2022

Possessing Intangibles

João Marinotti

Printed in U.S.A.
Vol. 116, No. 5

POSSESSING INTANGIBLES

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ABSTRACT—The concept of possession is currently considered inapplicable to intangible assets, whether data, cryptocurrency, or NFTs. Under this view, intangible assets categorically fall outside the purview of property law's foundational doctrines. Such sweeping conclusions stem from a misunderstanding of the role of possession in property law. This Article refutes the idea that possession constitutes—or even requires—physical control by distinguishing possession from another foundational concept, that of thinghood. It highlights possession's unique purpose within the property process: conveying the status of in rem claims. In property law, the concept of possession conveys to third parties the allocation of property rights and related duties. As such, possession builds upon the concept of thinghood; it is a subsequent analytical step through which the law can normatively and efficiently expect individuals to comply with their duty to not interfere with the property of others. Given its centrality in property law, then, possession should not be so quickly discarded in the context of intangibles.

The Article dissects the relationship between property, possession, and thinghood, deriving a new tech-neutral theoretical model of possession grounded in information theory. By unpacking the process through which the social institution of property emerges, this Article provides the rationale for a new theory of possession. This theory aims to be more descriptively accurate, analytically coherent, and parsimonious in the face of an ever more diverse set of assets that are subject to resource governance regimes. It also highlights the importance of distributed, accessible information. Clearly conveying the allocation of rights and duties is critical for the success of any resource governance regime, digital or otherwise.

Ultimately, property law relies on possession's communicative function to ensure that the enforcement of rights and duties is fair and expected. The theory of possession proposed in this Article provides a robust way for property law to retain these same benefits in the age of digital and crypto-assets.

AUTHOR—Associate Professor of Law at Indiana University Maurer School of Law; Affiliated Fellow at Yale Law School Information Society Project; Fellow at Indiana University Center for Intellectual Property Research; and

Visiting Fellow at the Center for Quantum Networks. Many thanks to Professors Henry E. Smith, Robert Merges, Jeffrey Stake, Elise Bant, Sjef van Erp, Asaf Lubin, and Nicholas Almendares for their insightful comments. Also, many thanks to the students in my Spring 2020 Seminar on Rethinking Thinghood for their engaging thoughts on property theory and to Kazumasa Watanabe for his great work as a research assistant.

INTRODUCTION

Possession is frequently seen as a "linchpin of property law."[1] It is on the first day of law school that many students are confronted with the concept of possession in the case of *Pierson v. Post*.[2] Through this now-infamous fox-hunting case, students are asked to discuss the doctrine of first possession and to determine whether the mere pursuit of a wild animal creates a protectable property interest. It does not. Rather, "property in such

[1] *See, e.g.*, Henry E. Smith, *Systems Theory: Emergent Private Law*, *in* THE OXFORD HANDBOOK OF THE NEW PRIVATE LAW 143, 154 (Andrew S. Gold, John C.P. Goldberg, Daniel B. Kelly, Emily Sherwin & Henry E. Smith eds., 2021) ("Something called 'possession' is invoked in many areas of [property] law . . . ."); MICHAEL J.R. CRAWFORD, AN EXPRESSIVE THEORY OF POSSESSION 1 (2020) ("Possession is universally regarded as one of the most important concepts in the law of property."). This is not a recent phenomenon. *See, e.g.*, Burke Shartel, *Meanings of Possession*, 16 MINN. L. REV. 611, 627 (1932) (discussing "possession" in both property and larceny problems); Joseph W. Bingham, *The Nature and Importance of Legal Possession*, 13 MICH. L. REV. 535, 535 (1915) ("[T]he law of legal possession was and is the fundamental part of our law of property.").

[2] 3 Cai. 175, 177 (N.Y. Sup. Ct. 1805); *see also* Bethany R. Berger, *It's Not About the Fox: The Untold History of* Pierson v. Post, 55 DUKE L.J. 1089, 1096 (2006) ("*Pierson v. Post* is still one of the first cases students will encounter."); THOMAS W. MERRILL & HENRY E. SMITH, PROPERTY: PRINCIPLES AND POLICIES 62 (3d ed. 2017) ("*Pierson v. Post* is probably the most famous case in property law . . . .").

animals is acquired" only through *possession*.[3] Once this rule is introduced, the classroom discussion shifts, and the definition of possession becomes key.

To some, this exercise may seem unnervingly simple, overwrought, or even irrelevant.[4] At a time when property law must adapt to intangible and digital assets, it might be argued that the possession of wild animals is the very last thing students should be taught. Especially if "[p]ossession is limited to *tangible* objects, that is, things that have *physical* dimensions," as many commentators currently assume,[5] should we not bypass this concept entirely to focus on intellectual property, data ownership, cryptocurrencies, and non-fungible tokens (NFTs)?

While property law must indeed address the growing number of intangible assets, this Article demonstrates that understanding possession is far from irrelevant. Possession is *not* limited to tangible objects. Rather, possession's expressive role in property law[6] serves to determine when and how traditional property doctrines may be applied to this ever-evolving landscape of intangibles. Without first understanding the foundational concepts of property law—including possession—we are left with ad hoc, domain-specific regulatory interventions that will only further fragment the

[3] *Pierson*, 3 Cai. at 177 ("[P]roperty . . . is acquired by occupancy only."); *see also* Madero v. Luffey, 439 F. Supp. 3d 493, 506 (W.D. Pa. 2020) (adhering to *Pierson* for the proposition that "[animals] are not subject of property until they are reduced to possession, and if alive, property in them exists only so long as possession continues" (quoting Commonwealth v. Agway, Inc., 232 A.2d 69, 70 (Pa. Super. Ct. 1967))).

[4] 3 JEREMY BENTHAM, THE WORKS OF JEREMY BENTHAM 188 (John Bowring ed., Edinburgh, William Tait 1843) ("But what is it to possess? This appears a very simple question:—[but] there is none more difficult of resolution . . . .").

[5] Thomas W. Merrill, *Ownership and Possession*, *in* LAW AND ECONOMICS OF POSSESSION 9, 25 (Yun-Chien Chang ed., 2015) (emphasis added). Theorists have also limited the concept of legal thinghood to tangible assets, though such designation has already raised concerns in light of blockchain-based crypto-assets, among other rival intangibles. *See generally* João Marinotti, *Tangibility as Technology*, 37 GA. ST. U. L. REV. 671, 681–82 , 682 n.59, 695–96, 703, 734 (2021) (noting that although tangibility may facilitate our conceptualization of "things" in property law, it is not a necessary criterion for legal thinghood, and by understanding tangibility's original purpose in property law, it is possible to see that certain crypto-assets such as Bitcoin may fulfill all requisites of legal thinghood). The limitation of possession to physical assets, however, is far from new. *See, e.g.*, FRIEDRICH KARL VON SAVIGNY, VON SAVIGNY'S TREATISE ON POSSESSION; OR THE JUS POSSESSIONIS OF THE CIVIL LAW 2 (Erskine Perry trans., Hyperion Press, Inc., 6th ed. 1979) (1848) ("By the possession of a thing, we always conceive the condition, in which not only one's own dealing with the thing is *physically possible*, but every other person's dealing with it is capable of being excluded." (emphasis added)).

[6] *See* CRAWFORD, *supra* note 1, at 7 (describing possession's *expressive* role as it relates to tangible things).

legal treatment of digital assets, increasing confusion and decreasing efficiency.[7]

Given the centrality of possession in property law,[8] it may be surprising that its definition (let alone its applicability to intangible assets) is still hotly debated.[9] It is true, after all, that legal scholarship has been dealing with the "paradox" of possession for centuries.[10] Yet, there is "no accepted common understanding of the meaning of legal possession or the nature of the thing or things denoted by the term."[11] No consensus exists, whether doctrinal or philosophical, on the meaning, application, or purpose of possession in property law.[12] Even judges have been forced to come to terms with "a degree of ambiguity built into the term possession."[13]

For most of the twentieth century, however, the goal of defining possession was itself eschewed as fallacious and against the principles of Legal Realism, such that conceptual analyses of possession became few and far between in the American legal academy.[14] Over the last decade, however, possession has been analyzed in light of parallel advancements in property theory.[15] These works have sought to understand and explain the structure

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[7] Marinotti, *supra* note 5, at 674 (noting that ad hoc approaches exacerbate the "fragmentation and confusion in the legal treatment of digital assets").

[8] CRAWFORD, *supra* note 1, at 1.

[9] *Id.* ("[P]ossession is notoriously poorly understood and a perennial source of confusion in the law.").

[10] Bingham, *supra* note 1, at 535–36. Globally, too, possession has been a topic of debate in property law for millennia. *See, e.g.*, Christian Baldus, *Possession in Roman Law*, *in* THE OXFORD HANDBOOK OF ROMAN LAW AND SOCIETY 537, 537–38 (Paul J. Du Plessis et al. eds., 2016) (discussing Roman law's lack of "a unified doctrine of possession"); *see also* LUKE ROSTILL, POSSESSION, RELATIVE TITLE, AND OWNERSHIP IN ENGLISH LAW 1 (2021) ("For centuries, jurists have reflected on the nature and significance of ownership and possession.").

[11] Bingham, *supra* note 1, at 536 (emphasis omitted); Henry E. Smith, *Elements of Possession*, *in* LAW AND ECONOMICS OF POSSESSION, *supra* note 5, at 65, 65 ("Possession is both mundane and mysterious.").

[12] CRAWFORD, *supra* note 1, at 1–2.

[13] Popov v. Hayashi, No. 400545, 2002 WL 31833731, at *4 (Cal. Super. Ct. Dec. 18, 2002).

[14] *See, e.g.*, Shartel, *supra* note 1, at 612, 619 (arguing that property law should bypass the search for a unified meaning of possession and instead turn solely to the law's underlying "considerations of social policy"); Robert G. Bone, *A New Look at Trade Secret Law: Doctrine in Search of Justification*, 86 CALIF. L. REV. 241, 259–60 (1998) ("[I]n the early twentieth century[,] [a] new positivism and commitment to instrumental reasoning replaced the natural law formalism of the late nineteenth century . . . . On this view, property was not a logical entailment of fundamental truths about possession and ownership. Instead, property rights were created by positive law and were designed to serve whatever goals the community wished to pursue."); Smith, *supra* note 11, at 95 ("[F]rom the earliest days of Legal Realism, commentators have voiced doubts that there is any unifying thread to possession.").

[15] *See, e.g.*, Smith, *supra* note 11, at 95 (noting the architectural theory of property as a means for understanding possession); Merrill, *supra* note 5, at 12 (interpreting possession as it operates in various nonlegal social norms); Jill M. Fraley, *Finding Possession: Labor, Waste, and the Evolution of Property*,

and function of possession by incorporating new insights from the fields of cognitive science, economics, and complex systems theory.[16] This body of work has highlighted property law's reliance on information exchange,[17] psychological salience,[18] and social and economic norms.[19] It has also highlighted that possession is intimately related to another foundational pillar of property law: legal thinghood.[20] Although the centrality of

39 CAP. U. L. REV. 51, 53–54 (2011) (examining possession in light of "socio-historical circumstances and legal evolution").

[16] *See, e.g.*, Henry E. Smith, *Property as the Law of Things*, 125 HARV. L. REV. 1691, 1700–01 (2012) (discussing systems theory and cognitive science in conjunction with property). This same analytical momentum—integrating interdisciplinary insights into the analysis of private law concepts and doctrines—has been applied to torts, contracts, restitution, and even corporate law. *See generally* Andrew S. Gold, John C.P. Goldberg, Daniel B. Kelly, Emily Sherwin & Henry E. Smith, *Introduction* to THE OXFORD HANDBOOK OF THE NEW PRIVATE LAW, *supra* note 1, at xv, xviii–xix, xxii, xxvi (collecting scholarly works).

[17] *See* CRAWFORD, *supra* note 1, at 200 ("[P]ossession refers to any act, earmark or symbol that, as a matter of an extra-legal convention, is *recognised* by members of a particular population as a legitimate way of staking a claim to an object of property." (emphasis added)).

[18] *See* Smith, *supra* note 11, at 81 (noting that "possessory norms . . . rely on salience that often makes it possible for an outsider to interpret property signals").

[19] *See* Merrill, *supra* note 5, at 33 (stating property "law quite often and properly reinforces important social norms").

[20] Smith, *supra* note 11, at 71–74 ("Possession and thinghood are closely related . . . . If a group's ongoing norms of mutual respect [over things] are more robust, then requirements of control and continuing control in defining possession can be relaxed."). Thinghood is the state of being perceived and treated as a single unit. Legal thinghood is the state of being perceived and treated as a single unit for the purposes of legal analysis, doctrine, and judgment. For thinghood (legal or otherwise) to have normative implications, its perception must be shared across a community, building on boundaries clearly delineated through physical facts or shared social norms and intuitions. *See* Marinotti *supra* note 5, at 735 ("Legal thinghood requires that (1) an owner's liberty-right to use and (2) a non-owner's duty not to deliberately or carelessly interfere have boundaries that are easily discernable from shared social customs or intuitions."); 1 RESTATEMENT (FOURTH) OF PROPERTY div. I, § 2 (AM. L. INST., Council Draft No. 1, 2019) ("A legal thing is a possible subject matter of legal relations that receives treatment as a separate whole and is no more than contingently associated with any particular actor."). *See generally* Henry E. Smith, Thomas W. Merrill, John C.P. Goldberg & Christopher M. Newman, *Reporters' Guide to: Restatement of the Law Fourth, Property*, ALI ADVISER (May 20, 2020), https://thealiadviser.org/property/reporters-guide-to-restatement-of-the-law-fourth-property/ [https://perma.cc/NJ2T-ZV5C]; Pauline Toboulidis, *October 2020 Council Meeting Updates*, ALI ADVISER (Oct. 28, 2020), https://www.thealiadviser.org/inside-the-ali-posts/october-2020-council-meeting-updates/ [https://perma.cc/4V3L-ZSYR] (noting that "at its meetings on October 13 and October 22-23, 2020 . . . [t]he Council approved Council Draft No. 3, which contained Chapters 1-5 of Division One," which is what is cited in this Article).

Since the writing of this Article, newer drafts of the *Fourth Restatement of Property* have been proposed. In these updated drafts, much of the language discussed in this Article has already been altered. Nonetheless, I retain and discuss the original language because the concepts contained therein are representative of ideas permeating the larger, global discussion of intangible property rights. Thus, references to the Council Draft of the *Restatement* in this Article are neither meant to represent the stance of the American Law Institute nor are they meant to serve as advocacy for changing the American Law Institute's ongoing project. Rather the discussion is meant to serve merely as an example of ideas circulating amongst expert commentators in this field.

possession and thinghood has been made clear, the exact relationship between these two concepts has not yet been defined.

This Article illuminates the nature of the relationship between possession and thinghood by proposing a foundational reanalysis of possession. It argues that possession is neither a fact nor a legal determination; rather, it is the *mechanism* through which the status of in rem property claims is conveyed.[21] It is the *manifestation* of current or imminent future appropriation. Once in rem claims are conveyed, the law can coherently,[22] efficiently,[23] and normatively[24] hold third parties liable for violating them, thereby providing the foundation for the rest of private law.[25]

Thus, this Article determines and distills the very purpose of possession in property law: disseminating information. Possession has the same role regardless of whether its underlying assets are physical or digital.[26] This Article also distinguishes possession from the concept of thinghood by demonstrating that property is a process of sequential analytical steps. First,

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[21] Existing literature exploring the concept of possession frequently builds on the following four definitions: (1) "possession is actual control," (2) "possession [is] a fact," (3) possession is a subsidiary property right, and (4) possession is "a basis for acquiring or relinquishing property rights." Yun-Chien Chang, *The Economy of Concept and Possession*, *in* LAW AND ECONOMICS OF POSSESSION, *supra* note 5, at 103, 106. Variations and combinations of these definitions have also been proposed: possession "as a right to justify the protection the law awards to the possessor" which conflates "possession as a fact with the 'subsidiary possessory right.'" *Id.* Michael Crawford's recent "expressive theory of possession" comes closest to the approach adopted in this piece, though, focusing on Anglo-Australian law and limiting his analysis to tangible objects. CRAWFORD, *supra* note 1, at 170–71 ("[P]ossession [in property law] is best understood, not as a factual relationship of control over a tangible thing, but as a series of acts that convey one's intention to claim an entitlement to a particular thing.").

[22] *See* James E. Penner, *The "Bundle of Rights" Picture of Property*, 43 UCLA L. REV. 711, 759 (1996) (noting that clarity and coherence are key for "[a]ny normative system whose purpose is actually to guide people's behavior, including how they should think about what they are doing").

[23] *See* Henry E. Smith, *Standardization in Property Law*, *in* RESEARCH HANDBOOK ON THE ECONOMICS OF PROPERTY LAW 148, 169 (Kenneth Ayotte & Henry E. Smith eds., 2011) ("Property law furnishes a modular structure with constrained interfaces, and the *numerus clausus* provides the basic building blocks of the system. Because the building blocks can combine recursively and in a generative way, the system does not present as high frustration costs as a system that required a tailor-made property form for each purpose.").

[24] *See* Thomas W. Merrill & Henry E. Smith, *The Morality of Property*, 48 WM. & MARY L. REV. 1849, 1889 (2006) (noting that "unlicensed interferences with property are perceived to be morally wrong, [even] without regard to whether such interferences threaten other values such as the sanctity of persons").

[25] Smith, *supra* note 16, at 1691 ("Property is a platform for the rest of private law.").

[26] ROBERT P. MERGES, JUSTIFYING INTELLECTUAL PROPERTY 5 (2011) [hereinafter MERGES, JUSTIFYING INTELLECTUAL PROPERTY] (noting that the property strategy "has little to do with the nature of the assets in question" and that "[t]he logic of decentralized control and coordination—that is, individual ownership—makes just as much sense to me for intangible assets as it does for physical assets and the other objects of traditional property law"); *see also* Robert P. Merges, *The Concept of Property in the Digital Era*, 45 HOUS. L. REV. 1239, 1275 (2008) ("[P]roperty—as durable and flexible an economic institution as any we have known—is likely to have a long and promising future, into and through the digital era, and on to whatever era lies beyond.").

thinghood delineates that which is subject to property law: the *things*. Second, possession provides the mechanism by which the status of property rights can be contextually discerned for each of the *things* from step one. Notably, although both thinghood and possession rely on biological perceptual salience[27] and shared social customs,[28] they do so sequentially and separately. Finally, owners and nonowners can rely on the information gathered from these steps, thereby establishing the foundation for private ordering.[29] It is in this way that property can serve as a means to allocate ownership,[30] facilitate social interaction,[31] and ultimately function as the foundation for the rest of private law.[32]

This reframing of possession is not just a theoretical innovation. It is also descriptively accurate and normatively helpful. Descriptively, this Article explains why possession is a widespread principle across jurisdictions and subject matters.[33] Possession aligns with psychological

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[27] Smith, *supra* note 11, at 70 ("To be salient, the piece of information should be easily accessible and not subject to multiple interpretations.").

[28] *Id.* at 71 ("Possession and thinghood are closely related. In the emerging convention, we have to decide exactly what chunk of stuff constitutes the thing over which the person has possession. From the point of view of salience, this has to rely on widely shared background knowledge and a shared tendency to see certain associations as prominent.").

[29] Private ordering refers to "the discretionary decisions that individuals make in structuring their lives." Thomas W. Merrill, *Private and Public Law, in* THE OXFORD HANDBOOK OF THE NEW PRIVATE LAW, *supra* note 1, at 575, 575. To make these discretionary decisions, such as purchasing land, entering into contracts, and determining one's interactions with friends, neighbors, and strangers, individuals rely on a baseline of shared expectations about the behavior of others and availability of redress when such expectations are violated.

[30] *See, e.g.*, James Y. Stern, *The Essential Structure of Property Law*, 115 MICH. L. REV. 1167, 1168 (2017) ("Two people cannot both be complete *owners* of the same thing . . . . It may take a moment to absorb this idea—precisely because it is so obvious—but it is fundamental to the structure of property law." (emphasis added)). *But see* John A. Humbach, *Property as Prophesy: Legal Realism and the Indeterminacy of Ownership*, 49 CASE W. RES. J. INT'L L. 211, 224 (2017) (acknowledging that "claims to ownership . . . based on the simple, hard-to-contest facts of actual possession . . . lie at the core of the social practice of property," but claiming that ownership, like property law itself, is ultimately indeterminate).

[31] *See* Merrill & Smith, *supra* note 24, at 1850 ("Property is a device for coordinating both personal and impersonal interactions over things.").

[32] Joseph William Singer, *Property as the Law of Democracy*, 63 DUKE L.J. 1287, 1291–92 (2014) (noting that property is "a framework for 'interactions of persons in society' as well as the foundation and infrastructure of private law" (quoting Smith, *supra* note 16, at 1691)).

[33] Dean Lueck, *The Rule of First Possession and the Design of the Law*, 38 J.L. & ECON. 393, 393–94 (1995) ("[First possession rules] have been applied widely in both common and statute law, in such varied settings as abandoned property, adverse possession, bona fide purchasing, the electromagnetic spectrum, emissions rights, fisheries and wildlife, groundwater, hardrock minerals, intellectual property, oil and gas, land, nonbankruptcy debt collection, satellite orbits, spoils of war, treasure trove, and water rights. First possession rules also have been a fundamental component of civil law, traditional African and Islamic legal systems, as well as informal and customary rule making." (citations omitted)); *see also*

intuitions, so it is expected that various cultures and groups rely on possession as a legal primitive.[34] Thus, it is no wonder that courts have relied on the concept as "the ultimate default regime for assigning things to persons."[35] Absent more specific doctrines or positive statutes, this default regime—possession's inherently conveyed allocation of rights—controls.[36] In fact, possession's role as default is a required foundation for the "various other rules of property" that rely on, modify, or even override the allocation of rights initially conveyed by basic possession.[37]

Normatively, this Article provides a framework through which the concept of possession can be coherently applied to intangible assets.[38] Given the NFT boom of 2021 as merely one example of the growing market of intangible assets,[39] a clearer understanding of property law's role in the

Fraley, *supra* note 15, at 52 & n.6 (citing examples of first possession in Indigenous cultures from Africa to North America).

[34] Ori Friedman & Karen R. Neary, *First Possession Beyond the Law: Adults' and Young Children's Intuitions About Ownership*, 83 TUL. L. REV. 679, 686–88 (2009) (describing that the "research revealed striking consistency between judgments of who owns what generated by young children, adults, and the law" and reasoning that "whether by innate predisposition, enculturation, or other means, people may typically view taking possession of nonowned things as establishing ownership over them"); *see also* Daphna Lewinsohn-Zamir, *What Behavioral Studies Can Teach Jurists About Possession and Vice Versa*, *in* LAW AND ECONOMICS OF POSSESSION, *supra* note 5, at 128, 142 ("[P]reliminary evidence suggests that mere physical possession can have a psychological effect similar to that of ownership, and that the effect of possession may sometimes be stronger than the effect of ownership.").

[35] *See* Smith, *supra* note 11, at 88.

[36] *Id.* ("Because of this layering architecture of modular property, possession winds up being a heterogeneous category, one that governs in an 'elsewhere' pattern—when nothing more specific applies.").

[37] *Id.* (explaining that positive law and domain-specific doctrines may modify or override default possessory norms "in situations in which actors, private and public, have found it worthwhile to go beyond possession"). As discussed *infra* notes 50–53 and accompanying text, doctrines such as first possession, adverse possession, and even the validity of *inter vivos* gifts turn on the concept of possession.

[38] Other commentators share the need for such a framework. *See, e.g.*, Joshua A.T. Fairfield, *Bitproperty*, 88 S. CAL. L. REV. 805, 811, 874 (2015) ("[P]roperty law has been traditionally understood as being concerned with tangible objects . . . . What is needed . . . is a theory [that] . . . confronts the pernicious view that traditional property has no place online.").

[39] NFTs are non-fungible tokens, a "crypto off-shoot that can tie intangible assets to specific, unalterable tokens." Daniel Cooper, *NFTs Are Both Priceless and Worthless*, ENGADGET (Mar. 11, 2021), https://www.engadget.com/nft-explainer-digital-art-collectibles-blockchain-environment-business-investment-cryptocurrency-153023551.html [https://perma.cc/42XG-RDPX]; *see also* Elise Hansen, *NFT Craze Generates Slew of Legal Questions*, LAW360 (Apr. 2, 2021), https://www.law360.com/articles/1371872/nft-craze-generates-slew-of-legal-questions [https://perma.cc/6DXS-4JZE] (discussing legal questions surrounding NFTs); Sam Dean, *$69 Million for Digital Art? The NFT Craze Explained*, L.A. TIMES (Mar. 11, 2021, 10:34 A.M.), https://www.latimes.com/business/technology/story/2021-03-11/nft-explainer-crypto-trading-collectible [https://perma.cc/247R-BY37] (giving an overview of NFTs and the current NFT market).

digital marketplace is sorely needed.[40] Currently, many commentators unflinchingly conclude that possession is not applicable to intangibles.[41] Their fear is that "intangible object[s] capable of physical possession" would form an "unstable category" of property.[42] In the twenty-first century, however, at a time when intangibles not only comprise a significant portion of our financial assets[43] but have also "replace[d] . . . sentimental assets like letters, scrapbooks, home videos, and shoeboxes full of photos,"[44] it is unnerving to write off these assets as simply unpossessable. Doing so would not be a mere lexical distinction; it would have significant normative implications.

Without possession, the doctrines of conversion and trespass, for example, would be inapplicable to intangibles.[45] Without possession, the law of "consumer protection, warranties, [and] disclaimers" would also suffer, ultimately leading to the loss of legal standing to pursue remedies in U.S. courts.[46] Unfortunately, this determination seems prevalent among property

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[40] A coherent application of property principles to NFTs, for example,

> connects courts to robust and well-thought-out legal precedent. A sale of an NFT is a sale of personal property—a good. Courts can therefore draw on the well-established and carefully thought-over law of Article 2 Sales in determining rights surrounding NFTs. That law either solves or suggests powerful and flexible solutions for issues currently haunting NFTs . . . .

Joshua Fairfield, *Tokenized: The Law of Non-Fungible Tokens and Unique Digital Property*, 97 IND. L.J. (forthcoming 2022) (manuscript at 98), https://papers.ssrn.com/a=3821102 [https://perma.cc/YLE8-REZZ].

[41] Merrill, *supra* note 5, at 25 ("Possession is limited to tangible objects, that is, things that have physical dimensions."); *see also* sources cited *infra* note 47. Theorists have also limited the concept of legal thinghood to tangible assets. *See infra* note 187. Such designation has already raised concerns in light of blockchain-based crypto-assets, among other rival intangibles. *See generally* Marinotti, *supra* note 5, at 699–703 ("[T]angibility is only one manner of delineating boundaries [for thinghood]; it is not the *only* manner . . . . Tangibility, therefore, is not a conceptual requisite in existing property law and, thus, should not be a doctrinal requisite either.").

[42] *See* J.G. Allen, *Property in Digital Coins*, 8 EUR. PROP. L.J. 64, 87 (2019).

[43] Glen Fernandes & Walter Verbeke, *Crypto-Assets: Crossing the Chasm?*, 11 J. SEC. OPERATIONS & CUSTODY 292, 293–94 (2019).

[44] Natalie M. Banta, *Inherit the Cloud: The Role of Private Contracts in Distributing or Deleting Digital Assets at Death*, 83 FORDHAM L. REV. 799, 816 (2014).

[45] *See, e.g.*, Robin Singh Educ. Servs., Inc., v. Test Masters Educ. Servs., Inc., 401 S.W.3d 95, 97–98 (Tex. App. 2011) ("[U]nder Texas law, a tort action for conversion is limited to tangible property. . . . 'Texas law has never recognized a cause of action for conversion of intangible property except in cases where an underlying intangible right has been merged into a document and that document has been converted.'" (quoting Express One Int'l, Inc. v. Steinbeck, 53 S.W.3d 895, 901 (Tex. App. 2001))); *see also* Lewinsohn-Zamir, *supra* note 34, at 129 ("[P]roperty owners often receive greater protection against interference with their physical possession than against interference lacking any physical attribute. A good example is eminent domain compensation. Some American states require compensation surpassing market value for expropriation of occupied residences.").

[46] Fairfield, *supra* note 40, at 98 (noting that NFT designation as property will determine "whether buyers of NFTs will have the legal right to go to court at all, or whether they will be forced into arbitration under the law of the Cayman Islands, for example").

theorists,[47] even making its way into the early Council Draft stage of the American Law Institute's *Fourth Restatement of Property*.[48]

Judges too—sometimes citing the very textbooks they may have read in law school—reproduce the idea that possession requires "physical control."[49] By defining possession through its communicative function, this Article demonstrates that possession is not and should not be tied to tangible objects. Ultimately, conceptualizing possession as a solely physical phenomenon is not merely disconcerting, it is actually erroneous and could prevent the establishment of efficient resource governance regimes in the growing digital economy of data, cryptocurrencies, and NFTs.

The Article proceeds in three Parts. First, the Article dissects how possession is utilized in property doctrine and conceptualized in property theory. In so doing, the Article highlights property's reliance on possession as a means to disseminate information of in rem claims. Second, the Article distinguishes possession from legal thinghood, noting that these concepts comprise consecutive steps in the property process. Once thinghood delineates which assets are subject to property law, possession incorporates contextual information to discern the legal status of in rem claims over such assets, physical or otherwise. Finally, the Article proposes how this reanalysis of possession can provide a tech-neutral framework for analyzing intangibles, demonstrating how the dematerialized assets of the twenty-first

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[47] *See, e.g.*, Lewinsohn-Zamir, *supra* note 34, at 129 ("Within the legal arena, 'possession' typically is perceived as tangible, and property owners often receive greater protection against interference with their physical possession than against interference lacking any physical attribute."); JAMES E. PENNER, THE IDEA OF PROPERTY IN LAW 145–46 (2000) ("[W]hile the factual possession of land or chattels is at least possible, one cannot obviously possess a chose in action or intangible property like a patent or copyright."); Pascale Chapdelaine, *The Undue Reliance on Physical Objects in the Regulation of Information Products*, 20 J. TECH. L. & POL'Y 65, 93 (2015) ("Personal property ('chattels personal') is subdivided between 'choses in possession' and 'choses in action.' Choses in possession are generally associated with 'tangible property' (*i.e.*, those . . . 'capable of actual physical possession[]') or 'corporeal things, tangible, movable and visible[;] they are always in the possession of someone.' . . . '[C]hoses in action' are generally associated with 'intangible property' and are often negatively defined as 'embracing all forms of property not involving actual possession or right of possession as a necessary incident . . . .' Choses in action include debt, liquidated damages, promissory notes, shares, and copyright." (footnotes omitted)).

[48] 1 RESTATEMENT (FOURTH) OF PROPERTY div. II, § 1.1 cmt. i (AM. L. INST., Council Draft No. 1, 2019) ("Possession is limited to physical things (tangible things), including land and movable things.").

[49] Judge McCarthy in *Popov v. Hayashi*, No. 400545, 2002 WL 31833731, at *4 (Cal. Super. Ct. Dec. 18, 2002), for example, cited two textbooks in which possession required physical control: ROGER BERNHARDT & ANN M. BURKHART, REAL PROPERTY IN A NUTSHELL 3 (4th ed. 2000) ("Possession requires both physical control over the item and an intent to control it or exclude others from it."), and RAY ANDREWS BROWN, THE LAW OF PERSONAL PROPERTY 21 (Walter B. Raushenbush ed., 3d ed. 1975) ("The orthodox view of possession regards it as a union of the two elements of the physical relation of the possessor to the thing, and of intent.").

century may nonetheless rely on a unified theory of possession and its derived doctrines.

I. POSSESSION IN PROPERTY LAW

Although possession is doctrinally required and frequently dispositive in a wide range of cases—such as those about hunting foxes,[50] taking title of a neighbor's land,[51] or determining the validity of *inter vivos* gifts[52]—possession is not usually analyzed as a single "self-contained topic."[53] Rather, the concept is defined and redefined in the contexts of various individual doctrines.[54] As this Part demonstrates, however, the fragmentation of possession in American case law is illusory. Furthermore, the distinction between possession and ownership highlights the functional role of possession in manifesting the existence of in rem property claims.

A. Possession Is Not a Physical Fact

Before delving into the doctrine of possession and its role as a means of conveying information, it is necessary to address the common understanding of possession as a physical fact. If I possess a pencil, for example, it is likely to be in my hand, my bag, my desk, or my office. In any case, all of these possibilities do not depend on whether any information is conveyed. How is my possession, then, not defined by these physical facts?

This question is best answered by returning to another age-old debate: if a tree falls in the woods and there is no one around to hear it, does it make a sound? If sound refers to a "physical phenomenon," then the answer would be yes.[55] Waves of air pressure exist regardless of whether someone is there to perceive them. But if sound refers to a "human experience," then no sound

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[50] Pierson v. Post, 3 Cai. 175, 179 (N.Y. Sup. Ct. 1805) (discussing the doctrine of first possession).

[51] Murphy v. Holman, 289 S.W.3d 234, 237–38 (Mo. Ct. App. 2009) ("'Where the claimant occupies land without color of title, in order to prevail, he must show *physical possession* of the *entire area* claimed' . . . . 'Each case must be decided on its own peculiar facts.'" (first quoting Shuffit v. Wade, 13 S.W.3d 329, 335 (Mo. App. S.D. 2000); and then quoting Teson v. Vasquez, 561 S.W.2d 119, 126 (Mo. App. 1977))).

[52] Miller v. Neff's Adm'r, 10 S.E. 378, 381 (W. Va. 1889) ("It is the settled law both of this country and England that no parol gift, without actual delivery of the thing given, or some act of the donor which amounts to a complete transfer of the title and *possession* of the thing given, to the donee, can vest in the donee any right or title in or to it, or divest the right or title of the donor." (emphasis added)).

[53] Chang, *supra* note 21, at 103.

[54] *Id.* ("Possession is discussed and defined in the context of specific legal issues . . . ."); *see also* ROSTILL, *supra* note 10, at 13 (adopting, ultimately, the approach that "'possession' shifts its meaning from context to context, and that what constitutes possession for the purposes of one rule may not do so for the purposes of another").

[55] Jim Baggott, *Quantum Theory: If a Tree Falls in the Forest…*, OXFORD U. PRESS BLOG (Feb. 14, 2011), https://blog.oup.com/2011/02/quantum/ [https://perma.cc/T5G8-X2ZV].

is made.[56] This is because the word sound has an additional meaning; it can also refer to "the *sensation perceived* by the sense of hearing."[57] In this way, sound is defined as the cognitively derived "auditory impression" generated within one's mind in response to a physical stimulus.[58] Under this latter definition, sound cannot exist without perception.

What does this tell us about possession? Does possession exist if no one perceives it? If possession were a physical fact, like waves of air pressure, the answer would be yes. But if possession—like the sensation of sound—is a "human experience," perception is necessary for its very existence.[59] This Article argues that possession in property law is very much like the *sensation* of sound and exists solely through *perception*.

In fact, one of the most basic premises of property law—"that the first person to possess an object is its owner"[60]—only works if third parties *can perceive* when the object is possessed. It is in this way that possession serves as "a basic module" of property law; it employs human perception by "piggybacking on widespread custom, and if necessary, raw notions of salience themselves."[61] Such an approach ensures that property law's foundations are communally shared and "easy" to perceive.[62] Possession in property law is therefore best conceptualized as a means of information exchange rather than a physical fact.

B. Doctrinal Possession

Discussions of possession are splintered across the doctrines of American property law, whether in case law or scholarship.[63] When analyzing adverse possession, for example, scholars and judges might discuss a more narrow concept of possession that is largely confined to the doctrine of adverse possession itself, rather than discussing possession as a

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[56] *Id.*

[57] *Sound*, MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/sound [https://perma.cc/HDL9-SDTK] (emphasis added).

[58] *Id.*

[59] Relatedly, theorists disagree about whether the concept of possession exists apart from the concept of legal possession. Merrill, *supra* note 5, at 12 n.3 ("Anglo-American scholars, following the lead of Pollock, often distinguish between 'de facto possession' and 'legal possession.'" (quoting FREDERICK POLLOCK & ROBERT SAMUEL WRIGHT, AN ESSAY ON POSSESSION IN THE COMMON LAW 11–20 (Oxford, Clarendon Press 1888))). Some, including Professor Merrill, argue that "[t]here are not two ideas of possession—a legal and a natural . . . . There is only one idea, to which the actual rules of law do more or less imperfectly conform." *Id.* (quoting JOHN W. SALMOND, JURISPRUDENCE 295 (7th ed. 1924)).

[60] Friedman & Neary, *supra* note 34, at 680.

[61] Smith, *supra* note 11, at 67.

[62] *Id.* at 81.

[63] *See* Chang, *supra* note 21, at 104 ("[P]roperty scholars in the United States are far more interested in dealing with specific possession doctrines.").

more encompassing idea within property law as a whole.[64] In civil law countries, on the other hand, property analysts "are zealous in searching for the general principle and debating the conceptual framework of possession."[65] In spite of these different approaches, American doctrines of possession are not as fragmented as the conventional discourse may suggest.

As the following three short examples demonstrate, possession is called upon when property law requires the manifestation of information. Specifically, possession is used to convey the status of in rem property claims to third parties. Although some of these doctrines have since evolved, they demonstrate how American property law has relied on a singular vision of possession in a variety of circumstances.

1. Relativity of Title

Relativity of title refers to the idea that "possession is good title against all the world except those having a better title."[66] In the classic case of *Armory v. Delamirie*, for example, the English court was asked to determine whether "a chimney sweeper's boy" had property rights in a jewel he found during work even though he was not the jewel's true owner.[67] Applying the concept of relativity of title, the court concluded: "That the finder of a jewel, though he does not by such finding acquire an absolute property or ownership, yet he has such a property as will enable him to keep it against all but the rightful owner, and consequently may maintain trover."[68]

In other words, in a "possessory action," the current possessor beats all "subsequent possessors" except for the owner.[69] Some courts and analysts extend this relativity "to protect even *wrongful* possessors," including

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[64] *E.g.*, Gramlich v. Lower Southampton Township, 838 A.2d 843, 848 (Pa. Commw. Ct. 2003) (discussing "[t]he meaning of possession within the real property exception [to governmental immunity]"); McCammon v. Ischy, No. 03-06-00707-CV, 2010 WL 1930149, at *6 (Tex. App. May 12, 2010) (discussing "the legal meaning of possession in the context of oil and gas leases"); Marsh v. People, 389 P.3d 100, 105–07 (Colo. 2017) (discussing "the meaning of possession in the context of online child pornography"), *as modified on denial of reh'g* (Feb. 27, 2017). Nonetheless, when engaging in statutory interpretation, courts sometimes rely on the whole code rule, adopting the meaning of possession from other legislative contexts. *See, e.g.*, Ables v. State, 848 N.E.2d 293, 296 (Ind. Ct. App. 2006) ("While we have not previously addressed the meaning of 'possessed' in Ind.Code § 35–50–2–2, Indiana courts have addressed the meaning of possession in other contexts and have concluded that possession may be either actual or constructive.").

[65] Chang, *supra* note 21, at 104.

[66] Anderson v. Gouldberg, 53 N.W. 636, 637 (Minn. 1892).

[67] (1722) 93 Eng. Rep. 664, 664 (K.B.).

[68] *Id.* Trover was a common law cause of action seeking damages for conversion. *Trover*, BLACK'S LAW DICTIONARY (11th ed. 2019).

[69] Smith, *supra* note 11, at 84. However, "there is some doubt as to whether a wrongful possessor beats a subsequent rightful possessor." *Id.*

thieves, "against almost everyone else in the world."[70] In Connecticut, for example, relativity of title means that:

> Although a thief certainly has no *ownership* interest in a stolen item, the law recognizes his *possessory* interest: the well-settled common-law rule [is] that a thief in possession of stolen goods has an ownership interest superior to the world at large, save one with a better claim to the property.[71]

How can the law protect thieves in this way? Does it not resemble "theft by sanction of law"?[72] The Supreme Court of Colorado confronted this very question and concluded that—although transfer of *title* would indeed be unjust—"[a]ny other rule [of *possession*] would lead to an endless series of unlawful seizures and reprisals in every case where property had once passed out of the possession of the rightful owner."[73] A single wrongful possession in an asset's chain of custody would forever foreclose legal remedies for future possessors. In other words, without protecting possession, wrongful or otherwise, an infinite series of subsequent conversions could occur without legal recourse.

Relativity of title, however, does come at a cost. This cost can be seen in the law of finders.[74] According to relativity of title, a finder who comes into possession of a lost object does not immediately become its true owner. Rather, the finder gains a *possessory* right against everyone but the owner (or other prior possessor). In this way, the "finder acts as a bailee for the true owner," keeping possession of the found object while being "under a legal

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[70] John Lovett, *Disseisin, Doubt, and Debate: Adverse Possession Scholarship in the United States (1881-1986)*, 5 TEX. A&M L. REV. 1, 12–13 (2017) (emphasis added) (citing 2 FREDERICK POLLOCK & FREDERIC WILLIAM MAITLAND, THE HISTORY OF ENGLISH LAW: BEFORE THE TIME OF EDWARD I, at 78 n.5 (Cambridge Univ. Press Reissue 2d ed. 1968)) (summarizing the view put forth by influential property law scholars Frederick Pollock and Frederic William Maitland).

[71] Payne v. TK Auto Wholesalers, 911 A.2d 747, 751 (Conn. App. Ct. 2006) (emphasis added) (quoting United States v. Haqq, 278 F.3d 44, 50 (2d Cir. 2002)).

[72] Jensen v. Eagle Ore Co., 107 P. 259, 261 (Colo. 1910) (noting that Colorado law distinguishes between transferring title and transferring possessory rights, and while the law does not acknowledge ownership title of a wrongful possessor—because it "would have close resemblance to theft by sanction of law"—it does respect possessory interests of a wrongful possessor).

[73] *Id.* (quoting Anderson v. Gouldberg, 53 N.W. 636, 637 (Minn. 1892)).

[74] *See generally* Jennifer S. Moorman, *Finders Weepers, Losers Weepers?:* Benjamin v. Lindner Aviation, Inc., 82 IOWA L. REV. 717, 717–18 (1997) ("[T]he traditional American common law of found property requires courts to base their determinations of finders' rights on several common-law distinctions. . . . [A] finder's right to property depends upon the court's classification of the found item . . . determined by the intent and actions of the loser. Thus, a person who finds valuable property and seeks to judicially declare ownership of the find may be disappointed to learn that her interests are hardly the court's main consideration and that finders' lawsuits are often unsuccessful under traditional common-law doctrine." (citations omitted)).

duty not to convert the object to the finder's own use."[75] This legal duty remains in effect "until the statute of limitations for recovery of personal property runs."[76] This state of affairs places the finder in an unfortunate and precarious situation: the found assets must either (1) inefficiently lie fallow in the finder's safekeeping or (2) be enjoyed, consumed, or otherwise utilized by the finder, potentially subjecting the finder to a conversion lawsuit (if a litigious true owner is ever found).

From the perspective of the finder, relativity of title can be inefficient and annoying, to say the least. This is why a number of states have legislated so-called lost property statutes.[77] These laws generally "require the finder to deposit the item with law enforcement or other authorities for a period of time, and to provide or pay for notice to possible owners, and then enable the finder to reclaim custody and even obtain ownership if the true owner does not appear" within a designated amount of time, which is typically much shorter than the statute of limitations.[78] The need for these legislative solutions, however, demonstrates that relativity of title was not intended to give the finder legal certainty. Rather, relativity of title gets its normative momentum from enshrining possession itself.

The act of possession quite simply proffers the idea that an object is currently claimed, conveying that it is no longer available for another's unilateral acquisition. By protecting possession, even at the cost of legal

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[75] MERRILL & SMITH, *supra* note 2, at 127; *see also* Hertz Corp. v. Paloni, 619 P.2d 1256, 1258 (N.M. Ct. App. 1980) ("A finder of lost property is a typical case of a gratuitous bailee." (citing William K. Laidlaw, *Principles of Bailment*, 16 CORNELL L.Q. 286, 293 (1931))). Relatedly, courts in the United States have long held finders liable for misdelivery of goods. If a finder delivers the found goods "to any one, unless it be to the right owner, he shall be charged for them." Coykendall v. Eaton, 37 How. Pr. 438, 442 (N.Y. Gen. Term 1869) (quoting THEOPHILUS PARSONS, 1 LAW OF CONTRACTS 579–80 (Boston, Little, Brown & Co., 3d ed. 1857)).

[76] MERRILL & SMITH, *supra* note 2, at 127.

[77] Moorman, *supra* note 74, at 717 ("In response to problems caused by the common-law categories obfuscating finders' rights [by relying on ex-post classifications], several state legislatures have enacted finders or lost property statutes." (footnotes omitted)).

[78] 2 THOMPSON ON REAL PROPERTY § 13.04(d)–(e) (David A. Thomas ed., 2021). But "[a] vast variety exists in state statutory approaches to finders' duties and rights." *Id.* § 13.04(e)(3); *see, e.g.*, FLA. STAT. § 705.102(1) (2021) ("Whenever any person finds any lost or abandoned property, such person shall report the description and location of the property to a law enforcement officer."); 765 ILL. COMP. STAT. 1020/27 (2021) ("[I]f such property found is of the value of $100 or upwards, the finder or finders shall, within 5 days after such finding file in the circuit court of the county, an affidavit of the description thereof, . . . that no alteration has been made in the appearance thereof since the finding of the same, . . . and that the affiant has not secreted, withheld or disposed of any part thereof."); OKLA. STAT. tit. 15, § 516 (2021) ("The finder of a thing may sell it, if it is a thing which is commonly the subject of sale, when the owner cannot with reasonable diligence be found; or, being found, refuses upon demand to pay the lawful charges of the finder, in the following cases: 1. When the thing is in danger of perishing, or losing the greater part of its value; or, 2. When the lawful charges of the finder amount to two-thirds of its value.").

certainty for finders, relativity of title reinforces the legal validity of these manifested claims.

Ultimately, relativity of title demonstrates that the law expects and requires third parties to discern whether an object is possessed and act accordingly. Inherent in this requirement is the idea that possession is communicative and provides information to all who seek it.[79] Returning to *Armory v. Delamirie*, it is perhaps too obvious that the plaintiff's actions conveyed his possessory claim over the jewel in question. If this were not so, the defendant—the subsequent converter of the boy's jewel—would not have first offered the boy money for the jewel before stealing it.[80] Thus, relativity of title relies on an understanding of possession built on communication and perception.

2. Adverse Possession

Conventional explanations of adverse possession describe it as merely the consequence of the statute of limitations in the context of real property.[81] If this were the case, however, the doctrine would be solely subtractive. It would "merely terminate the [owner's] access to judicial assistance in recovering possession of his land" once the statute of limitations ran.[82] In other words, adverse possession would only *subtract* the right to judicial remedies from the original owner (OO). But that cannot be the complete explanation. It fails to describe the *additive* uses of possession in two key ways.

The first additive aspect of adverse possession is the consequence of the doctrine itself: granting the adverse possessor (AP) a full property right against the world stemming from a new root of title, while extinguishing the OO's original title.[83] In this way, adverse possession quiets title by relying on possession as proof of ownership. As Professor Jeffrey Stake summarized, courts have at least two sources of evidence in cases of adverse possession: on the one hand, courts can rely on "[w]itness testimony"

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[79] *Cf.* Christopher M. Newman, *Bailment and the Property/Contract Interface* 10–12 (Geo. Mason Univ. Legal Studies Research Paper Series LS 15-12, 2015), https://papers.ssrn.com/a=2654988 [https://perma.cc/8685-CUQL] (categorizing the "duties imposed by property norms" into simplified steps and positing that in order to adhere to certain steps, "one need only employ information that is accessible either from the appearance or immediate context *of the thing* itself, or from deduction based on cultural norms" (emphasis added)).

[80] *See* (1772) 93 Eng. Rep. 664, 664 (K.B.).

[81] John G. Sprankling, *An Environmental Critique of Adverse Possession*, 79 CORNELL L. REV. 816, 816 (1993) ("Conventional legal wisdom explains adverse possession as the product of a statute of limitations governing actions to recover possession of real property.").

[82] Jeffrey Evans Stake, *The Uneasy Case for Adverse Possession*, 89 GEO. L.J. 2419, 2422 (2000).

[83] *Id.* ("[A]dverse possession takes . . . one conceptual step further by providing that the adverse possessor . . . actually gains legal title, displacing the record owner . . . .").

regarding past transactions, titles, and deeds, and on the other, courts can rely on "possession."[84] As "[w]itness testimony . . . grows less reliable over time," it is only logical to place a growing emphasis on possession:

> [E]vidence of current possession is, by definition, current and does not grow less reliable over time. Indeed, as the possession lengthens, the very fact of possession becomes more reliable as an indicator of title. A person living on land for thirty years is much more likely to be the owner than a person who has been living on land for thirty days. So, as transfer evidence becomes less reliable, possession evidence becomes slightly more reliable.[85]

In this way, possession is relied upon to communicate the status of in rem property rights to the court itself.[86] The doctrine of adverse possession, then, can be reconceptualized as the law's validation of possession's manifested claims against all other sources of evidence.

The second key aspect of adverse possession relates to the AP's possessory rights. The AP does not wait until the statute of limitations runs to then receive possessory rights. On the contrary, the AP gains possessory rights from the very first day possession is taken: "[F]rom the beginning of his possession period, a putative adverse possessor has an interest in the property enforceable against all other parties, except the true owner."[87]

The possessor's right is not merely theoretical. The AP's "possessory interest includes the right to exclude all others from the property except the

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[84] *Id.* at 2451.

[85] *Id.*

[86] This point is further strengthened by the fact that even bad faith adverse possessors could have gained title through the doctrine. *See* Lee Anne Fennell, *Efficient Trespass: The Case for 'Bad Faith' Adverse Possession*, 100 NW. U. L. REV. 1037, 1053–59 (2006) (giving rationales for adverse possession's indifference to bad faith); s*ee, e.g.*, Fraley v. Minger, 829 N.E.2d 476, 485 (Ind. 2005) ("The acquisition of title by adverse possession is predicated . . . without reference to the good or bad faith of the adverse claim asserted by the occupant." (quoting May v. Dobbins, 77 N.E. 353, 354 (Ind. 1906))). *But cf.* Richard H. Helmholz, *Adverse Possession and Subjective Intent*, 61 WASH. U. L.Q. 331, 356 (1983) (explaining that in spite of the black letter doctrine, bad faith adverse possessors rarely succeed in court). Note also that many states have legislated good faith requirements into adverse possession. *See, e.g.*, Prax v. Zalewski, 400 P.3d 116, 119 (Alaska 2017) ("The Alaska legislature amended [Ch. 147, § 3, SLA 2003] in 2003 to eliminate bad faith adverse possession claims."); Armstrong v. Cities Serv. Gas Co., 502 P.2d 672, 680 (Kan. 1972) ("[W]e see statutory authorization of a doctrine of adverse possession (or prescription in the case of easements) which gives protection to those who in good faith enter and hold possession of land for the prescribed period in the belief it is theirs.").

[87] Lensky v. DiDomenico, 409 P.3d 457, 462–63 (Colo. App. 2016) (internal quotation marks omitted); *id.* at 463 ("The possession of one holding in adverse possession is good as against strangers. . . . The courts will protect the adverse claimant against all the world except the true owner." (quoting 3 AM. JUR. 2D *Adverse Possession* § 232 (2016))); *id.* ("During the period of adverse possession, an adverse claimant has only an inchoate right which if pursued and protested may ripen into title. However, he or she has an ownership which the courts will protect against all the world except the true owner or someone showing a better right." (quoting 2 C.J.S. *Adverse Possession* § 275 (2016))).

true owners."[88] Therefore, while the AP has legal possessory rights against the world (except the OO or other prior possessor), the AP is also under a duty of care to the OO and, if sued by the OO, will be held liable for any damages to the property. Such a situation sounds very much like the legal status of a finder, discussed above. This is no coincidence. Possession creates temporary uncertainty for the finder and for the AP (i.e., having duties which may or may not be enforced by their respective OOs) as a means to ensure more certainty overall. Any other individual need not know whether OO or AP has legal title to the land. All that matters is that *someone* does possess it, that the land is possessed. As long as possession is communicated and contextually discernable, possession has done its job in conveying in rem property claims.

Possession's role in conveying the status of in rem rights is, in fact, integral to the doctrine of adverse possession. In Mississippi, for example, "[a] possessor must 'fly his flag over the property' in such a way as to put the [OO]," the court, and everyone else "on notice that the property is 'being held under an adverse claim of ownership.'"[89] The Supreme Court of Wyoming further clarifies that "[a]n adverse possession claimant must not only raise the flag of adverse possession, but must '*keep it flying*.'"[90] Such requirements make sense: the law expects third parties to respect possession, and this expectation is justified because it also requires possession to be manifested and contextually discernable.[91] Thus, possession in the doctrine of adverse possession is very much the same possession as in relativity of title and refers to the manifestation of in rem claims.

3. Self-Help and the Defense of Possession

Does the law grant more power to owners or to possessors? In the situations described above, possessors (finders and APs) had property rights against the world except against the original true owner. Thus, it may seem that the law prioritizes ownership over possession, but that is not always the case. As Professor Thomas Merrill noted, "A person in possession of land or chattels may use self-help to defend possession against intrusions or takings by strangers, including the use of reasonable force."[92] Owners, on the other

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[88] *Id.* at 463 (citing 3 AM. JUR. 2D *Adverse Possession* § 232 (2016)).

[89] Scott v. Anderson-Tully Co., 154 So. 3d 910, 916 (Miss. Ct. App. 2015) (quoting Apperson v. White, 950 So. 2d 1113, 1117 (Miss. Ct. App. 2007)).

[90] White v. Wheeler, 406 P.3d 1241, 1247 (Wyo. 2017) (emphasis added) (quoting Wyo-Ben, Inc. v. Van Fleet, 361 P.3d 852, 859 (Wyo. 2015)).

[91] Adverse possession is a great example of how the discernability of possession is contextually discerned. "Possessory acts necessary to establish a claim of adverse possession may vary with the characteristics of the land . . . ." *Apperson*, 950 So. 2d at 1117 (quoting Walker v. Murphree, 722 So. 2d. 1277, 1281 (Miss. Ct. App. 1998)).

[92] Merrill, *supra* note 5, at 19.

hand, are "much more constrained" when "seeking to recover property that is in possession of another."[93] This is the case whether in the law of torts, in the Uniform Commercial Code, or in landlord–tenant law, as described below.

In tort law, for example, the "privilege" of an owner "to use force" to repossess a taken chattel was historically limited to when the owner was "in effect defending his *original* possession rather than interfering with that of another."[94] In other words, once possession was lost, the legal owner's only permissible recourse was through the legal system. This principle of tort law can be seen in *Watson v. Rheinderknecht*, a surprisingly dramatic case concerning the sale of sheep.[95] The "[d]efendant [seller] had agreed to sell and deliver to plaintiff [buyer] a number of sheep."[96] After the sheep were successfully delivered, the buyer "insisted that there were too many bucks [male sheep] in the lot to conform to the contract" and so attempted to pay $40 less than the amount originally agreed upon.[97] The seller rejected this offer and believed, correctly, that the sale was no longer valid. The seller then "demanded [back] the sheep," but the buyer "refused to surrender possession."[98] Due to this disagreement, "[t]he parties seized each other, and . . . some blows were exchanged."[99] Ultimately, the seller "took forcible possession of the sheep."[100]

The buyer sued the seller for battery, raising the question of whether the seller had the legal privilege of using force to lawfully (re)take his sheep, which were indeed lawfully the seller's. In its analysis, the court began with possession. The seller "had himself *delivered* the sheep to the [buyer], and [the sheep] were in the *peaceable and exclusive possession* of the [buyer]."[101] Everyone, including the seller, conceded to this fact. Once the buyer had possession of the sheep, "[t]he courts were open to [the seller] if he was

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[93] *Id.*

[94] VICTOR E. SCHWARTZ, KATHRYN KELLY & DAVID F. PARTLETT, PROSSER, WADE, AND SCHWARTZ'S TORTS: CASES AND MATERIALS 121 (13th ed. 2015) (emphasis added). The doctrine of "fresh pursuit," however, allows force when there is "prompt discovery of the dispossession, and prompt and persistent efforts to recover the chattel." *Id.* (emphasis omitted). The doctrine has been extended to allow reasonable force when repossessing assets that were taken by "force or fraud," though it nonetheless requires that the pursuit be "fresh." *Id.* (emphasis omitted).

[95] 84 N.W. 798, 798 (Minn. 1901).

[96] *Id.*

[97] *Id.*

[98] *Id.* at 799.

[99] *Id.*

[100] *Id.*

[101] *Id.* at 798–99 (emphasis added).

entitled to possession of the property, and there was no excuse or warrant for his attempt to forcibly take it out of [the wrongful buyer]'s actual custody."[102]

The court concluded that the seller's use of force to *regain* possession of the sheep was unjustifiable. It surely did not help that the seller "deliberately assaulted [the buyer], and threw him" down an ice-covered cattle chute, but the principle against the use of force was still sound.[103] On the other hand, although the buyer's possession was itself wrongful, he was entitled to forcefully "defend [that] possession."[104] Accordingly, the court concluded that "the assault and battery upon the [wrongful buyer] was without the slightest justification, [and] that the [seller] was the aggressor from beginning to end."[105] In sum, the buyer's possession, however improper, conveyed an in rem claim whose legal impropriety should have been addressed through the courts.[106]

The Uniform Commercial Code (UCC) provides a similar result: "self-help repossession" of an asset under a security interest "is permitted" but only when limited to "'peaceable' methods."[107] In other words, under § 9-609 of the UCC, "[t]he retaking of possession by a seller under a conditional sale" is allowed but only to the extent that it "can be done without breach of the peace."[108] As Professor Merrill summarized, "Force, reasonable or not, is forbidden."[109] Thus, under the UCC, "if the secured party, or a third party repossessing for the secured party, causes a breach of peace while repossessing the collateral, the repossession will be wrongful, and the debtor may sue the secured party in conversion for return of the collateral or damages."[110]

Notice that in this case, the reneging buyer, if forcefully deprived of the delivered asset, can sue in conversion for return of the asset not yet paid for! Here, the possessor has legal protections against the true owner, who could have regained possession through a court proceeding. Again, the law relies

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[102] *Id.*

[103] *Id.* at 799.

[104] *Id.*

[105] *Id.*

[106] *Id.* ("The courts were open to [the seller] if he was entitled to possession of the property, and there was no excuse or warrant for his attempt to forcibly take it out of [the buyer]'s actual custody.").

[107] Merrill, *supra* note 5, at 20 (citing Williams v. Ford Motor Credit Co., 674 F.2d 717, 719 (8th Cir. 1982)); U.C.C. § 9-609 (AM. L. INST. & UNIF. L. COMM'N 2001).

[108] SCHWARTZ ET AL., *supra* note 94, at 122.

[109] Merrill, *supra* note 5, at 20.

[110] Ford Motor Credit Co. v. Ryan, 939 N.E.2d 891, 907 (Ohio Ct. App. 2010) (internal alteration omitted) (quoting 9 WILLIAM D. HAWKLAND, RICHARD A. LORD, CHARLES C. LEWIS & JAMES S. ROGERS, UNIFORM COMMERCIAL CODE SERIES § 9–503:3 (2001)).

upon possession to proclaim the status of in rem claims and subsequently expects the relevant parties to respect those claims.

Finally, in the context of landlords and tenants, the law's reverence toward possession is just as strong, if not stronger. "[A] growing number of courts . . . hold that the rightful owner can retake possession of his land only if he does *not* use force."[111] Similar to the UCC plaintiff, "the party in peaceful possession may have a claim for assault and battery or trespass to his goods occurring in the course of a forcible entry."[112] In California, for example, "[t]he failure of the tenant to pay rent does not *ipso facto* work a forfeiture of the leasehold; it merely gives the lessor the right to terminate the lease *in the manner provided by law*."[113] In fact, in California, lessors may not "take possession by forcible entry" even if there is "a provision in the lease" that supposedly allows it.[114]

Thus, in each of these three examples, the law expects those who can discern possession to respect it.

C. Definitions (or the Lack Thereof)

As these examples have shown, various doctrines of property law rely on possession in similar ways. In spite of this uniform *reliance*, however, the doctrines do not provide a uniform *definition* of possession. Each doctrine only attempts to pinpoint the relevant aspects of possession "in the context of specific legal issues, such as the rule of first possession and the rule of adverse possession."[115]

This lack of a uniform definition is not inherently problematic. The words "property" and "possession" are, after all, colloquial terms in American English that even the general public understands.[116] Couldn't

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[111] SCHWARTZ ET AL., *supra* note 94, at 125 (emphasis added). *But see id.* ("A minority of states permit an individual who has the legal right to immediate possession of land to attempt to retake possession by use of reasonable force short of causing death or serious injury." (citing Shorter v. Shelton, 33 S.E.2d 643, 647 (Va. 1945))).

[112] *Id.* (citing Lobdell v. Keene, 88 N.W. 426 (Minn. 1901)).

[113] Lamey v. Masciotra, 78 Cal. Rptr. 344, 348 (Ct. App. 1969) (emphasis added) (quoting Haydell v. Silva, 19 Cal. Rptr. 705, 707 (Ct. App. 1962)); *see also, e.g.*, Spinks v. Equity Residential Briarwood Apartments, 90 Cal. Rptr. 3d 453, 487 (Ct. App. 2009) ("[T]he law imposes a duty on landlords not to disturb an occupant's possession except by legal process.").

[114] *Lamey*, 78 Cal. Rptr. at 348 (quoting *Haydell*, 19 Cal. Rptr. at 707). Such a provision may purport to allow a lessor to "enter and remove all persons from the demised premises" after "rent be due and unpaid." *Id.* (quoting *Haydell*, 19 Cal. Rptr. at 707).

[115] *See* Chang, *supra* note 21, at 103.

[116] In fact, both the noun "property" and the verb "possess" are listed as part of the 3,000 most common words in English. *3000 Most Common Words in English*, EF (ENG. FIRST) RES. FOR LEARNING ENG. (Sept. 24, 2020), https://www.ef.edu/english-resources/english-vocabulary/top-3000-words/ [https://perma.cc/4WFQ-HMYG].

judges, juries, and legal scholars define property and possession by merely referring to a dictionary? Unfortunately, as Professor Jill Fraley noted, the dictionary definitions of these two terms are frequently circular.[117] According to Merriam-Webster's dictionary, for example, to possess means "to have and hold as *property*,"[118] while property means "something owned or *possessed*."[119] Although each definition by itself is not self-referential, the two definitions together are "covertly circular."[120] They create "a chain of definitions" eventually leading to the original term.[121]

Intuitively, "circular definitions require us already to have mastered" at least one of the terms in the chain, otherwise, no information can be gleaned about any of them.[122] If the word "property" is a mystery to me, then I cannot understand the word "possession"; if I cannot understand the word "possession," then I cannot understand the word "property."

Philosophers have noted that circular definitions may nonetheless be useful in "display[ing] the concept in a way that reveals overlooked" features or relationships, "which competent speakers simply take for granted."[123]

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[117] *See* Fraley, *supra* note 15, at 56 (noting further that "we have been oddly comfortable with a circular definition"). The law's comfort with circularity in the definition of possession extends to the criminal context. In New York, for example, "[a] person is guilty of criminal *possession* of stolen property in the fifth degree when he knowingly *possesses* stolen property, with intent to benefit himself or a person other than an owner thereof or to impede the recovery by an owner thereof." N.Y. PENAL LAW § 165.40 (McKinney 2021) (emphasis added). For other examples, see KY. REV. STAT. ANN. § 514.150 (West 2022) ("A person is guilty of *possession* of stolen mail matter when he knowingly or having reason to believe that it has been the subject of theft in violation of KRS 514.140: (a) *Possesses*; (b) Buys; (c) Receives; (d) Conceals; (e) Deals in; or (f) Sells; any mail matter." (emphasis added)); WASH. REV. CODE § 9A.56.140 (West 2022) ("'*Possessing* stolen property' means knowingly to receive, retain, *possess*, conceal, or dispose of stolen property knowing that it has been stolen and to withhold or appropriate the same to the use of any person other than the true owner or person entitled thereto." (emphasis added)); and OR. REV. STAT. § 819.300 (2021) ("A person commits the offense of *possession* of a stolen vehicle if the person *possesses* any vehicle which the person knows or has reason to believe has been stolen." (emphasis added)).

[118] *Possess*, MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/possess [https://perma.cc/5CBQ-VZZG] (emphasis added).

[119] *Property*, MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/property [https://perma.cc/VQ5T-QSES] (emphasis added).

[120] J.A. Burgess, *When Is Circularity in Definitions Benign?*, 58 PHIL. Q. 214, 214 (2008) (emphasis omitted).

[121] *Id.*

[122] *Id.* at 215 ("But blatantly circular definitions require us already to have mastered the *definiendum*, for that very word appears as part of the *definiens*. To put it briefly and bluntly, if we understand a circular definition at all, that is because we already possess mastery of the *definiendum*, so the definition is worthless to us.").

[123] *See id.* at 217–18; *see also* Anil Gupta, *Remarks on Definitions and the Concept of Truth*, 89 PROC. ARISTOTELIAN SOC'Y 227, 233 (1989) ("[T]he outright rejection of circular definitions in logic may be too precipitous. For their behaviour is very much like that of a concept that we do accept, and want to accept. Perhaps a more general logic of definitions is possible that will show us how to make sense of, and work with, circular definitions." (emphasis omitted)).

However, such utility is only available if "the intended recipients have already mastered" the terms in question.[124] Unfortunately, this is not the case for possession. When a precise definition and understanding of possession is required, disagreement and controversy are sure to rear their heads.[125] As the following examples from case law and property scholarship demonstrate, a singular definition of possession is far from settled.

1. Possession in Case Law

Although a comprehensive analysis of "possession" in American property case law is outside the scope of this Article, the case of *Popov v. Hayashi* offers a paradigmatic example to demonstrate how the concept of possession is incorporated into judicial analyses.[126] Judge McCarthy's opinion exemplifies the complex task of defining possession in the context of a baseball game.[127] On October 7, 2001, a professional baseball player named Barry Bonds hit a record-setting home run and "[t]he ball that found itself at the receiving end of Mr. Bond[s]'s bat garnered some of that attention."[128] Two audience members, Alex Popov and Patrick Hayashi, also found themselves in the spotlight. They were avid baseball fans and had brought baseball gloves to the stadium, "which they anticipated using if [Barry Bonds's] ball came within their reach."[129] And it did!

> When the seventy-third home run ball went into the arcade, it landed in the upper portion of the webbing of a softball glove worn by Alex Popov. While the glove stopped the trajectory of the ball, it is not at all clear that the ball was secure. . . . Even as the ball was going into his glove, a crowd of people began to engulf Mr. Popov. He was tackled and thrown to the ground while still in the process of attempting to complete the catch. . . . Eventually, Mr. Popov was buried face down on the ground under several layers of people. . . . Mr. Popov intended at all times to establish and maintain possession of the ball. At some point the ball left his glove and ended up on the ground. It is impossible to establish the exact point in time that this occurred or what caused it to occur.
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> Mr. Hayashi was standing near Mr. Popov when the ball came into the stands. He, like Mr. Popov, was involuntarily forced to the ground. He committed no wrongful act. While on the ground he saw the loose ball. He picked it up, rose to his feet and put it in his pocket. . . . When [Mr. Popov] saw

[124] *See* Burgess, *supra* note 120, at 218.

[125] Even the Council Draft of the *Fourth Restatement of Property* promulgated the idea that "although possession can be given a broad, abstract definition, whether possession exists in any particular context will depend on factors particular to that context." 1 RESTATEMENT (FOURTH) OF PROPERTY div. II, ch. 1, intro. note (AM. L. INST., Council Draft No. 1, 2019).

[126] No. 400545, 2002 WL 31833731, at *3–8 (Cal. Super. Ct. Dec. 18, 2002).

[127] *Id.*

[128] *Id.* at *1.

[129] *Id.*

> that Mr. Hayashi had the ball he expressed relief and grabbed for it. Mr. Hayashi pulled the ball away. Security guards then took Mr. Hayashi to a secure area of the stadium.[130]

Popov subsequently sued Hayashi under claims for conversion, trespass to chattel, injunctive relief, and constructive trust. For each of these, Popov asserted a violation of his property interests in the baseball. The court thus was required to determine whether Popov's actions were "sufficient to create a legally cognizable [property] interest in the baseball."[131] In its analysis, the court noted:

> The parties fundamentally disagree about the definition of possession. In order to assist the court in resolving this disagreement, four distinguished law professors participated in a forum to discuss the legal definition of possession. The professors also disagreed [with each other]. The disagreement is understandable. Although the term possession appears repeatedly throughout the law, its definition varies depending on the context in which it is used. Various courts have condemned the term as vague and meaningless.[132]

Not only was there no agreement amongst property scholars for Judge McCarthy to rely upon, but the court also emphasized that "[w]e will never know if Mr. Popov would have been able to retain control of the ball had the crowd not interfered with his efforts to do so. Resolution of that question is the work of a psychic, not a judge."[133] Thus, without a single grain of legal or factual certainty, the court was left with nothing other than the vague expectations of baseball fans.[134] Under this set of circumstances, the court frantically: (1) created a new "pre-possessory interest" in the baseball,[135] (2) adopted a principle of "equitable division," which "has its roots in ancient Roman law" and had never been previously used in California,[136] and (3) ultimately "declare[d] that both plaintiff and defendant have an equal and

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[130] *Id.* at *1–2.

[131] *Id.* at *3–4.

[132] *Id.* (footnotes omitted).

[133] *Id.* at *3.

[134] *Id.* at *5 ("Not only is it physically possible for a person to acquire unequivocal dominion and control of an abandoned baseball, but fans generally expect a claimant to have accomplished as much.").

[135] *Id.* at *6 ("Where an actor undertakes significant but incomplete steps to achieve possession of a piece of abandoned personal property and the effort is interrupted by the unlawful acts of others, the actor has a legally cognizable pre-possessory interest in the property. That pre-possessory interest constitutes a qualified right to possession which can support a cause of action for conversion.").

[136] *Id.* at *7–8. The concept of equitable division "is useful in that it 'provides an equitable way to resolve competing claims which are equally strong.' Moreover, 'it comports with what one instinctively feels to be fair.'" *Id.* (quoting R.H. Helmholz, *Equitable Division and the Law of Finders*, 52 Fordham L. Rev. 313, 315 (1983)) (internal alterations omitted).

undivided interest in the ball."[137] The judge ordered that "the ball must be sold and the proceeds divided equally between the parties."[138] From this entire debacle, the only clear lesson is that possession was truly a difficult concept for the court to define.

2. Scholarship and the ALI's Fourth Restatement of Property

In academic literature, the concept of possession has been equally hard to pin down.[139] As the late Professor Burke Shartel noted almost a century ago, "Possession is and always has been a vague concept despite the fact that almost every legal theorist . . . essayed at some time in his career to rescue this lorn concept from the mystery and confusion in which it was enveloped."[140] Thus, possession has come to be known as "one of the most vague of all vague terms."[141]

In the context of American legal scholarship, however, the lack of success in defining possession is due to more than just the ambitiousness of the question at hand. Rather, the search for a unified definition was halted in the early twentieth century due in part to the rise of the American Legal Realists, who included Professor Shartel himself in their ranks.[142] Under the realist model, possession was *not* an integral foundation of property law.[143] Instead, realists argued that "property rights were created [solely] by positive law and were designed to serve whatever goals the community wished to

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[137] *Id.* at *8.

[138] *Id.* Unlike in the biblical story of "the wisdom of King Solomon[]," Judge McCarthy's decision did not "only threaten[] to divide the baby, thereby precipitating identification of the true mother—the claimant who relinquished her claim in the face of the threatened division." Schaffer v. Comm'r, 779 F.2d 849, 852 n.2 (2d Cir. 1985). Here, Judge McCarthy literally divided the baby.

[139] CRAWFORD, *supra* note 1, at 2 ("There is no consensus . . . on whether possession is simply a fact which . . . creates a property right, or whether it also describes a species of legal right in an object of property that is different from ownership. Even amongst those who agree that possession is a fact . . . there is no agreement on whether it describes a simple, observable fact about physical control or a more complex, and uniquely legal, concept concerned with the particular intention displayed by the possessor."); *see also* 1 RESTATEMENT (FOURTH) OF PROPERTY div. II, § 1.1 cmt. a (AM. L. INST., Council Draft No. 1, 2019) ("The definition of possession has been a matter of considerable scholarly debate, which has produced a divergence of views.").

[140] Shartel, *supra* note 1, at 611.

[141] 1 RESTATEMENT (FOURTH) OF PROPERTY div. I, § 1.1, rep. note (Council Draft No. 1) (quoting Reg. v. Smith, 6 Cox C.C. 554, 556 (1855)). Possession also "shifts its meaning according to the subject matter to which it is applied." *Id.* (quoting *Smith*, 6 Cox C.C. at 556 (1855)).

[142] James W. Hill, *Trade Secrets, Unjust Enrichment, and the Classification of Obligations*, 4 VA. J.L. & TECH. 1, 5 (1999) ("The nineteenth-century theory of common-law property rights, based on possession and exclusive control, declined somewhat with the rise of legal realism in the early twentieth century." (footnote omitted)); *see infra* notes 145–146 and accompanying text (discussing some of Professor Shartel's contributions to Legal Realism).

[143] Charles Tait Graves, *Trade Secrets as Property: Theory and Consequences*, 15 J. INTELL. PROP. 39, 66–67 (2007) ("[P]roperty was not a logical entailment of fundamental truths about possession and ownership.").

pursue."[144] Professor Shartel, for example, argued that "possession [could] only be usefully defined with reference to the purpose in hand"[145] and that considerations of social policy were the only proper analytical frame.[146] If this were true, defining possession would be reduced to an exercise in statutory interpretation or economic analysis, and the search for a single unified definition would indeed be fruitless.

The realist approach, however, has since been challenged,[147] and several scholars have brought a renewed sense of vigor to the pursuit of "alternative, formalist definition[s] of property" and possession.[148] Notably, the scholarly work generated by this pursuit has not remained in the ivory tower (or its basement library). This work has made its way into the American Law Institute.[149] In the early Council Draft of the *Fourth Restatement of Property*, the Council sought to merge scholarly conceptualizations of property and possession into its doctrinal analyses. It did so in an attempt to derive analytically useful definitions of *property*, *legal thinghood*, *ownership*, and *possession* itself, among other concepts.[150]

The problem, however, is that there is no consensus among commentators about what possession actually is. Professor Yun-Chien Chang, for example, noted that there are at least four competing—and sometimes conflated—definitions of possession used in contemporary scholarship: (1) possession is actual control; (2) possession is a fact;

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[144] Robert G. Bone, *A New Look at Trade Secret Law: Doctrine in Search of Justification*, 86 CALIF. L. REV. 241, 260 (1998).

[145] Shartel, *supra* note 1, at 612.

[146] *Id.* at 619.

[147] Katrina M. Wyman, *The New Essentialism in Property*, 9 J. LEGAL ANALYSIS 183, 184, 188 (2017). Beginning in "the late 1990s, a growing number of scholars in the USA and abroad" rejected the bleak realist view of property and possession. *Id.* at 184. These scholars, including Thomas Merrill and Henry Smith, have engaged in a multidecade project "to reclaim property as a distinct legal category with a definable essence." *Id.*; *see also, e.g.*, CRAWFORD, *supra* note 1, at 2 ("[P]ossession is so deeply rooted in our system of private property rights that any attempt to extirpate it from the law of property would be doomed to fail.").

[148] *See* Wyman, *supra* note 148, at 185. Although members of this group are sometimes called "essentialists" or "new essentialists," Merrill and Smith have clarified that the term may not truly capture their complete analysis of the "architecture of property." Thomas W. Merrill & Henry E. Smith, *The Architecture of Property*, *in* RESEARCH HANDBOOK ON PRIVATE LAW THEORIES 134, 153–54 (Hanoch Dagan & Benjamin Zipursky eds., 2021). For reference on the origin of these labels, see AMNON LEHAVI, THE CONSTRUCTION OF PROPERTY: NORMS, INSTITUTIONS, CHALLENGES 46 (2013) (labeling this group of scholars as the "new essentialist[s]"), and Wyman, *supra* note 147, at 184 n.6 (explaining the labels and cataloging the "new essentialist scholarship").

[149] As Professor Katrina Wyman noted, "This definitional project is now highly salient because the American Law Institute is embarked on a fourth restatement of property project, for which Smith is the lead reporter and Merrill is one of the associate reporters." Wyman, *supra* note 147, at 185.

[150] 1 RESTATEMENT (FOURTH) OF PROPERTY div. I, § 1–div. II, § 1.4 (AM. L. INST., Council Draft No. 1, 2019).

(3) possession is a subsidiary property right; (4) possession is a basis for acquiring or relinquishing property rights.[151] Given this diversity of thought, it is no wonder that the Council Draft of the *Restatement* struggled to provide a singular unified vision of possession. The tension between Professor Chang's four distinct scholarly definitions of possession is expectedly present. The hedging and qualifications built into the Draft's analysis and definition of possession demonstrate the still unresolved nature of the concept:

> Although possession is a critical element in the law of property, possession is not a simple fact, *at least* not in the sense of a statement about the physical relationship between persons and things. Nor does it describe a *purely* legal status, such as ownership. Instead, possession is a perceived relationship between persons and things, formed *in part* by the physical relationship between persons and things and *in part* by social knowledge about the likely intentions that persons have with respect to things. Thus, *although* possession can be given a broad, abstract definition, whether possession exists in any particular context will depend on factors particular to that context.[152]
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> . . . .
>
> § 1.1. Possession
>
> A person has possession of a physical thing if the person has established *effective control* over that thing and *manifests an intent to maintain such control* to the *exclusion of others*.[153]

The lack of academic and judicial consensus led the Council Draft of the *Restatement* to incorporate elements from the various conceptualizations of possession. For example, the requirement of *effective control* and the requirement of *communicating effective control* are listed separately.[154] Similarly, the requirement of *intent to maintain control* is listed separately from the requirement to *manifest intent to maintain control*.[155]

While such a multifaceted analysis may have served the needs of a restatement as helpful *descriptions* of possession, it does not sufficiently address the need for a single coherent and uniform *definition*.[156] In its introductory note, the Council acknowledged that "possession is a perceived

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[151] Chang, *supra* note 21, at 106.

[152] 1 RESTATEMENT (FOURTH) OF PROPERTY div. II, ch. 1, intro. note (Council Draft No. 1) (emphasis added).

[153] *Id.* div. II, § 1.1 (emphasis added).

[154] *Id.* div. II, § 1.1 cmts. d–e.

[155] *Id.* div. II, § 1.1 cmts. f–g.

[156] A description of property rights "does not amount to an analysis. It provides no insight into the norms that make up the law and, indeed, it tends to obscure them because, purporting to be fundamental, it suggests that nothing further needs to be said." JAMES E. PENNER, PROPERTY RIGHTS: A RE-EXAMINATION 56 (2020) (emphasis omitted).

relationship between persons and things, formed . . . *in part* by social knowledge about the likely intentions that persons have with respect to things."[157] The proposed definition in the actual text, however, returns to the various itemized and conflated definitions of possession, as described above, and continues to promulgate the idea that possession is limited to physical things.[158] Such a proposition no longer aligns with emerging technologies, economic realities, or shared conceptualizations of intangible assets such as Bitcoin.[159] Thus, the analytical underpinning of possession has not yet been adequately determined and further academic inquiry is essential. This Article aims to be part of continued efforts to refine and distill the definition of possession in property law.

II. POSSESSION AND THINGHOOD

The word "thing" is the bane of middle school English teachers everywhere. It is criticized as being common, generic, vague, and ultimately meaningless.[160] Writing guides, for example, advise authors to "use words that are appetizing and useful" instead of the dreaded word "thing." The rationale behind this piece of advice is that "the word 'thing' is a shortcut and a sign of vague, watered-down writing."[161]

Given this educational background, students of property law may be unsurprised when they hear that "property is not about *things* at all, and [that] serious social scientists and policy makers have . . . got beyond the myth that it is."[162] This statement, or a variant thereof, is frequently used in property

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[157] 1 RESTATEMENT (FOURTH) OF PROPERTY div. II, ch. 1, intro. note (Council Draft No. 1) (emphasis added).

[158] *See id.* div. II, § 1.1.

[159] For an analysis of how property law does not require the commonly cited tangibility requirement for thinghood, see Marinotti, *supra* note 5, at 681, 735 ("[T]angibility [can be described as] a technology (i.e., a tool) . . . to delineate *in rem* rights by leveraging social and perceptual salience. From this finding, [that tangibility is merely a shortcut to delineate thinghood,] a tech-neutral (i.e., tangibility-neutral) definition of legal thinghood was [finally] derived. Legal thinghood requires that (1) an owner's liberty-right to use and (2) a non-owner's duty not to deliberately or carelessly interfere have boundaries that are easily discernable from shared social customs or intuitions. . . . It is the cultural evolution of shared customs and intuitions that explain when, why, and how property rights are applicable and when, why and how they can be limited. Ultimately, this tech-neutral (tangibility-neutral) definition of legal thinghood can offer doctrinal certainty to courts attempting to define digital property rights, which can otherwise be an amorphous, 'broad concept that includes every intangible benefit and prerogative susceptible of possession or disposition.'" (footnotes omitted) (emphasis added)).

[160] Beth Hill, *Nothing Words—Thing*, ED.'S BLOG (Sept. 8, 2014), https://theeditorsblog.net/2014/09/08/nothing-words-thing/ [https://perma.cc/WM43-GVD6].

[161] Joe Bunting, *7 Words to Avoid in Writing to Be a Better Writer*, WRITE PRAC., https://thewritepractice.com/better-writer-now [https://perma.cc/C9T4-FAMH].

[162] Henry E. Smith, *Economics of Property Law*, *in* 2 THE OXFORD HANDBOOK OF LAW AND ECONOMICS: PRIVATE AND COMMERCIAL LAW § 6.2.1 (Francesco Parisi ed., 2017) (emphasis added) (summarizing the widely adopted perspective, which notably Smith does not share).

courses around the United States.[163] A cursory search for the "law of things" on the legal search engine of your choice seems to validate this perspective; the search term produces few (if any) cases that directly relate to property law.[164] Instead, property is commonly described as a "bundle of rights" and any other conceptualization of property law is viewed as unlawyerly naïveté.[165] Thomas Grey's famous characterization of the legal "specialist" still captures this perspective quite clearly:

> In the English-speaking countries today, the conception of property held by the specialist (the lawyer or economist) is quite different from that held by the ordinary person. Most people, including most specialists in their unprofessional moments, conceive of property as *things* that are *owned* by *persons*. . . . By contrast, the theory of property rights held by the modern specialist tends both to dissolve the notion of ownership and to eliminate any necessary connection between property rights and things. Consider ownership first. The specialist fragments the robust unitary conception of ownership into a more shadowy "bundle of rights."[166]

In spite of this supposed certainty—that thinghood is irrelevant—property law has nonetheless embraced the foundational concept of possession.[167] But this embrace leads property law into a logical bind. Possession requires thinghood; in other words, possession cannot do its job in property doctrines without things.[168] The action of possession requires some *thing* to be possessed, as the following examples illustrate: Amy possessed an *apple*; José possessed *Blackacre*; and Howard and Lisa

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[163] *See* Smith, *supra* note 16, at 1691 ("Property as a law of things, however, suffers from a serious image problem in American legal theory. . . . But if legal realism and its progeny insisted on anything, it was that property is *not* about things. According to this conventional wisdom, property is a bundle of rights and other legal relations availing between persons. Things form the mere backdrop to these social relations, and a largely dispensable one at that.").

[164] *See, e.g.*, United States v. Blarek, 7 F. Supp. 2d 192, 200–01 (E.D.N.Y. 1998) (discussing the "law of things" in relation to Immanuel Kant's vision of criminal punishment (citing IMMANUEL KANT, THE METAPHYSICAL ELEMENTS OF JUSTICE: PART I OF THE METAPHYSICS OF MORALS 100 (John Ladd trans., Bobbs–Merrill Co., 1965) (1797)).

[165] *See* Henry E. Smith, *The Persistence of System in Property Law*, 163 U. PA. L. REV. 2055, 2059 & n.9 (2015) ("The most famous legacy of realist nominalism in property law is the bundle of rights, which eventually was accepted as conventional wisdom.").

[166] Thomas C. Grey, *The Disintegration of Property*, *in* PROPERTY: NOMOS XXII 69, 69 (J. Roland Pennock & John W. Chapman eds., 1980).

[167] *See, e.g.*, Smith, *supra* note 1, at 154 (describing possession as a linchpin of property law); Shartel, *supra* note 1, at 611 (emphasizing the breadth of scholarly work dedicated to defining possession); Bingham, *supra* note 1, at 535 (identifying possession as fundamental to property law).

[168] *See* Smith, *supra* note 11, at 67 ("What counts as a *thing* emerges from a combination of *possession* and accession and makes these aspects of property a basic module, which serves as a default regime that can be displaced by more refined rules of title and governance." (emphasis added)).

possessed the *herd of cattle*.[169] The possessed entity is required even when the possessor is absent from the scene: "The wild fox was possessed" is a grammatical sentence (albeit in the passive voice), but "Pierson possessed" is not. Even grammar, then, highlights the centrality of thinghood to possession.

This logical conflict, though, is mostly benign precisely because thinghood is smuggled into property law through the analysis of possession.[170] In this way, the logical conflict goes largely unnoticed. It is due to thinghood's historical baggage that the concept of possession has been relied upon to avoid "directly specifying *things* in property law."[171]

Therefore, the "two questions, thinghood and possessory claims, are determined at the same time" in judicial analyses.[172] This is not to say that possession and thinghood refer to the same concept. They do not. What this explanation does clarify is that by disentangling thinghood from possession, a more precise definition of possession can be discerned. Thus, by subtracting *thinghood* from the *thinghood-plus-possession* analytical cluster, this Article finally reveals a uniform definition of possession. To do so, *thinghood* is first discussed to delineate its unique role in property law. Only then can possession be conceptualized as distinct from thinghood. The result is a vision of property law in which thinghood and possession are sequential steps in the property process.

A. Understanding Thinghood

What is a thing? Is it really the ambiguous and meaningless term frequently maligned by writing guides?[173] It is not. Instead of being ambiguous and meaningless, thinghood in property law is quite the opposite. By its very definition, thinghood must be definite and meaningful.

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[169] An alternative description of this point is a grammatical one; *to possess* is a transitive verb and requires not only an agent (i.e., the possessor, which is typically described as the grammatical subject) but also a patient (i.e., the possessed entity, which is typically described as the grammatical object). *See generally* Paul J. Hopper & Sandra A. Thompson, *Transitivity in Grammar and Discourse*, 56 LANGUAGE 251, 251 (1980) (discussing the nature of transitivity). Nonetheless, the lexical item of *to possess* refers to a concept that is much broader than possession in property law. One can possess a great sense of humor or a keen eye.

[170] *See* Smith, *supra* note 11, at 86 ("Because possession thus implicitly assumes a notion of the thing, the thing is being smuggled in when what we really need is the thing itself.").

[171] *Id.* at 68 (emphasis added).

[172] *See id.* at 67 ("Sometimes the two questions, thinghood and possessory claims, are determined at the same time, most prominently in first possession.").

[173] Hill, *supra* note 160.

Thinghood is definite because it must provide a definitive boundary between the thing and the rest of the world.[174] Thinghood draws boundaries; it delineates things.[175] Only after line drawing can property law begin to allocate rights and duties.[176] For example, an in rem property right means that all nonowners have a duty "not to deliberately or carelessly interfere."[177] This duty, however, can only be made concrete if the entity with which the nonowner must not interfere is defined and delineated (i.e., only if a clear line can be drawn around the entity protected by the in rem property right). For this reason, assets that are hard to delineate, such as ground water or intellectual property, may fail to be legal things at all.[178]

Importantly, thinghood does not exist in a vacuum or solely in the minds of commentators. Thinghood's delineated boundaries are, and must be, a very real "human experience."[179] Every individual who comes across a thing must be able to discern from the thing itself its delineated boundaries. Thus, thinghood must not only delineate, it must do so meaningfully (i.e., in a way that contains information or meaning). Thinghood must be meaningful because all relevant parties must be able to discern and agree upon the lines drawn around each and every thing.[180]

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[174] Smith, *supra* note 16, at 1693 ("Property organizes this world into lumpy packages of legal relations—legal things—by setting boundaries around useful attributes that tend to be strong complements.").

[175] The proposal explored in this Article builds on the ideas of Smith but argues that it is the concept of thinghood itself that asserts these qualities rather than property law as a whole. For an example of Professor Smith's arguments on this topic, see Henry E. Smith, *Emergent Property*, *in* PHILOSOPHICAL FOUNDATIONS OF PROPERTY LAW 320, 330 (James Penner & Henry E. Smith eds., 2013) ("Property law proceeds by delineating things and using strategies of protection that start with the rough and approximate exclusion strategies and fine tune with governance of use.").

[176] *See* Smith, *supra* note 16, at 1706 ("I know not to enter Blackacre without permission and not to steal a car from a parking lot without needing to know what the land or the car is being used for, how virtuous the owner is, or who (or what) the owner is. . . . The *things* defined by the basic exclusion strategy *mediate the relations* between often anonymous parties." (emphasis added)); *see also* Thomas W. Merrill, *The Property Strategy*, 160 U. PA. L. REV. 2061, 2063 (2012) ("The property strategy applies to 'things'—discrete resources." (citing Smith, *supra* note 16, at 1700–16)).

[177] Simon Douglas & Ben McFarlane, *Defining Property Rights*, *in* PHILOSOPHICAL FOUNDATIONS OF PROPERTY LAW, *supra* note 175, at 219, 220 (limiting the scope of in rem property "to cases where the rest of the world is under a prima facie duty to [property-right holder] not to deliberately or carelessly interfere with a physical thing").

[178] Merrill, *supra* note 176, at 2064 ("There are many values that are not discrete or 'thing-like' enough to qualify as objects of the property strategy."); Henry E. Smith, *Semicommons in Fluid Resources*, 20 MARQ. INTELL. PROP. L. REV. 195, 202 (2016) ("In fluid resources, it is costly to achieve thingness in terms of both delineation and forgone benefit.").

[179] *See supra* notes 55–59 and accompanying text (discussing possession as a human experience).

[180] Henry E. Smith, *Exclusion Versus Governance: Two Strategies for Delineating Property Rights*, 31 J. LEGAL STUD. S453, S455 (2002) (explaining that thinghood's meaningfulness is helpful when "the audience (of duty holders) is large, and [thinghood's] simplicity reduces the processing costs that would be high for such a large and anonymous audience").

For example, if Sam strolls through a parking lot and sees her old car and a brand-new car, regardless of her knowledge of the new car's owner, she knows that she may not enter and drive it.[181] As the following detailed analysis demonstrates, although this occurrence seems mundane, it requires a number of logical assertions in order to reach this quotidian result. In the example, imagine Sam strolling through a parking lot. She sees two cars. One of the cars is her old clunker from the late '80s. Parked next to her car is a brand-new luxury BMW, glimmering in the sunlight. As expected, its vanity plate reads "NICECAR."[182] Sam does not know who owns the BMW or what it is being used for, but Sam does know one thing. She knows that although she may enter and drive her own car, she may not do the same to the BMW. This is perhaps too obvious to state, but Sam's knowledge requires her to acknowledge that (1) her car is a thing, (2) the BMW is another thing, and (3) the two cars are not the same thing. Sam understands that her right to use applies solely to *her thing* (i.e., her car) and does not extend to the *other thing* (i.e., the BMW or anything else).[183] From a theoretical perspective, then, thinghood is what later enables Sam to define "what collection of attributes is treated as a unit [i.e., her car] for describing permitted or forbidden activities."[184] In other words, thinghood allows property law to define what each resource is and is not.[185]

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[181] This example is based on Professor James Penner's famous car-park illustration. PENNER, *supra* note 47, at 75–76 ("As I walk through a car park, my actual, practical duty is only capable of being understood as a duty which applies to the cars there, not to a series of owners. For all I know, all the cars are owned by the same person. The content of my duty not to interfere is not structured in any way by the actual ownership relation of the cars' owners to their specific cars. By the same token, if one of the cars has just been sold, so that there is a new owner, or if one of the cars has been lent to the owner's sister-in-law, again, my duty has not changed one whit. Thus transactions between an owner and a specific other do not change the duties of everyone else not to interfere with the property.").

[182] A vanity plate is "a license plate bearing letters or numbers designated by the owner of the vehicle," usually used as a way to display wealth or attract attention. *Vanity Plate*, MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/vanity%20plate [https://perma.cc/7HVC-AUQM].

[183] The right to use can be more precisely defined as a liberty-right to use. Marinotti, *supra* note 5, at 690–91. This designation explains that

> when an owner claims that he has a 'right to use' his thing, he is not normally asserting that others owe him a legal duty to behave in a certain way; rather, he is asserting that he himself is permitted to behave in a certain way . . . i.e. to use his chattel or his land. . . . When an owner asserts a 'right' in this sense, the better word is 'privilege' or 'liberty' . . . .

Douglas & McFarlane, *supra* note 177, at 226.

[184] Smith, *supra* note 180, at S454.

[185] *See id.* (defining Blackacre as a collection of attributes). This analysis does not necessarily reject the possibility that thinghood may function as a spectrum, rather than a binary system. *See generally* Smith, *supra* note 178, at 197–98 (describing continuous variables of thinghood and how they may relate to the efficiency of exclusion or governance as resource management regimes).

1. Boundaries

In this parking-lot example, it was crucial that Sam was able to discern the boundaries of each car. An important question, then, is how property law ensures that all relevant parties can discern the boundaries of things. This is especially important because—while humans do so automatically and intuitively—detecting the boundaries of vehicles (among other things) can sometimes be far from a trivial pursuit.[186] To answer this question, property theorists have traditionally turned to tangibility.[187] When things are tangible, property law can rely on biologically endowed cognitive effects to ensure reliable line drawing.[188] Infants, for example, easily categorize and assign identities to tangible "objects," which are defined as "bodies that are cohesive, bounded, spatiotemporally continuous, and solid or substantial."[189] The perceptual salience of tangible boundaries is highlighted by the fact that, from an early age, infants conceptualize tangible "solid objects in a way that distinguishes them from non-solid substances."[190] Thus, when thinghood is applied to physical objects, it can rely on "robust and automatic prelegal intuitions" to sufficiently delineate the thing in question.[191]

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[186] Autonomous vehicles, and the algorithms of computer vision that powers them, have demonstrated as much. *See, e.g.*, Huansheng Song, Haoxiang Liang, Huaiyu Li, Zhe Dai & Xu Yun, *Vision-Based Vehicle Detection and Counting System Using Deep Learning in Highway Scenes*, 11 EUR. TRANSP. RSCH. REV. 1, 14 (2019) (identifying size and variance of automobiles as a problem for highway vehicle detection).

[187] *See, e.g.*, Douglas & McFarlane, *supra* note 177, at 239 (noting that intangibles are problematic because there is no "obvious means" to discern their "boundaries"); PENNER, *supra* note 47, at 145–46 (noting that intangibles are problematic because "one cannot obviously possess a chose in action or intangible property like a patent or copyright"); Larissa Katz, *Exclusion and Exclusivity in Property Law*, 58 U. TORONTO L.J. 275, 283 n.30 (2008) (noting that "the more detached property rights are from physical boundaries, the heavier the informational load presented by rights [and] duties"); 1 RESTATEMENT (FOURTH) OF PROPERTY div. I, § 2(d) (AM. L. INST., Council Draft No. 1, 2019) (noting that "[w]here intangibles are concerned, one cannot draw upon the existence of physical separateness or physical boundaries to help identify things").

[188] Marinotti, *supra* note 5, at 695 ("When [a thing] is tangible, determining the collection of attributes that is treated as a unit, and therefore the bounds of my liberty-right, is rather straightforward because it frequently relies heavily on deep-seeded perceptual biases.").

[189] Nancy N. Soja, Susan Carey & Elizabeth S. Spelke, *Ontological Categories Guide Young Children's Inductions of Word Meaning: Object Terms and Substance Terms*, 38 COGNITION 179, 183 (1991).

[190] *Id.* at 183. Research has even shown that children assign meaning and value to tangible objects more quickly than to unbounded substances. The "standard view in developmental psychology is" that "[o]bjects are cognitively simpler than substances, in the sense of being easier for infants to track." Lance J. Rips & Susan J. Hespos, *Divisions of the Physical World: Concepts of Objects and Substances*, 141 PSYCH. BULL. 786, 802 (2015) (citation omitted). In other words, "objects are innately easier to understand than substances." *Id.* at 806. While arguing for a more nuanced understanding of this dichotomy, the authors acknowledge that "[w]here infants run into trouble is in tracking the number of similar piles of substances like sand. Although they can successfully predict whether the experimenter has placed one or two solid objects behind a screen, they seem unable to do so for nonsolid piles." *Id.*

[191] Merrill & Smith, *supra* note 24, at 1894.

2. Salience

Tangibility, however, is not the only means by which thinghood delineates boundaries.[192] The Council Draft of the *Fourth Restatement of Property*, for example, proposed that salient "social practices and social norms and customs" may also play a role in delineating things in property law.[193] An example is the ownership over herds of domesticated animals. If the *herd* is assigned thinghood, a baby calf automatically belongs "to the owner of the mother cow" because the *herd as a whole* is the owned thing rather than individual animals.[194] The boundary of the thing—the herd—is delineated by social practice and economic norms.

This makes sense if the same "automatic prelegal intuitions" elicited by tangible boundaries can be recreated through other salient means.[195] But what exactly is salience, and how can property law rely on it? From a cognitive perspective, "salience" is used to describe "the importance that a stimulus has *acquired* through association with an incentive outcome."[196] For the purposes of property law, salience is a useful cognitive mechanism because it allows the property process to leverage both psychological principles and learned associations, whether social, economic, or cultural.[197]

In this way, according to the Council Draft of the *Restatement*, intangibles "can be things for purposes of property law, provided [as any other legal thing] they are regarded as a separate whole that is only

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[192] Marinotti, *supra* note 5, at 703 ("But tangibility is only one manner of delineating boundaries; it is not the *only* manner.").

[193] 1 RESTATEMENT (FOURTH) OF PROPERTY div. 1, § 2(b) (AM. L. INST., Council Draft No. 1, 2019).

[194] Wyman, *supra* note 147, at 196 (identifying this as the "doctrine of increase"); *see* Smith, *supra* note 11, at 74–75 ("The salience theory also addressed [what a thing is] in terms of notions of the lesser going with the greater . . . . Thus, the Orkneys go with Britain and the calf with the mother cow, and not the other way around.").

[195] Merrill & Smith, *supra* note 24, at 1894.

[196] Thorsten Kahnt & Philippe N. Tobler, *Reward, Value, and Salience*, *in* DECISION NEUROSCIENCE 109, 109 (2017) (emphasis added).

[197] Katrina Wyman summarized Henry Smith's work on salience, writing:

> "salience" is important in determining what counts as a thing. Salience has a psychological dimension. We tend to group "the lesser . . . with the greater," as when we assign the calf to the owner of the mother cow under the doctrine of increase. Salience also has an economic component; we tend to group things together that can be usefully exploited as a package.

Wyman, *supra* note 147, at 196 (first citing SMITH, *supra* note 11, at 66, 72–75, 93; then citing MERRILL & SMITH, *supra* note 2, at 132–33) More broadly, "an agent's own perceptions of salience provide her with a pragmatically defensible criterion for distinguishing between projectible and non-projectible regularities, independently of any prior belief that some regularities are more probable than others." Robert Sugden, *Salience, Inductive Reasoning and the Emergence of Conventions*, 79 J. ECON. BEHAV. & ORG. 35, 46 (2011). Given that "conceptions of salience are shared within the relevant population, each person's projection leads him to behave in a way that confirms other people's projections" such that conventions are formed and perpetuated. *Id.* In this context, the convention perpetuated is the recognition of the boundaries of a *thing*.

contingently related to any particular actor."[198] Further discussion into the definition of thinghood and its reliance on shared social customs and intuitions has been explored elsewhere,[199] but what is crucial for this Article is that thinghood provides boundaries for the very objects of property law.

To set up a system of property rights, first, "we need to know what the resource is," then we determine "what actions are allowed with respect to that resource."[200] Thinghood provides the analytical tools to answer the first of these two questions. To summarize, thinghood analyzes the world and draws boundary lines around each and every thing; once delineated, things become part of the "basic furniture" of property law.[201] In other words, once outlined, things are the basic "elements" or ingredients for the rest of the property process.[202]

B. Defining Possession

Any "legal system must [first] define its elements" and then define "their relations."[203] Property law is no different. It must first define "what counts as a person and what [counts] as a thing."[204] Only then can property law define "whatever connections there might be between the former and the latter."[205]

In the case of *Popov v. Hayashi*, as described above, Barry Bonds's baseball was the thing.[206] Alex Popov and Patrick Hayashi were the persons.[207] The legal question was to determine the relationship between the former and the latter. Another word for the relationship in question is "possession."[208] The purpose of the case, then, was to determine possession. Ultimately, this case took rather interesting turns, leading to the creation of a pre-possessory interest, an equitable division of rights, and a judicially

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[198] 1 RESTATEMENT (FOURTH) OF PROPERTY div. I, § 2(d) (Council Draft No. 1).

[199] *See generally* Merrill, *supra* note 176, at 2077 ("The property strategy was sustained by longstanding social norms and reinforced by self-help, ostracism, and other social sanctions.").

[200] Smith, *supra* note 180, at S454, S456–57 (defining the resource as the "'compositional' dimension of property rights").

[201] Smith, *supra* note 11, at 65 (noting that the "basic furniture" includes the "legal actors, legal things, legal relations, and the like" in a theory of a legal system).

[202] *Id.*

[203] *Id.*

[204] *Id.* at 74.

[205] *Id.*; *see also* MERGES, JUSTIFYING INTELLECTUAL PROPERTY, *supra* note 26, at 5 (stating that property "creates a one-to-one mapping between owners and assets").

[206] No. 400545, 2002 WL 31833731, at *1 (Cal. Super. Ct. Dec. 18, 2002).

[207] *Id.*

[208] Smith, *supra* note 11, at 69 ("The basic relationship between persons and things is *de facto* possession, which is captured in Hume's and Sugden's accounts of how possessory conventions are rooted in salience.").

ordered sale of the baseball.[209] The story and outcome, however, are not the only notable aspects of this case. The judge's analysis of possession itself also offers insights into a common misconception:

> While there is a degree of ambiguity built into the term possession, that ambiguity exists for a purpose. Courts are often called upon to resolve conflicting claims of possession in the context of commercial disputes. A stable economic environment requires rules of conduct which are understandable and consistent with the fundamental customs and practices of the industry they regulate. Without that, rules will be difficult to enforce and economic instability will result. Because each industry has different customs and practices, *a single definition of possession cannot be applied to different industries without creating havoc*.[210]

While Judge McCarthy's description of commercial disputes may be accurate, his conclusion about possession is not. It is true that possession can be conveyed by various distinct customs and practices. For example, "sitting in a seat in a theater, reeling in a fish on a line, or putting up a fence around a field" can all signify that the seat, fish, and field are currently possessed.[211] Three very different actions function to "signify" that someone is "in control of the relevant object."[212] Possession, therefore, must indeed be context-sensitive. But this does not mean that the definition of possession is different in each scenario or that it must list each and every possible instance of possession.

1. Distilling a Single Unified Definition of Possession

The distinction between a single unified definition and multiple alternative definitions may seem frivolous until a parallel is made. Imagine three types of birds: penguins, eagles, and ostriches. Each one is a distinct animal; penguins swim, eagles fly, and ostriches run. Yet, they are all birds. This does not mean that there are three distinct definitions of the word bird or that there are three variations of the definition of bird. Nor does it mean that the definition of bird must contain a list of each and every unique type of bird.[213] Rather, a single definition of the term can and does exist: "any of

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[209] *See supra* notes 132–138 and accompanying text.

[210] *Popov*, 2002 WL 31833731, at *4 (emphasis added).

[211] Merrill, *supra* note 5, at 27.

[212] *Id.* (noting also that these actions convey this information "without any further form of communication").

[213] This would be an "[e]xtensional definition" which merely describes "a concept by enumerating all of its subordinate concepts under one criterion of subdivision." Georg Löckinger, Hendrik J. Kockaert & Gerhard Budin, *Intensional Definitions*, *in* 1 HANDBOOK OF TERMINOLOGY 60, 67 n.4 (Hendrik J. Kockaert & Frieda Steurs eds., 2015) (quoting INT'L STANDARDS ORG., INTERNATIONAL STANDARD 1087–1 pt. 1, § 3.3.3 (2000)).

a class . . . of warm-blooded vertebrates distinguished by having the body more or less completely covered with feathers and the forelimbs modified as wings."[214] Without individually listing penguins, eagles, and ostriches, the definition attempts to provide the necessary and sufficient conditions for something to be a bird.[215] Similarly, multiple situations can be instances of possession without negating the existence of a singular definition.

The court in *Pierson v. Post* acknowledged this very fact. Noting that although "bodily seizure" was the prototypical method of achieving possession of wild animals, "actual corporal possession" was not the only way.[216] The decision listed two additional scenarios that would fulfill the very same concept of possession: (1) continuing to pursue a wild animal after having inflicted a mortal wound[217] and (2) "encompassing and securing such animals with nets and toils."[218] Critically, corporal possession and these two other instances are not completely unrelated.

In all of these situations, the pursuer manifests the same three key pieces of information: (1) "an unequivocal intention of appropriating the animal to his individual use," (2) that the animal has been "deprived" of its "natural liberty," and (3) that the hunter has "certain control" over the animal.[219] Thus, the court in *Pierson* engaged in an attempt to distill the underlying commonalities of possession that could be applied to all three instances. In this way, Judge Thompkins laid the foundation for a singular working definition of possession. The analysis in *Pierson*, then, is contradictory to that of *Popov v. Hayashi*. The former court attempted to distill the unifying themes of possession, while the latter (having expressly rejected the notion of a single definition) merely enumerated the various instances of possession. One attempted to define a bird, while the other merely enumerated penguins, eagles, and ostriches.

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[214] *Bird*, MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/bird [https://perma.cc/Y7RJ-8MRL].

[215] Dictionary definitions frequently attempt to be "intensional definition[s] . . . which describe[] the intension of a concept by stating the generic concept and the delimiting characteristics." Löckinger et al., *supra* note 213, at 64 (citing INT'L STANDARDS ORG., INTERNATIONAL STANDARD 704, § 6.2 (3d ed. 2009)). "[I]ntensional definition[s] should not be written in a way that makes it circular either within itself, in reference to the relevant term or in connection with other intensional definitions of the same language resources." *Id.* at 72.

[216] 3 Cai. 175, 177–78 (N.Y. Sup. Ct. 1805) ("[A]ctual bodily seizure is not indispensable to acquire right to, or possession of, wild beasts . . . .").

[217] *Id.* at 178 ("[T]he mortal wounding of such beasts, by one not abandoning his pursuit, may, with the utmost propriety, be deemed possession of him . . . .").

[218] *Id.* (noting further that this includes "intercepting [animals] in such a manner as to deprive them of their natural liberty, and render escape impossible").

[219] *See id.*

The same tension between unifying possession and fragmenting it is present when zooming away from wild animals. If individuals assert possession by "sitting in a seat in a theater, reeling in a fish on a line, or putting up a fence around a field," are they engaging in three different versions of possession? On the one hand, these are three very different actions. On the other hand, they all function to signify that someone is in control of the relevant object.[220] In all of these scenarios, the relevant communication conveys the same information: that the asset is not currently available for acquisition and use.[221] To further distill these shared features of possession, it is necessary to account for the things possessed.

2. Refining Possession in Light of Thinghood

It is uncontroversial that "[p]ossession and thinghood are closely related."[222] The nature of their relationship, however, is less certain. One possible relationship—which is ultimately adopted in this Article—is that possession builds upon thinghood. Under this conceptualization, they are separate and subsequent steps in the property process.

Another possibility, however, is that thinghood emerges from the act of possession: that which is or can be possessed is a thing.[223] In other words, this alternative theory proposes that the action of possession delineates things. This functional analysis presumes that possession occurs first, at least conceptually. Consequently, thinghood would be a mere intermediary legal fiction that emerges from the process of possession. This latter analysis would define things as merely the collection of attributes which are treated as a unit for describing permitted or forbidden activities. Put differently, things would be whichever resources the law protects. To see the pitfalls of this "instrumental perspective" in action,[224] one needs to look no further than the notable case of *International News Service v. Associated Press* (*INS*).[225]

In this so-called "hot news" case, an American newspaper company was sued by the Associated Press (AP) for obtaining and profiting off AP's news content without permission.[226] The hot news was obtained in three equally

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[220] Merrill, *supra* note 5, at 27–28 (also noting that these actions convey this information "without any further form of communication").

[221] *See id.* ("[T]he relevant communication consists of visual observation[s] of physical cues about objects . . . .").

[222] Smith, *supra* note 11, at 71.

[223] *See* Smith, *supra* note 180, at S454 (discussing the idea that thinghood may be derived from the act of possession). More abstractly, thinghood may be a useful legal fiction that helps define "what collection of attributes is treated as a unit for describing permitted or forbidden activities." *Id.*

[224] Penner, *supra* note 22, at 716.

[225] 248 U.S. 215 (1918).

[226] Shyamkrishna Balganesh, *"Hot News": The Enduring Myth of Property in News*, 111 COLUM. L. REV. 419, 421–24 (2011).

absurd ways: "First, by bribing employees of newspapers . . . ; Second, by inducing [AP] members to violate its by-laws . . . ; and Third, by copying news from [AP] bulletin boards."[227] While acknowledging that news could not be property under common law,[228] the Court nonetheless argued that, in equity, hot news "has all the attributes of property necessary for determining that a misappropriation of it by a competitor is . . . contrary to good conscience."[229] The Court's analysis of (equitable) property rights turned solely on whether the resource in question "could be bought and sold."[230] In essence, the Court created property rights where it saw possession (or at least a version of it):

> Regarding the news, therefore, as but the material out of which both parties are seeking to make profits at the same time and in the same field, we hardly can fail to recognize that for this purpose, and as between them, it must be regarded as quasi property, irrespective of the rights of either as against the public.[231]

While it is true that the Court asserted its jurisdiction as "a court of equity, where the question is one of unfair competition,"[232] its language reeked so strongly of property law that the case has been reinterpreted as such. The Second Circuit, for example, summarized that: "*INS* is *not about ethics*; it is about the *protection of property rights* in time-sensitive information so that the information will be made available to the public by profit seeking entrepreneurs."[233]

Thus, in spite of the *INS* Court's stipulations, "[p]roperty in news" has become "a de facto reality today under the hot news doctrine."[234] This is an unfortunate reality because the Court's language served only to "confuse itself"—and everyone else—"by assuming that the only 'thing' to which the property claim was made was to the 'news' itself."[235] When analyzing this debacle, Professor James Penner pointedly asked:

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[227] *INS*, 248 U.S. at 231.

[228] *Id.* at 255 (Brandeis, J., dissenting) ("That news is not property in the strict sense is illustrated by the case of *Sports and General Press Agency, Ltd., v. 'Our Dogs' Publishing Co., Ltd.*, [1916] 2 K. B. 880 . . . .").

[229] *Id.* at 240 (majority opinion).

[230] J.E. Penner, *The "Bundle of Rights" Picture of Property*, 43 UCLA L. REV. 711, 716 (1996) (citing *INS*, 248 U.S. at 240).

[231] *INS*, 248 U.S. at 236 (emphasis omitted).

[232] *Id.* at 240.

[233] Nat'l Basketball Ass'n v. Motorola, Inc., 105 F.3d 841, 853 (2d Cir. 1997) (emphasis added); *see id.* at 845 ("The Supreme Court held that INS's conduct was a common-law misappropriation of AP's property.").

[234] Balganesh, *supra* note 226, at 425.

[235] Penner, *supra* note 22, at 816.

> Instead of talking about "quasi property" or "exchangeable values," are we not on a better footing if we can say that what the Associated Press was claiming was the right to a market monopoly, akin to the protection generally provided by the monopolies of copyright or patent law [rather than the right to the news itself]?[236]

If the Court had determined the nature of the thing *before* diving into an analysis of possession, it is likely that the Court would have clarified its goal: to protect a "market monopoly" in the vein of intellectual property rights.[237] Instead, the Court reverse engineered the thing, i.e., hot news, from what it saw as possession. As a consequence, the new regime "impose[d] a new set of transaction costs, which . . . altered, at the very least, the structure of the cooperative arrangement among industry participants."[238]

Thus, thinghood should not be defined by the act of possession. Thinghood must draw the bounds of assets, defining their very nature, *before* possessory claims can be conveyed. Otherwise, property law would only lead us "into a realm of interminable abstract confusion."[239]

It is true that "we have to decide exactly what chunk of stuff constitutes the thing over which the person has possession,"[240] but this occurs in two steps. The chunk of stuff must first be defined, and only then can possession be claimed. As Professor Henry Smith explained: "When I take a fish from the ocean I get possession (and ownership) of the fish, not of the entire stock of fish . . . . Why? The simplest answer may be that the practical proto-legal ontology here largely tracks general, everyday ontology. We know what a fish and a chair are."[241] Possessory claims, in these situations, track our practical proto-legal ontology of what stuff is separate from other stuff.[242] In this case, when I get possession of a fish, my possessory claims end at the end of the fish, at the boundaries of the *thing*.[243]

3. Possession as Communication

Once the *thing* to be possessed is defined, the question turns to what acts actually comprise possession. To answer this question, imagine the

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[236] *Id.*

[237] *See id.*

[238] Balganesh, *supra* note 226, at 451.

[239] Penner, *supra* note 22, at 816 (analyzing the consequences of *INS*, 248 U.S. 215 (1918)).

[240] Smith, *supra* note 11, at 71.

[241] *Id.*

[242] *Id.*

[243] *See supra* Section II.A.

wizard Harry Potter and his invisibility cloak.[244] The cloak is a magical blanket "used to render the wearer invisible."[245] Everything covered by the cloak is perfectly hidden from sight. Unfortunately, it does have a physical limitation. Touching the cloak is not enough to benefit from its powers of invisibility. If Harry's foot were sticking out from under the cloth, for example, it would still be visible. Similarly, if Harry held a lantern *through* the cloth (such that his hand were under the cloth but the lantern were outside of it), the lantern would not be covered by the cloak and would also be visible.[246]

With this in mind, imagine Harry completely covered by the invisibility cloak, standing next to Hermione at King's Cross Station. The train station is filled with non-magical individuals. Harry is holding an apple through the cloak such that the apple appears to be floating in the air. Next to him—but not underneath the cloak—is Hermione. She is also holding an apple in her hand. From a property law perspective, is there any difference between what Harry is doing and what Hermione is doing? The answer is yes.

Simply put, what Hermione is doing constitutes possession, but what Harry is doing does not. As explained further below, this is so even though the amount of physical control that either one holds over their respective apple is exactly the same. Thus, possession cannot and should not be defined solely through a metric of control (or even the intent to control).[247] Hermione's behavior *conveys* to others that the apple is not available for their appropriation. Third parties can tell that the apple is not available for their use or consumption. If someone walks up to Hermione and takes the apple

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[244] This example pulls from J.K. Rowling's *Harry Potter* series. Though factual references are used merely for illustrative purposes, additional information about the references can be found online. *Home*, HARRY POTTER WIKI, https://harrypotter.fandom.com/wiki/Main_Page [https://perma.cc/7AFT-9M5F].

[245] *Cloak of Invisibility*, HARRY POTTER WIKI, https://harrypotter.fandom.com/wiki/Cloak_of_Invisibility [https://perma.cc/Z5ZV-7HV7].

[246] *Id.* ("The Cloak also had the limitation of only being able to hide what it was large enough to cover . . . , and if any part of them accidentally slipped past the boundaries of the Cloak, that part risked exposing their presence to anyone nearby.").

[247] This is crucial because alternate definitions of possession have focused solely on control (or intent to control). *See, e.g.*, Chang, *supra* note 21, at 106 ("The concept of possession under my framework is very straightforward—possession is actual control."); Merrill, *supra* note 5, at 26 ("Possession, in contrast, endures only as long as the person in possession maintains the relevant intention to control the resource."); Smith, *supra* note 11, at 73 ("Some would say that control and an intent to control are necessary for possession." (citing VON SAVIGNY, *supra* note 5)).

away from her, she could sue for conversion.[248] The law will protect her even if Hermione had originally stolen the apple from Ron![249]

In Harry's situation, on the other hand, the apple looks as if it is strangely floating in the air. Despite being hidden, Harry does control the apple and intends to keep control of the apple. Harry, however, is *not* conveying that the apple is unavailable. No one can tell that the apple is in Harry's *control* (or indeed controlled by anyone at all). Nor can anyone tell that Harry *intends* to keep control. If someone were brave enough to walk towards the creepy floating apple and take it, should the law allow Harry to sue for conversion? It should not. Doing so would impose onto the public—onto everyone—a duty whose very existence is undetectable.[250] The public would have had no way of knowing that the apple was not available for their appropriation. Therefore, Hermione possesses her apple; Harry does not (despite physically holding it).

In these situations, possession (or the lack thereof) exists only when the availability of an object is clearly discernable. For tangible objects, like the apple, this availability is commonly conveyed through "visual observation of physical cues about objects, mediated by cultural knowledge that is easy for all members of the community to assimilate, typically simply by observing others."[251] Visual observation, however, could not convey the availability of Harry's apple. As Professor Merrill notes, for tangible objects: "Possession is determined by *observing* the relationship between natural persons and tangible objects. In ascertaining whether some object is possessed, we rely on physical cues that tell us whether some person has brought the object under control and intends to maintain control to the exclusion of others."[252]

In Harry's scenario, the (un)availability of the apple is not *observable* by those around him; it is merely a physical phenomenon rather than a human

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[248] In general, "[t]he essence of conversion is not the acquisition of property by the wrongdoer, but a wrongful deprivation of it to the owner, with a temporary deprivation being sufficient." 90 C.J.S. *Trover and Conversion* § 3 (2021); *see also In re* Black Iron, LLC, 596 B.R. 201 (Bankr. D. Utah 2018) ("The fact patterns of cases discussing conversion include cases in which a party physically took chattel away from the [plaintiff]." (first citing Lawrence v. Intermountain, Inc., 243 P.3d 508, 514 (Utah Ct. App. 2010); then citing Firkins v. Ruegner, 213 P.3d 895, 898 (Utah Ct. App. 2009); and then citing Nilson v. JPMorgan Chase Bank, N.A., 690 F. Supp. 2d 1231, 1252 (D. Utah 2009))).

[249] *See supra* note 71 and accompanying text.

[250] The in rem duty imposed by property law is the "prima facie duty" imposed onto all nonowners "not to deliberately or carelessly interfere." Douglas & McFarlane, *supra* note 177, at 220. This duty, however, is only practicable if it is only applied when nonowners are informed of this duty. Nonowners can be informed directly or indirectly if the duty is "discernable from shared social customs or intuitions." Marinotti, *supra* note 5, at 735.

[251] Merrill, *supra* note 5, at 28.

[252] *Id*. at 27 (emphasis added).

experience.[253] Therefore, no possession exists. In Hermione's situation, the apple's status as unavailable is clear. Possession exists. It is important to note, however, that for Hermione the communicated information is nonetheless interwoven with physical control (i.e., holding an apple with one's fingers).[254]

But demonstrating physical control is *not* the only means of conveying the fact that a resource is no longer available. Communities and cultures can communally imbue symbolic acts with the same information.[255] For example, "blazes on trees will signify an intention to remain in control of land in one culture" and "cairns of rock will communicate such an intention in another."[256] In these cases, the land is possessed even if not completely within an individual's physical control. The only requirement among these symbolic acts is that "members of the community easily learn [them] without any need for formal instruction."[257]

This requirement makes sense once possession is viewed as communicative, and especially so when that communication is aimed at an "*audience* of strangers."[258] Possession seeks to inform "the large numbers of people who navigate daily among thousands of objects and who face the problem of differentiating their own objects from the ones that belong to others."[259] It is through the success of this communication that possession can impose upon its audience a duty of noninterference.

It is important to clarify that this communicative requirement does not demand the possessor's presence. Rather, the contextual information of the thing itself is frequently sufficient to convey to third parties its status as (un)available.[260] A clean car parked in the parking lot of Walmart, for example, is possessed even though the possessor is not present. The car by itself carries with it sufficient information such that third parties understand that it is not abandoned and they cannot appropriate the car.

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[253] *See supra* notes 55–56.

[254] It could very well be the case that if Harry and Hermione were at Hogwarts (their wizarding school), the magical students seeing a floating apple might assume that *someone* is using the apple through magic—whether to practice spells or pull pranks—and that the apple is not available to them. In this case, it is possible that both Harry and Hermione would have possessed their apples.

[255] Merrill, *supra* note 5, at 27 ("In terms of signaling an intention to remain in control, symbolic acts enter the picture, and decoding these acts requires some cultural knowledge.").

[256] *Id.* at 27–28.

[257] *Id.* at 28.

[258] *Id.* at 29 (emphasis added).

[259] *Id.*

[260] Smith, *supra* note 11, at 81–82 ("As possession binds more socially distant parties, it becomes more important for them to process the information about this duty *through the thing itself*. Thus, 'in rem' is not just etymologically 'relating to a thing': it is the thing that promotes the de-contextualization needed to extend norms of possession into legal norms.").

In fact, the communicative aspects of possession are made even clearer in the context of abandonment, the so-called "reverse of possession."[261] Abandonment informs the world that an asset is no longer claimed. Like possession, abandonment "draw[s] on conventions fed by salience and practicality" to ensure its success.[262] It does so because abandonment must ensure that the *new* state of in rem rights is again conveyed to third parties. How else would third parties understand the availability of an abandoned object? How else would property law justify "taking those things that are up for grabs and leaving be those that are not"?[263]

Thus, what possession must convey is the continually updated status of in rem claims (i.e., the current alleged availability of resources for third parties). It does not need to convey control or intent. It is the availability of the possessed or abandoned car in the parking lot that is relevant, not the control or intent (per se) of its prior possessor that matters. Communally conveyed control or intent are merely shared and socially intelligible means by which the in rem claims are conveyed to all relevant third parties. Given this realization, the contextual nature of possession can be further clarified.

If possession is defined as control and intent—which is the vision of possession ultimately rejected in this Article—it would be context-sensitive because the communicative acts signaling effective *control* and an *intention* to maintain control differ from one era to the next, and even from one community to another.[264] But if—as I argue in this Article—possession is defined as the conveyance of in rem claims, possession is context-sensitive because the communicative acts that convey in rem claims (i.e., the current alleged availability of a resource for third parties) are themselves subject to varying community norms and customs.

"Claims of possession," therefore, are indeed "established by engaging in . . . observable acts."[265] These acts, however, do not need to convey any physical control or future intent. Rather, the sole requirement is that the

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[261] *Id*. at 93.

[262] *Id*.

[263] Matt Corriel, Comment, *Up for Grabs: A Workable System for the Unilateral Acquisition of Chattels*, 161 U. PA. L. REV. 807, 860 (2013). It may be the case that requirements for communicative acts of taking possession may be higher than for keeping possession (e.g., adverse possession versus first possession).

[264] *See* Merrill, *supra* note 5, at 16 ("[T]he precise actions that signal an intention to establish or remain in possession . . . may differ from one community to another . . . .").

[265] *Id*. at 25.

communicative content of possession contain: (1) the defined *thing* in question and (2) its availability to third parties.[266]

4. Implications for Possession and Efficiency

This conclusion—that possession is communicative and must convey to third parties the availability of a defined thing—may appear to be in conflict with another supposed goal of property law: setting efficient economic incentives.[267] Consider the following analysis of *Haslem v. Lockwood*,[268] as summarized by Judge Richard Posner:

> The plaintiff had raked horse manure dropped on the public streets into heaps that he intended to cart away [and sell] the next day . . . . Before he could haul [the manure] away, the defendant came by and hauled them off in his cart, and the plaintiff sued for the return of the manure. He won. This is the economically correct result.[269]

Judge Posner's focus on achieving the "economically correct result" is further clarified:

> To have required the plaintiff, in order to protect his property right, to go beyond the heaping of the manure—to fence it, or watch continuously over it, or arrange in advance to have a cart in place to remove the manure as soon as it was heaped—would have *increased the cost of the "transaction" by which manure worthless to the original owner became a valuable commodity, without generating offsetting benefits*.[270]

According to this short excerpt, it seems the sole rationale behind the holding was to create an incentive structure to promote the economically correct result. Consequently, this reading of *Haslem* means that the court must have reverse engineered its doctrinal analysis to serve as a tool to incentivize the plaintiff to pick up the "worthless" manure and use it in an

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[266] As the Council Draft of the *Restatement* acknowledged, possession's communicative success can be ensured "in part by the physical relationship between persons and things and in part by social knowledge." 1 RESTATEMENT (FOURTH) OF PROPERTY div. II, ch. 1, intro. note (AM. L. INST., Council Draft No. 1, 2019). But unlike what the Draft promoted, possession does not necessarily convey physical control or "the likely intentions that persons have with respect to things." *Id.*

[267] *See, e.g.*, Lynda L. Butler, *Property's Problem with Extremes*, 55 WAKE FOREST L. REV. 1, 37 (2020) (noting the judiciary's duty and ability to "rewir[e] the incentive structure of property" for environmental purposes); Anthony L.I. Moffa, *Wasting the Planet: What a Storied Doctrine of Property Brings to Bear on Environmental Law and Climate Change*, 27 J. ENV'T L. & LITIG. 459, 496 (2012) ("Damage awards in property law nuisance and waste cases allow a court to set the economically efficient price for continuing the harmful activity.").

[268] 37 Conn. 500 (1871).

[269] Richard A. Posner, *Savigny, Holmes, and the Law and Economics of Possession*, 86 VA. L. REV. 535, 562 (2000).

[270] *Id.* (emphasis added).

economically productive way.[271] The court itself seems to validate this reading by focusing on giving the plaintiff "reasonable time to procure the means to take [the manure] away" rather than focusing on the communicative effects of the piles created through the plaintiff's "labor and expense."[272]

The problem with *this* superficial economic analysis of *Haslem* is that it is self-defeating; it is also not the reading truly proposed by Judge Posner.[273] To explain why this is so, imagine that this superficial analysis of *Haslem* were accepted as law.

In this legal regime, property law would place liability onto "accidental converter[s]" for taking things that were seemingly available, like the horse manure.[274] This holding would be self-defeating because the incentive structure it creates would deter the plaintiff from engaging in the very activity promoted by the court—economic efficiency. In the future, the plaintiff would likely abstain from taking manure to avoid accidentally converting it. How is the finder—or the actual defendant—supposed to know if someone else had "called legal dibs" on the manure? To answer this question, Judge Posner further clarifies his analysis of *Haslem*: "[The plaintiff] took possession of [the manure] by raking it into heaps, and the heaps were adequate *notice to third parties, such as the defendant, that the manure was (no longer) abandoned.*"[275]

Thus, this Article's conclusions are not in contradiction with a more nuanced economic analysis of *Haslem* or the economic efficiency that the decision prioritizes. The analysis of possession as communicative is, in fact, required by it. As Professor Timothy Holbrook noted:

> The case exemplifies the public notice aspect of possession because, by gathering the manure into piles, the plaintiff had "changed its original condition and greatly enhanced its value," *sending a message to third parties* that someone had exercised dominion over the item [i.e., that the item was no longer available]. In other words, *it was clear that someone had taken possession of the manure*, even though that "someone" was absent.[276]

This case and its analyses all conform to and reinforce the thesis of this Article: the information conveyed by possession must contain both (1) the

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[271] *Id.*

[272] *See Haslem*, 37 Conn. at 507.

[273] *See* Posner, *supra* note 269, at 562.

[274] For an illustration of accidental conversion, see Corriel, *supra* note 263, at 814 & n.18, and see also *id.* at 860 (noting also that this is an issue for "unilateral acquirer[s]" such as finders).

[275] Posner, *supra* note 269, at 562 (emphasis added).

[276] Timothy R. Holbrook, *Patent Anticipation and Obviousness as Possession*, 65 EMORY L.J. 987, 999 (2016) (emphasis added) (quoting *Haslem*, 37 Conn. at 506).

defined *thing* in question and (2) its availability to third parties. Here, the thing in question was defined as the piles of manure. The availability of these piles was also conveyed by the fact that third parties had notice "*that the manure was no longer abandoned*,"[277] that it was no longer available for acquisition or utilization.

Although efficiency considerations do form part of our system of property law,[278] efficiency must not come at the cost of predictability and coherence.[279] Rather, efficiency in property law emerges from the successful conveyance of information through possession. This communicative function of possession is highly needed given "the myriad independent objects that populate our world." [280] By viewing possession as communicative, property law can rely on possession to ensure that rights and liabilities are placed only when they are expected. Successful communication is the crucial basis to create the highly stable and predictable foundation of property law.[281]

5. Possession in the Passive Voice

In spite of possession's role in addressing the economic concerns of the *Haslem* court,[282] the fact pattern in the case also raises a possible concern for possession. To reset the scene, imagine the hypothetical: Messy Mason rides a horse and leaves the street covered in manure; Sweeper Sam uses a broom to sweep it up onto the side of the road and then leaves; Grabby Gabe sees the manure piled beside the road and takes it. In its ruling, the court admonished Gabe for taking the piled manure. Judge Posner's analysis of *Haslem* proposes that this ruling is fair (and economically efficient) because Gabe should have known that the manure was no longer abandoned.[283]

The problem, however, is that the concept of possession primarily functions in the passive voice: the manure *was (not) possessed*.[284] In the passive voice, the actor who possesses is frequently "unknown" or even

[277] Posner, *supra* note 269, at 562 (parentheses omitted).

[278] *Id.* (discussing how property rights influence efficiency and transaction costs).

[279] It can be argued that predictability and coherence themselves lead to or are aspects of efficiency, and that is true. This analysis of *Haslem*, however, demonstrates that by prioritizing the creation of economic incentives to solve individual cases, it is possible to accidentally create a superficial system that, overall, suffers because the economic incentives that solve the current case may also lead to much greater cumulative inefficiencies elsewhere (e.g., through the loss of predictability or coherence).

[280] Corriel, *supra* note 263, at 860.

[281] *See* Merrill, *supra* note 29, at 591 (arguing that private law must be "highly stable and predictable" in order to facilitate private order).

[282] Haslem v. Lockwood, 37 Conn. 500, 500–01 (1871).

[283] *See* Posner, *supra* note 269, at 562.

[284] *See, e.g.*, *id.* ("[T]he manure was (no longer) abandoned.").

irrelevant.[285] This feature of the passive voice is key because Gabe was not privy to the identity of the manure's possessor. Sam, the supposed possessor, was not even present. Therefore, the only information Gabe could have been expected to know was whether the manure *was possessed*.

With this in mind, imagine that Sam had just finished reading Marie Kondo's *The Life-Changing Magic of Tidying Up*.[286] Sam was in the mood to clean and decided to sweep the manure simply for the sake of cleanliness. Coming back to profit off the manure was never in Sam's mind. Under these circumstances, would Sam still be able to sue Gabe for conversion? Would Sam still have established possession over the manure in spite of the fact that Sam no longer had control and did not intend to control the manure?

The view of possession promoted in this Article would nonetheless expect Gabe to leave the piles of manure on the road. Sam's (lack of) intent and control are irrelevant. If the piles of manure convey to Gabe (and the general public) that the manure *is possessed*, then for all of Gabe's intents and purposes, it *is possessed*. Gabe will be expected to leave it be regardless of what Sam has done, is doing, or will do. In this scenario, the manure may be left by the road indefinitely if everyone respects the seemingly possessed piles.

In this way, the law's reliance on possession to allocate rights can sometimes lead to inefficiencies. The law expects third parties to refrain from acquiring seemingly possessed assets even when no one else would claim possession.

This inefficiency, however, is expected and ultimately outweighed. It is expected because possession is merely "a *shortcut* over direct delineation of [a] more 'complete' set of legal relations."[287] It relies on context to inform third parties of their duty to "keep off" or "don't touch."[288] When this shortcut fails to efficiently allocate rights, "contracts, regulations, common law doctrine, and norms" can all be used to override possession.[289] Lost property statutes, for example, demonstrate statutory mechanisms to address the inefficiencies of the possession-based allocation of rights under relativity

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[285] Tim Corson & Rebecca Smollett, *Passive Voice: When to Use It and When to Avoid It*, UNIV. OF TORONTO: WRITING ADVICE, https://advice.writing.utoronto.ca/revising/passive-voice/ [https://perma.cc/S868-MRN9] ("In a passive sentence, the person or thing acted on comes first, and the actor is added at the end, introduced with the preposition 'by.' The passive form of the verb is signaled by a form of 'to be' . . . . *In a passive sentence, we often omit the actor completely*." (emphasis added)).

[286] MARIE KONDO, THE LIFE-CHANGING MAGIC OF TIDYING UP 1 (Cathy Hirano, trans., Ten Speed Press, 2014) (advocating that tidiness can "change your life forever").

[287] *See* Smith, *supra* note 16, at 1704 (describing an exclusion theory of property).

[288] *Id.* at 1693.

[289] *Id.* at 1705.

of title.[290] Nonetheless, possession's default role in allocating rights sets the baseline, granting possessors "the space (literally, in the case of land) to pursue projects without having to answer to others, thus generally promoting efficiency and liberty."[291] Ultimately, efficiency must be achieved *through* property law's role "as a tool for planning," not in spite of it.[292]

C. The Property Process in Review

The property process, as defined in this Article, refers to the mechanisms by which a society communally relies on widely shared social customs and shared cognitive biases to allocate resources and to respect expectations of resource management, which individuals may then use to plan their lives. As Professor Michael Crawford has noted, these mechanisms are "spontaneously emergent conventions"; they are "strictly amoral and . . . [their] moral desirability is incidental to [their] ability to spread throughout a population."[293] Ultimately, they form amoral, default "allocative rule[s] in property law."[294]

Specifically, the property process is composed of a series of steps which consecutively add and process information.[295] First, the concept of legal thinghood is used to determine what a "thing" even is. Without first determining what "things" are, property law—and those who rely on it—would not be able to distinguish between what is subject to its doctrines and what is not. Only then does possession kick in. By engaging in an analysis

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[290] *See supra* notes 77–78 and accompanying text.

[291] *See* Smith, *supra* note 16, at 1718 (describing the law of trespass). If society determines that possession's method of allocating rights is not appropriate for a certain type of asset, formal methods of registering titles are available. These methods, however, are "much too costly . . . for everyday purposes of determining who is entitled to what. For those whose interest in valuable things is simply to avoid interfering with the rights of others, ascertaining possession and respecting possession established by others is far cheaper, indeed, it operates virtually automatically without conscious thought." Merrill, *supra* note 5, at 10.

[292] *See* Merrill, *supra* note 281, at 590–91 (emphasizing "private law as a tool for planning").

[293] CRAWFORD, *supra* note 1, at 201.

[294] *Id.*

[295] For those interested, facial-recognition algorithms provide a great analogy through which the property process can be understood. The steps described below track those of the property process. Step one of a facial-recognition algorithm is to "learn[] what a face is" so that it can "detect[]" the very faces it intends to identify. Thorin Klosowski, *Facial Recognition Is Everywhere. Here's What We Can Do About It.*, N.Y. TIMES (July 15, 2020), https://www.nytimes.com/wirecutter/blog/how-facial-recognition-works/ [https://perma.cc/XDX4-3D8W]. Without this critical first step, facial-recognition algorithms would not even be able to distinguish between "a wall outlet and a face." *Id.* Only after faces are detected does the algorithm engage in a second step called "analysis." *Id.* In step two, the algorithms analyze contextual information to "measur[e] the distance between the eyes, the shape of the chin, [and] the distance between the nose and mouth." *Id.* Finally, the algorithm engages in "recognition," whereby the algorithm "attempt[s] to confirm the identity of a person in a photo" by relying on the information processed in steps one and two. *Id.*

of possession, the second step, the legal status of the thing in question is discerned through publicly available contextual information.[296] Not only are the bounds of the thing defined, but its availability must also be conveyed to comply with the second step. Finally in the third step, owners and nonowners can determine their relationship with external assets and engage in their planned behaviors accordingly.[297]

By following this process, property law provides the stable and predictable foundation on which individuals can "shape their affairs, exercise initiative, and plan for the future."[298]

III. DEMATERIALIZING POSSESSION

The understanding of possession proposed in this Article is not merely a theoretical innovation. Its normative appeal is its ability to prescriptively determine whether and when property law is applicable, even in the context of rapidly evolving emerging technologies. It provides a robust theory of possession that is determinative regardless of whether the underlying asset is data, cryptocurrencies, NFTs, or types of digital or other nonphysical assets that have not yet been imagined. This ability should not be taken for granted given that "[p]roperty ownership as we know it is under attack and fading fast" in the digital world.[299] As Professor Katie Szilagyi noted, "The availability of true digital assets [such as bitcoins] has the potential to destabilize our theoretical constructs of what constitutes property, and correspondingly, property law."[300]

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[296] As the Council Draft of the *Restatement* acknowledged, possession's communicative success can be ensured "in part by the physical relationship between persons and things and in part by social knowledge." 1 RESTATEMENT (FOURTH) OF PROPERTY div. II, ch. 1, intro. note (AM. L. INST., Council Draft No. 1 2019). But unlike what the Draft promoted, what is conveyed is not necessarily physical control or "the likely intentions that persons have with respect to things." *Id.*

[297] *See supra* notes 29–32 and accompanying text; *see also* MERGES, JUSTIFYING INTELLECTUAL PROPERTY, *supra* note 26, at 5 ("[The institution of private property] creates a one-to-one mapping between owners and assets. . . . [I]t has little to do with the nature of the assets in question. . . . The logic of decentralized control and coordination—that is, individual ownership—makes just as much sense to me for intangible assets as it does for physical assets and the other objects of traditional property law.").

[298] *See* Merrill, *supra* note 281, at 591 (describing the benefits of private law on private ordering).

[299] JOSHUA A.T. FAIRFIELD, OWNED: PROPERTY, PRIVACY, AND THE NEW DIGITAL SERFDOM 13 (2017) (noting that because of the "intangibility and centralization of the internet and digital and information technologies," property law has been difficult to apply in the digital world).

[300] Katie Szilagyi, *A Bundle of Blockchains? Digitally Disrupting Property Law*, 48 CUMB. L. REV. 9, 10 (2017).

In spite of these challenges, a robust application of property law is still needed.[301] Searching for a resilient theory of property that can accommodate evolving technologies is not only an economic imperative; it is also necessary for human flourishing, as Professor Joshua Fairfield elegantly articulated: "It doesn't matter whether our environments are physical, virtual, or an augmented reality hybrid. As long as individual self-determination remains a human demand, the idea of property will exert a powerful draw on the human imagination."[302] Ultimately, "[t]he extension of property principles to digital assets is . . . inevitable."[303]

A. Intangible Personal Property Rights

To see the property process (and this refined definition of possession) in action in the context of intangibles, we turn to a nearly two-decade-old case from California. In 2003, the Ninth Circuit ruled that domain names are intangible personal property under California law.[304] In so doing, the court relied upon a three-part test to determine whether something can be defined as property.[305] It is this three-part test, the *Kremen* test, that can bridge the property process described in this Article into a robust justiciable doctrine. The *Kremen* test asks three questions in order "to determine whether a property right exists: 'First, there must be an interest capable of precise definition; second, it must be capable of exclusive possession or control; and third, the putative owner must have established a legitimate claim to exclusivity.'"[306]

Domain names, according to the court, fulfilled each of these three criteria. First, domain names are "a well-defined interest" in the same way that "a plot of land" is.[307] Second, ownership of domain names "is exclusive in that the registrant alone makes [the] decision" of "where on the Internet those who invoke that particular [domain] name . . . are sent."[308] Third,

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[301] *See* Richard A. Epstein, *The Roman Law of Cyberconversion*, 2005 MICH. ST. L. REV. 103, 112 ("The list of intangible property in need of protection against misappropriation is too large to countenance this void: customer lists . . . audio broadcasts [and domain names]." (citing Kremen v. Cohen, 337 F.3d 1024, 1032 (9th Cir. 2003))).

[302] FAIRFIELD, *supra* note 299, at 243; *see also* CRAWFORD, *supra* note 1, at 202 ("For so long as our transhuman future remains the subject of science fiction, the concept of possession laid out in this book will continue to remain a fundamental feature of those societies that recognise the right to private property.").

[303] FAIRFIELD, *supra* note 299, at 243.

[304] *Kremen*, 337 F.3d at 1029–30.

[305] *Id.* at 1030.

[306] *Id.* (quoting G.S. Rasmussen & Assocs., Inc. v. Kalitta Flying Serv., Inc., 958 F.2d 896, 903 (9th Cir. 1992)).

[307] *Id.*

[308] *Id.*

"registrants have a legitimate claim to exclusivity" because "[r]egistering a domain name is like staking a claim to a plot of land at the title office. It informs others that the domain name is the registrant's and no one else's."[309]

Unfortunately, the court's focus on *registering* a domain name has elicited property law analyses that focused on the Domain Name System (DNS). For example, Professor William Larsen describes the court's analysis as "view[ing] a domain name as a 'document' or collection of documents in the DNS."[310] And because the DNS is a public ledger, it can signal ownership of a domain to third parties.[311] While this framework may very well have been what the court had in mind, it is not the only way to read the test. This Article's previously articulated definition of possession and its role in the property process provides a clearer, tech-neutral way to read and apply the court's three-part test and its conclusion.[312]

B. The Property Process in the Kremen *Test*

The first prong of *Kremen*'s three-part test refers to "an interest capable of precise definition."[313] By requiring a precise definition of the interest at stake, the test requires that the concept of thinghood be applied such that *things* can be clearly delineated.

The second prong requires that the interest "be capable of exclusive possession or control."[314] While this prong contains the word possession, it actually refines the requirement of legal thinghood. The absence of thinghood as an explicit concept in the court's doctrinal test is not surprising given the history of American property law discussed above. The prong clarifies that if exclusion cannot be established or enforced, the boundaries of an asset are not sufficiently defined to qualify for thinghood.

Finally, the third prong requires that "the putative owner must have established a legitimate claim to exclusivity."[315] Yet it is this requirement that

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309 *Id.*

310 William Larsen, *A* Stern *Look at the Property Status of Top-Level Domains*, 82 U. CHI. L. REV. 1457, 1476 (2015); *see also* Courtney W. Franks, Comment, *Analyzing the Urge to Merge: Conversion of Intangible Property and the Merger Doctrine in the Wake of* Kremen v. Cohen, 42 HOUS. L. REV. 489, 514 (2005) ("The right to own a domain name . . . can be evidenced through the Domain Name System . . . .").

311 Franks, *supra* note 310, at 514.

312 For domain names (the assets at stake in *Kremen*), third parties need not rely on a DNS ledger to determine whether an asset is available for their acquisition. By merely interacting with the asset in question, "whether by typing it into . . . web browsers, by following a hyperlink, or by other means," the audience of strangers will understand whether it is linked to an IP address, whether they have a duty to not interfere, and whether the asset is abandoned. *See Kremen*, 337 F.3d at 1030.

313 *Id.*

314 *Id.*

315 *Id.*

most closely aligns with possession. A legitimate claim to exclusivity is one that coveys to third parties their duty to "keep off" or "don't touch."[316]

In this way, *Kremen*'s three-part test sets the groundwork for possession to lead the way in creating a robust framework of intangible personal property rights. The normative advantage of this framework is that it is not domain-specific. The framework and the property process can be applied across existing types of property rights as well as to rapidly evolving emerging technologies.[317]

In this Article, I have described the theory and purpose of possession, but for the sake of concise legal scholarship, I have not engaged in thorough case studies. Elsewhere, however, scholarship has begun to apply property theory to individual types of intangible assets in an attempt to demonstrate the utility of robust tech-neutral and tangibility-neutral theories of property law.[318] It is my hope that, with theories proposed in this Article, property scholars can look onto the landscape of intangible assets with curiosity and the ability to engage in a serious analysis without fearing the end of property ownership.

CONCLUSION

Applying the concept of possession in the digital age is controversial and has historically raised more questions than answers for contemporary property scholars.[319] By dissecting the larger property process in which possession finds its role, however, this Article provides a unique and singular definition for this enigmatic concept.[320]

Possession is neither control nor intent to control, nor is it a physical fact distilled into the legal regime. These alternative definitions conflate possession's purpose with that of thinghood. Rather, possession's very essence is the dissemination of information. Specifically, its definition is the conveyance of in rem claims regardless of medium (whether physical, or digital, or otherwise). Once in rem claims are successfully conveyed through

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316 Smith, *supra* note 16, at 1693.

317 *See generally* Marinotti, *supra* note 5, at 711–12 (discussing Bitcoin, CryptoKitties, and other digital assets).

318 *See, e.g.*, *id.* (applying a tech-neutral theory of thinghood in three case studies: Bitcoin, NFTs such as CryptoKitties, and video game or metaverse assets).

319 Shartel, *supra* note 1, at 611 (noting the "mystery and confusion" surrounding possession); Bingham, *supra* note 1, at 535 (comparing possession to a "marvelous paradox").

320 Accurately defining property's underlying concepts is crucial to understand the larger architecture of property. Henry E. Smith, *On the Economy of Concepts in Property*, 160 U. PA. L. REV. 2097, 2128 (2012) ("The cognitive theory of property identifies the importance of concepts in reducing information costs and building the overall architecture of property.").

possession, the law can justly place onto third parties a duty to respect possession's manifested allocation of rights.

Possession, thus, builds upon the concept of thinghood and provides a "first cut" at allocating rights to *things* against the world.[321] In this way, the law's reliance on possession's communicative function ensures that its enforcement of rights and duties is expected, creating a stable foundation to allocate ownership, facilitate social interaction, and ultimately function as the foundation for the rest of private law.[322]

Notably, this framework is not merely theoretical. Besides aiming to achieve descriptive accuracy and doctrinal coherence, the property process framework described in this Article also provides a solution to one of society's growing concerns: the role of property law in the realm of intangibles.[323] The analysis of possession as communicative may provide an analytical mechanism to determine whether and when property protections are warranted for intangibles, whether data, domain names, cryptocurrencies, or NFTs.[324]

Furthermore, the framework highlights the critical need to account for the "bottom up" behavior of "social actors" when designing any resource-governance regime, digital or otherwise.[325] Functional analyses based solely on public policy are "quick to suggest alternatives" or changes to property law, aiming "to improve efficiency."[326] But these frequently fail to account for the role of information in the property ecosystem. Possession plays a central role in disseminating the status of in rem rights (and duties) so that individual actors may plan accordingly. Crucially, possession conveys information without resorting to information-intensive ownership strategies such as title ledgers or DNS.

Ultimately, thinghood and possession work in tandem through the property process to create a predictable, coherent, and practicable method to allocate and convey in rem rights. By ensuring that all rights are distinct and discernable, possession provides the stable foundation upon which

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[321] *See* Smith, *supra* note 11, at 65.

[322] *See supra* notes 30–32 and accompanying text.

[323] FAIRFIELD, *supra* note 299, at 13 (noting that "[p]roperty ownership as we know it is under attack and fading fast" in the digital world and that property law, given the "intangibility and centralization of the internet and digital and information technologies," has been difficult to apply to the digital world).

[324] Elsewhere, I compare Bitcoin to NFTs, demonstrating that some, though not all, digital assets will be able to fulfill thinghood and possession requirements of property law. *See* Marinotti, *supra* note 5, at 711–38 (concluding that although Bitcoin fulfill the requisites of legal thinghood, data and CryptoKitties, a type of NFT, do not).

[325] Merrill, *supra* note 281, at 590–91.

[326] *See id.* at 590 (cautioning against the unquestioned adoption and implementation of "the law and economics tradition" in analyses of private law).

individuals may "shape their affairs, exercise initiative, and plan for the future."[327]

[327] *See id.* at 591.