catherine WALSH, “Formalism, Functionalism and Understanding the Law of Secured Transactions”, (1999) 44 *McGill L.J.* 567.

100. Book IV of the C.C.Q. (Property) primarily organizes reflection about the materiality of property — for example, a usufructuary cannot substantially reduce the substance of property by extracting more than a just proportion (art. 1120 C.C.Q.).

101. Book VI of the C.C.Q. (Prior Claims and Hypothecs) is primarily oriented around the economic value of property — for example, a grantor who has hypothecated property cannot destroy, deteriorate or materially reduce its value (art. 2734 C.C.Q.).

for the present value of fruits as comprising part of the capital of property leads, in the domain of civil fruits, to a corresponding failure to account for revenues (either as rent, as interest or as dividend) as the price of a partial disposition of capital, or as the price of the opportunity cost of making a loan or purchasing a share.

64. In imagining an alternative for organizing the prerogatives attaching to what is produced by property one may begin by asking how the current structure came to be developed. Today, it is common to assume that the notions of *usus*, *fructus* and *abusus* were derived through a conceptual analysis of ownership as *dominium*. Various dismemberments of ownership were then constructed by aggregating these attributes in different combinations: the usufruct being the paradigm example. But as the old story of the rights of use and habitation, and the modern story of emphyteusis reveal there is no easily deducible *ex ante* logic to these combinations. Rather, like the different estates in English land law, they are *ex post* pragmatic constructions of a vast number of the “bundle of rights” that are held to comprise ownership.¹⁰² In other words, the notion of fruits developed as a functional category that was meant to capture a number of the prerogatives exercisable by a person to whom an owner gave a real right of enjoyment for a limited time. Far from the concept of the usufruct being constructed from two pre-existing aggregations of prerogatives — the *jus utendi* and the *jus fruendi* — these two aggregations were constructed by grouping together the prerogatives that, in practice, owners sought to fractionate from their right of ownership.¹⁰³

65. If the idea of fruits as a functional aggregation no longer serves the function for which it was developed, an alternative must be found. In aid of this endeavour, two inquiries may be undertaken: first, what are the situations to which the new conceptual framework is meant to be applied? and second,

102. See the discussion in James E. PENNER, “The ‘Bundle of Rights’ Picture of Property”, (1996) 43 *U.C.L.A. Law Rev.* 711.

103. For the consequences of imagining property aggregations in this manner, see George GRETTON, “Owning Rights and Owning Things”, (1997) *Stellenbosch Law Review* 176; and David LAMETTI, “The Concept of Property: Relations Through Objects of Social Wealth”, (2003) 53 *University of Toronto Law Journal* 325.

what functions are at the centre of the proposed conceptual framework?

66. In responding to the first inquiry, it might be noted that the C.C.Q. explicitly deals with fruits in relation, *inter alia*, to incapacities (article 220 C.C.Q.), matrimonial regimes,¹⁰⁴ successions,¹⁰⁵ undivided co-ownership (article 1018 C.C.Q.), trusts (article 1347 C.C.Q.), the administration of the property of another,¹⁰⁶ the law of sale, lease, loan and enterprise,¹⁰⁷ the rights of different hypothecary creditors,¹⁰⁸ and the respective rights of emphyteutic lessees, usufructuaries and bare-owners.¹⁰⁹ In each of these cases, the Code seeks to allocate entitlements to property where more than one person has an ongoing relationship with that property.

67. To answer the second question — what functions drive the need to distinguish fruits from products (or revenue from capital)? — it is useful to compare how the Civil Code elaborates the respective rights of usufructuaries and owners on the one hand, and hypothecary debtors and creditors on the other.

68. In allocating prerogatives between owners and usufructuaries the Code most often deploys suppletive rather than imperative rules. That is, even though articles 908–910 C.C.Q. define the attributes of, for example, fruits in the paradigmatic case of elaborating property as a thing to use, parties may set the codal definition aside. So, for example, bare owners and usufructuaries may decide that the usufruct does not embrace a right to harvest fallen wood or dead trees (*contra* article 1139 C.C.Q.), or conversely that it does include the right to extract gravel or granite from a quarry (*contra* article 1141 C.C.Q.). Similarly, rules organizing the attribution of anticipated property may be freely modified in the

104. Articles 446, 449-450, 458 C.C.Q. Recent developments such as the family residence and family patrimony have, however, diminished the importance although it is still significant for the optional regimes such as partnership of acquests (art. 449(2) C.C.Q.) and community regimes (art. 492).

105. Articles 101, 743, 878 C.C.Q.

106. Articles 130-1303, 1345-1346, and 1348-1350 C.C.Q.

107. Sale (art. 1780 C.C.Q.); Lease (art. 1851 C.C.Q.); Deposits (art. 2287 C.C.Q.); Loan (art. 2330–2331 C.C.Q.); Enterprise (art. 909 C.C.Q.).

108. Articles 2698, 2737-2738 and 2743-2744 C.C.Q.

109. Articles 1126, 1129-1130, 1146, 1154, 1169, 1171 C.C.Q.

agreement constituting the usufruct.¹¹⁰ What is interesting in these codal rules is that, as often as not, the Code provides for a default rule governing the attribution of fruits that is identical to that provided for the attribution of proceeds.¹¹¹

69. The codal rules setting out the respective rights of hypothecary debtors and creditors are largely concerned with property as value: a hypothecary creditor looks to the property of its debtor not as a thing to use, but as security for an unpaid obligation.¹¹² Materially, the creditor's rights are preserved through the right to follow,¹¹³ and a general prohibition on waste (article 2734 C.C.Q.), while the economic value of the property through time is preserved through the concept of real subrogation.¹¹⁴ The question of fruits is more complex.

110. For example, if crops are sold uncut under article 901(2) C.C.Q., they are fruits by anticipation even though still a part of the immovable. The sale of foal to be born of a mare, or of the wool to be shorn from a sheep is likewise the sale of a fruit by destination. Profits earned by a corporation and declared as dividends but not yet distributed are fruits (revenues) by destination, as is a bond's coupon interest that has matured but has not yet been clipped. In all these cases, if the underlying asset is sold prior to severance, the fruits by destination pass to the acquirer as capital, unless the parties provide otherwise.

111. This is also often the case in respect of rules relating to the characterization of assets within different matrimonial regimes. Indeed, given the number of deeming rules (for example, articles 446-458 C.C.Q.) that modify the allocation of property rights in fruits, it is far from evident that the distinction between fruits and proceeds actually does much work in organizing the partnership of acquests regime.

112. On the various features of hypothecs considered in this paragraph, see generally Louis PAYETTE, *Les sûretés réelles dans le Code civil du Québec*, *op. cit.*, note 12.

113. The parties will typically provide that the security attaches to specified property, whether present or future (art. 2670 C.C.Q.), whether individually or as a universality of property (art. 2666 C.C.Q.). Moreover, the principle of indivisibility of the hypothec (art. 2662 C.C.Q.) means that, should a part of the hypothecated property be separated or sold (for example, should part of the capital be detach as a product), the hypothec continues to charge that property (art. 2751-2752 C.C.Q.), unless the detachment involves a change of nature — as from immovable to moveable (art. 2698 and 2795 C.C.Q.). Conversely, whenever property is added to the charged property by accession (art. 2671 C.C.Q.) or adjunction to immovables (art. 2672 C.C.Q.) or moveables (art. 2673 C.C.Q.), the hypothec extends to that property, unless the property changes nature from moveable to immovable and in doing so loses its identity (art. 901 and 2795 C.C.Q.). In this case the moveable hypothec may be transferred into the immovable to which it is incorporated (art. 2951 C.C.Q.).

114. For example, a creditor in possession holding shares that are repurchased is entitled to collect the payment price on the capital and treat it as revenue (art. 2738 C.C.Q.). Likewise, it extends to shares that are redeemed or converted whether partially or fully (art. 2677 C.C.Q.). The Code also imagines other cases of real subrogation such as sales in the ordinary course of business giving rise to replacement property

In Québec, a hypothec on property does not extend to its fruits, even when the hypothecated property is in the hands of the creditor (article 2737(2) C.C.Q.), unless the parties provide otherwise.¹¹⁵ If the fruits take the form of revenues, however, and the property is in the hands of the creditor, the hypothec extends to them (article 2737(2) C.C.Q.) and if the property is a claim bearing interest, the hypothec automatically extends to revenues in the form of interest as well as capital falling due during the period that the hypothec is in effect (article 2743 C.C.Q.). The distinction between the treatment of fruits and revenues and the special case of interest due on a capital sum are evidence that the object of the hypothec is primarily conceived as the economic value inherent in the charged property.¹¹⁶

70. This functional conception of security as a right to the value represented by an identified asset suggests that, at least in so far as modern secured transactions law is concerned, the distinctions between fruits and products on the one hand, and between capital and revenue on the other, are

or money (art. 2674 C.C.Q.), insurance payments for property that is destroyed (art. 2492 C.C.Q.), property acquired as replacement for destroyed property (art. 2675 C.C.Q.), property subject to a tender and deposit (art. 2678 C.C.Q.), and property received in payment of an undivided interest that is separated, the debtor retaining no rights in the initial property (art. 2679 C.C.Q.).

115. In the case of a hypothec without dispossession, this may occur either because the hypothec attaches to present and future property and the fruits are of the same type as the initially charged collateral (for example, calves of cows), or because the original instrument expressly identifies other fruits as initially charged collateral. In the case of a hypothec with dispossession, this may be accomplished by providing that the pledge creditor may keep the fruits (art. 2737(2) C.C.Q.), which amounts to the same thing as providing for an initial charging of the fruits. In France, the hypothec extends to products, but not to fruits. See Michel CABRILLAC, Christian MOULY, *Droit des sûretés*, 5th ed., Paris, Litec, 2006, n° 844.

116. The manner in which these issues are dealt with under various Canadian *Personal Property Security Acts* is instructive. The basic concept of fruits is absent from these regulatory regimes. Rather, the idea is that a security on an asset extends to its "proceeds" — defined as "(a) identifiable or traceable personal property that is derived directly or indirectly from any dealing with collateral or proceeds of collateral and in which the debtor acquires an interest, (b) an insurance or other payment that represents indemnity or compensation for loss of or damage to collateral or proceeds of collateral, or a right to such a payment, and (c) a payment made in total or partial discharge or redemption of chattel paper, a security, an instrument or an intangible;" *Personal Property Securities Act*, S.N.L. 1998, c. P-7.1, s. 2 (ff). See for discussion Ronald C.C. CUMING, Catherine WALSH, Roderick WOOD, *Personal Property Security Law*, Toronto, Irwin Law, 2005, 460-465.

no longer helpful in allocating prerogatives between competing claimants to assets.¹¹⁷ Moreover, in the cases of usufruct and matrimonial property¹¹⁸ already discussed, the vocabulary of fruits is only partially appropriate to the uses for which it is meant to be put. In contemporary understandings of property as value, property is not just what is — a thing; property is whatever may be generated, re-generated and received on account of it, regardless of whether its substance remains constant, is increased through accession, decreased through extraction of products or transformed by specification. In this account, property is its “proceeds”.

EPILOGUE

71. How, then, to conclude? First, property is no longer understood as being exclusively or even primarily about the use to which humans could put it. Traditionally, a piece of land was associated with particular human purposes — farming, silviculture, etc., and it was in those purposes that value resided. Today however, the central purpose of property *itself* is understood to be value: the purpose is to maximize value, and this purpose can be achieved through market transactions that can, for a particular owner, turn land into money, then into purchasing power, then into a good that the particular owner considers will rise in value in the future. Both property as *use* and property as *value* can be considered as relative concepts. Use is relative to human utility. Value is relative to the dictates of the market. Seen in this way, “use” and “value” are not polar concepts, but in the end are different ways of conceiving of the same phenomenon.

72. Second, once property is seen over an extended period of time the traditional distinction between fruits and products

117. The object and characteristics of the hypothec in the *Civil Code of Québec* differ significantly from the historical model of the hypothec on corporeal immoveable property, and reinforce the transformation of the hypothec into a charge on the value represented by an asset (or a fund). See Louis PAYETTE, *Les sûretés réelles dans le Code civil du Québec*, *op. cit.*, note 112, n° 318.

118. It also bears note that articles 455-457 C.C.Q. provide that fruits of private property (even though acquests) remain private property, subject to compensation to the other spouse. Here is a further illustration of how, in many modern uses, the law focuses the fruits as value, rather than fruits as things.

reveals itself as one of degree, and not one of kind : periodicity and regeneration are relative to human perception and purposes. Trees, as natural objects, *do* regenerate in seventy years — making them fruits — but for humans, three-score and ten is the biblical lifetime — making felled trees *seem* like products from the perspective of a particular human being. This encapsulates the transformation from object to experience — from natural things in the world to the human experience of those things. Regeneration is a matter of naturalistic, organic units of time — nature’s “biological clock”, so to speak. Periodicity, on the other hand, is a matter of human purposes — standardized, temporal, abstract units that we have created for our own utility. Indeed, the central distinction between sustainable or unsustainable extraction provides little guidance for determining rights in shares, debt instruments and other *valeurs mobilières*.

73. Third, the distinction between fruits of the vine (natural fruits) and fruits of labour (industrial fruits) no longer captures a meaningful difference. Because almost nothing today is naturally generated, the key question is not whether human agency is present, but rather what human agent is responsible for the fructification. Often, several people are jointly responsible for the fructification, and the resulting value that is created might be greater than the mere aggregation of individualized effort. The recognition of fructification must take account of communal, coordinated efforts. This can be achieved in at least three changes : (1) from separating fruits of the vine and fruits of labour to emphasizing the relationship between them; (2) from separating the work of atomistic persons to emphasizing the value-adding relationships between people through time; and (3) from separating fruits and capital to emphasizing the reliance each category has on the other.

74. Fourth, there is no economic difference between fruits as fruits, and fruits constituting new capital : between apples, milk, wool, manure, blood, ova on the one hand, and new apple trees, calves, colts, lambkins, etc. on the other. It is no longer possible to imagine that some physical feature of generated property in relation to some other generating property will forever determine its character. For example, the same

apple might be a fruit (in relation to the tree) and capital (in the hands of a grocer). The same apple can be both at the same time, depending what we want to know. Nor is it possible to think the physical attributes of a thing — the ripened ovary of a plant, the milk of a cow, and the eggs of a hen — will do so either. If it were possible to develop a process for making apples in a test tube, the resulting apples would not be fruits, but outcomes of specification.

75. Fifth, a dynamic conception of property would allow for an understanding of the element of *change* in reference to products and fruits, capital and revenue. The capital value of flora and fauna that generate fruits reflects the expected productive life of the plant or animal. Prior to the extraction of fruits, this potentiality is capital, and each withdrawal of a fruit over time diminishes the capital. There are no fruits that do not, as a matter of economics, alter the substance of the capital asset. Moreover, revenues today are less and less a reflection of the idea of civil fruits. By determination of law many payments that explicitly do alter the substance of a capital asset are revenues. Similarly, by assimilating interest earned on capital and the rent payable upon the lease of property to fruits, the Code fails to account for the opportunity cost of letting money for interest, or objects for rent. Rather than revenues of this sort continuing to be analogized to the former concept of civil fruits, a better analogy would be to the notion of proceeds of disposition.

Roderick A. Macdonald
Faculty of Law, McGill University
3674, Peel Street, Room 301
Montréal (Québec) H3A 1W9
Tel. : 514 398-8914
Fax : 514 398-3233
E-mail : roderick.macdonald@mcgill.ca

Author's note : This is a revised version of a paper delivered at the Colloquium, "Terminologie et modèles propriétaires au XXI^e siècle/ Terminology and Property Models in the 21st Century" on September 22, 2006. I should like to thank my research assistants, Alexander Herman (who also contributed to the colloquium paper),

Jacques-Olivier Desroches, Kathryn Tucker and Joshua Wilner for their efforts in digging up sources, in translating my half-formed ideas into a semblance of coherence. My colleagues Yaëll Emerich, Robert Leckey and Lionel Smith also read the penultimate version of the manuscript and raised a number of novel considerations that have helped me to refocus the argument.