Special Edition, Summer 2025

Traditional Knowledge and the Limits of Property

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Indigenous and traditional groups have generated a great variety of creative and inventive products and processes, collectively known as Traditional Knowledge ("TK"). Modern travel and communication have opened TK to outsiders, but some outsiders may copy or otherwise appropriate TK from the creating communities without consent or compensation. These appropriations lead to several typical grievances analogous to claims of theft, unfair competition, and violation of privacy. This Article explores whether property law and especially intellectual property law might remedy such grievances and protect TK for the communities that create it. Despite its promise, property law has at least two inherent constraints that affect TK protection: A usable claim to property entails (1) knowing what the property is and (2) knowing who owns it. TK presents special challenges to finding clear answers to those demands, given the evolution of TK over time and the contributions of many unknown creators. Hence, intellectual property law has historically excluded TK, leaving TK open to exploitation by all takers. Adjustments to intellectual property law may be feasible to deal with some but probably not all of the grievances of traditional peoples about the unjust appropriation of TK.

Table of Contents

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Introduction

Traditional knowledge ("TK") includes a voluminous array of creative productions, processes, and learning—medicines, songs, stories, inventions, dances, productive methods, foodstuffs, paintings, sculptures, tools, and instruments, among others—created by Indigenous or longstanding local communities.[1] Thanks to modern means of travel and communication, persons from outside such traditional communities have enjoyed an ever-wider knowledge of their accomplishments, whetting a laudable curiosity about traditional cultures and an appreciation of their creativity. But a more questionable side effect is that outsiders have also copied aspects of TK out of context or have otherwise used TK for their own purposes without compensation to the original communities or even recognition of their contributions.

In modern Western law,[2] the kinds of creative works and practical know-how apparent in TK might well be protected by the various rubrics of intellectual property ("IP")—roughly speaking, through copyright protections for creative productions, patent protections for inventions or technical processes, and trademark and trade secret laws to protect against unfair business practices.[3] But to date, IP law has provided scant relief against appropriations of TK, deeming the creations and innovations from TK to be part of "the common heritage of mankind"—that is, part of an intellectual commons, available to all for the taking.[4] Nevertheless, this designation has drawn an increasing chorus of criticism.[5] Members of traditional communities, as well as human rights organizations and other sympathizers, maintain that the originating groups deserve to have acknowledgment or compensation when TK is appropriated by

1. For brevity, I use the term "TK" to include both practical and artistic or aesthetic matters, but the latter are frequently described as "Traditional Cultural Expressions" or TCE. *See* Justin Hughes, *Traditional Knowledge, Cultural Expression and the Siren's Call of Property*, 49 San Diego L. Rev. 1215, 1216–18 (2012) (discussing inclusion and naming issues, and dividing the field into traditional knowledge and traditional cultural expression). Like Hughes, *id.* at 1225, I use the term "traditional community" to designate Indigenous or local groups.

2. *Id.* at 1225, 1234, 1240 (using the common term "Western" to describe researchers from Europe and America, but also to denote legal systems and cultural practices initially developed in early-industrializing European and American countries but now used internationally, or simply as synonymous with "modern"). I follow this common terminology for lack of better language.

3. Robert P. Merges et al., Intellectual Property in the New Technological Age 24–30 (4th ed. 2006).

4. J. Janewa Osei-Tutu, *What Do Traditional Knowledge and Traditional Cultural Expressions Have to Do with Intellectual Property Rights?* 9 Landslide 20, 21–23 (2017); Cynthia M. Ho, *Biopiracy and Beyond: A Consideration of Cultural Conflicts with Global Patent Policies*, 39 U. Mich. J. L. Ref. 433, 473 (2006).

5. Michael Brown, Who Owns Native Culture ix (2008); Deepa Varadarajan, *A Trade Secret Approach to Protecting Traditional Knowledge*, 36 Yale J. Int'l L. 371, 379–82 (2011).

outsiders, or indeed the right to deny permission to copy or use TK altogether, and they call on reform of IP law as a means to that end.[6]

Can the introduction of property—and especially IP—protect these creations for the benefit of Indigenous and other traditional peoples themselves? That is the question that this Article addresses. Answers, of course, depend on the characteristics of property regimes generally and IP in particular—both their possibilities and their inherent limitations.

In this Article, I will begin by briefly describing three scenarios, each illustrating a type of issue that traditional groups have faced in establishing or maintaining control over the group's past and present creative accomplishments. I will then ask a large question: whether property institutions can help. I will not say a great deal about whether property (or anything else) *should* help, but I will instead focus on the question of whether property *can* help, supposing that help is warranted. I will conclude that there is a mismatch between property institutions and TK, less serious in some cases but more serious in others, and I will end with some thoughts about possible remedies for different kinds of issues, though none will be entirely satisfactory.

I. Traditional Knowledge Scenarios and Their Discontents

Here are some hypothetical examples of problems that might arise as outsiders come into contact with TK that they find useful.

First, a traditional community has long grown and processed a plant that can reduce blood pressure when eaten, with the processing involving pounding, heating, and seasoning. A few years ago, an agent of a European, Asian, or U.S. commercial pharmacology firm heard about the plant. The agent investigated, learned from members of the community the method for processing the plant, and then reported back to her firm. The firm's laboratory staff then established the plant's chemical composition, refined the processing method, synthesized the resulting drug, patented it, and is currently making a considerable profit from its sales.[7] Meanwhile, the community that supplied the knowledge of this plant's properties and processing gets nothing. The community's complaint is a variant of the tort of conversion: "We created this cure, and you stole it."

Second, upping the ante, the commercial pharmacology firm is now selling its blood pressure cure globally, including in the area from which the TK

6. Varadarajan, *supra* note 5, at 380–82.

7. William Fisher describes a real-world example of this sequence of events. William Fisher, *The Puzzle of Traditional Knowledge*, 67 Duke L.J. 1511, 1514–20 (2018) (describing Indigenous malaria treatment whose active ingredient was found and patented by a French research institute).

arose, and the community complains that no one comes anymore for their plant-based remedy. Here, the complaint is more akin to unfair competition: "You got the idea from us, and now you are undercutting us."[8]

Third, suppose that the plant, once processed, is a part of a ritual practice in the traditional community and is never traded or given away to outsiders, even though the pharmacology firm's agent managed to wheedle the information out of one community member. The firm, simply by patenting the plant product's chemical composition and refinement process, has revealed it to the world. Even a sympathetic researcher might reveal such secrets, at no profit to himself, as in the real-world case of one who photographed and then published pictures of Hopi ritual dances in the early 20th century.[9] But by revealing the secret to the world, the firm (or the anthropologist) undermines the community's ritual practice. Worse yet, the community thereafter is inundated with hocus-pocus New Age imitators.[10] Now the complaint is somewhat similar to invasion of privacy: "You are invading our world!"

Obviously, the TK product does not have to be a plant or a pharmaceutical product; it could be a ritual dance or some other creative matter, such as the "Dreamtime" motifs in Australian Aboriginal paintings—artworks that relate mythological symbols in mysteriously evocative styles. Such an episode could play out as some journalist discovers these artworks and writes articles about them, whereupon others imitate the artworks in various depictions, including turning them into t-shirts sold over the internet to pimply white teenagers who wear them to heavy metal concerts.[11] Without some remedy, the Aboriginal creators get nothing, and their important symbols are cheapened.

And so, these are three possible scenarios of encounters between TK and modernist commercial enterprises.[12] All raise the question of whether TK deserves protection against use by outsiders. There are certainly reasons to think so,[13] but I will not go into those here. Let us simply suppose that there are indeed good reasons. Instead, this Article focuses next on what property

8. Christine Haight Farley, *Protecting Folklore of Indigenous People: Is Intellectual Property the Answer?*, 30 Conn. L. Rev. 1, 14 (1997).

9. Brown, *supra* note 5, at 11–15.

10. *Id.* at 21–24.

11. *See* Farley, *supra* note 8, at 8 n.24 (noting widespread copying and sale of products based on Dreamtime art).

12. For the term "modernist," see James C. Scott, Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed 2–8 (1998) (describing state actors' "high modernist" drive to make their domains "legible" through rational, standardized, and simplified categories and observing that capitalism shares these "high modernist" traits). While I find Scott's terminology and analysis very illuminating, I do not entirely share his critical view of standardization.

13. *See, e.g.*, Ruth L. Okediji, *Is the Public Domain Just? Biblical Stewardship and Legal Protection for Traditional Knowledge Assets*, 45 Colum. J.L. & Arts 461, 464–68 (2022) (giving reasons for protecting traditional knowledge through the concept of Biblical stewardship).

law might do to protect TK, whether in the form of practical products, artistic productions, or other learning and practices of traditional communities.

I do not want to answer that question with a flat "nothing," but there are definitely obstacles that stem from the characteristics of property law, including IP law. With that, I turn to property law in general.

II. Property's Possibilities

Particularly in the more economically developed parts of the world, much has been claimed for the institution of property. Here, I will mention just three particularly well-known claims about property. First, property is said to permit self-expression and the articulation of identity, a view that gained many adherents after Margaret Radin's 1982 article, *Property and Personhood*.[14] Second, property is said to promote individual autonomy and independence; adherents of this general view range from liberal thinkers like Charles Reich[15] and Hanoch Dagan[16] to libertarians like Robert Nozick.[17] Finally, property is often regarded as rewarding careful and productive management of resources.[18] This third claim is quite ancient,[19] but ever since the Enlightenment, theorists like Jeremy Bentham have elaborated on it, and it has become the most prevalent modern argument for property and particularly IP.[20] That is, the claim is that property enhances general wealth by encouraging labor, planning, and prudent use of resources as well as innovation and entrepreneurship.[21] One should add that together with incentivizing labor, property makes possible voluntary exchange—that is to say, trade—simply by identifying the trading partners. All this is well-known,[22] but I want to emphasize it because trade and commerce dovetail with property's incentives to productive labor. Trade and

14. *See generally* Margaret Jane Radin, *Property and Personhood,* 34 Stan. L. Rev. 957 (1982). For the influence of Radin's "Personhood" article, see, e.g., Gregory S. Alexander & Eduard M. Peñalver, An Introduction to Property Theory 66 (2012) (describing Radin's personhood theory of property as "the most influential contemporary property theory drawing inspiration from Hegel"); *see also* Hanoch Dagan, A Liberal Theory of Property 50 (2021) (describing Radin's personhood theory).

15. *See generally* Charles A. Reich, *The New Property*, 73 Yale L.J. 733 (1964).

16. *See generally* Dagan, *supra* note 14.

17. *See* Robert Nozick, Anarchy, State, and Utopia 30–33, 160, 172 (1974).

18. Jeremy Bentham, *Principles of the Civil Code*, *in* Theory of Legislation 111–14 (C.K. Ogden ed., 1931).

19. For example, Aristotle observed that individual property encourages effort on one's own things. *See* Aristotle, Politics bk. II, ch. 5, ¶ 6.

20. *See, e.g.*, Okediji, *supra* note 13, at 466 (citing intellectual property's "utilitarian rationale" as an obstacle to negotiations over TK).

21. Bentham, *supra* note 18, at 112–14; Richard Posner, Economic Analysis of Law 40 (9th ed. 2014).

22. Posner, *supra* note 21, at 40.

commerce make the products of labor even more valuable because commerce opens access to a greater sphere of people who value those products.[23]

Parenthetically, this modernist, economically oriented version of property certainly has many critics, most notably including Jean-Jacques Rousseau and Karl Marx, who saw property as a high road to hierarchical domination.[24] Utopian communities have often severely constrained property or banned it altogether, on the view that property encourages attention to self-interest that is incompatible with community.[25] Nevertheless, property has some weighty moral claims of its own. Property and trade provide practical lessons in the respect for the rights of others and practice in making voluntary exchanges as opposed to taking things by force and intimidation. Milton Friedman, contrary to Marx, argued that property and commerce are associated with liberal democracy because property diffuses power,[26] but Friedman simply echoes a view that goes back to the eighteenth century.[27]

Summing up, at least three major claims are made for the protection of property—personhood or identity, autonomy, and productivity. These same claims have been made for IP protection, and all three are at play in hopes of protecting TK from outsider appropriation. Why, then, is the attribute of property, including IP, so elusive with respect to TK?

III. Property's Limitations

Property operates within two central requirements: To make property useful, one must know *what it is* and *who owns it*. These requirements need not be detailed or even immediately obvious; on the contrary, it is a virtue of property that it reduces cognitive demands in everyday affairs. One can recognize a farm or a car as someone else's property without knowing much about the details. In this way, the *what* of property need only be of the rough boundaries of the thing and the *who* may well be presently unknown but, like the *what,*

23. Carol M. Rose, Property Law, Handbook of New Institutional Economics, ch. 13, at 1, 9 (forthcoming in 2025).

24. Jean-Jacques Rousseau, *Discourse on the Origin and the Foundations of Inequality Among Men*, *in* The Social Contract and Discourses 234–35 (trans. G. D. H. Cole, 1950 [1754]); Karl Marx & Friedrich Engels, The German Ideology 52 (C.J. Arthur ed., 1970).

25. *See, e.g.*, Norman Cohn, The Pursuit of the Millennium: Revolutionary Millenarians and Mystical Anarchists of the Middle Ages 265–66 (rev. ed. 1970); Carol M. Rose, *The Moral Subject of Property*, 48 Wm. & Mary L. Rev. 1897, 1897–99 (2007).

26. *See* Milton Friedman, Capitalism and Freedom 7–32 (1962).

27. *See* Joyce Appleby, Capitalism and a New Social Order: The Republican Vision of the 1790s 28–34 (1984) (describing the discovery of a generalized "market" undercutting need for state ordering).

discoverable for anyone with an interest.[28] But even these minimal requirements present difficulties for TK.

A. The First Requirement of Property: What Is It?

When one considers the many things that might be considered property, landed property is among the easiest to recognize. A fence, a wall, or a post is enough to signal that someone claims it. There are many ways of identifying specific landed property, even in informal communities. Cultivation or marks on trees signal ownership, or owners and neighbors may periodically walk the bounds. More formally, governmental organizations require surveys and keep detailed records. These records are especially important if property claims fail to give off sensory signals or give only ambiguous physical signals, for example, passive uses like wildland conservation or neighborhood covenants to limit building heights.

Intellectual matters, too, lack the physical characteristics that can act as relatively simple signals of ownership claims,[29] which may be one reason IP was a latecomer to property law. While IP law mirrors more conventional property in using signaling methods to establish property claims, IP signals entail greater specificity in establishing the content that each claim encompasses. In the United States, copyright requires "fixation"—writing down the story, recording the song—that is, establishing the content of the property claim through precise legible or sensory signals.[30] Patents require formal records embodied in a detailed written description of each invention.[31] Similarly, the surest form of a trademark requires registration, giving distinctive details to assure that the mark will not confuse customers about the source of the goods.[32] All these delineations attempt to specify the content and boundaries of the IP claims precisely. This is not to say there are no ambiguities at the margins; there are many, as in the geographic reach of unregistered trademarks[33] or the casuistry of "fair use" or "transformative works" in copyright.[34] But those ambiguities diminish the property-like characteristics of the claimed thing and hence the protection that property offers.

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28. Henry E. Smith, *Property as the Law of Things*, 125 Harv. L. Rev. 1691, 1701–03 (2012).

29. *See* Susan Scafidi, *Intellectual Property and Cultural Products*, B.U. L. Rev. 793, 800–01 (2001) (discussing greater ability to observe tangible objects than intellectual matters as property).

30. Arthur R. Miller & Michael H. Dais, Intellectual Property: Patents, Trademarks, and Copyright in a Nutshell 326–28 (5th ed. 2012).

31. *Id.* at 11.

32. *Id.* at 176.

33. *Id.* at 172.

34. *See generally* SunTrust Bank v. Houghton Mifflin Co., 268 F.3d 1257 (11th Cir. 2001) (discussing fair use and parody in the context of the novel The Wind Done Gone).

Thus, even formal IP claims may present challenges to specifying precisely what the property is, but the ambiguities of TK are generally even more challenging. What, for example, is included in a Diné weaving design?[35] Different weavers do things slightly differently. But if the identification as Diné is linked to the weavings of a number of different Diné people all weaving in a recognizable style, that fact suggests that the Diné style underlies any individual weaving. But supposing that IP could protect style,[36] what is this style? It is certainly not impossible to identify certain components, but those still leave considerable uncertainty, particularly when one takes into account that TK evolves over time and that quite aside from individual variations, earlier patterns may differ from current ones.

There are similar issues with other kinds of TK—traditional stories, folktales, songs, types of carvings, or ways of planting, cooking, or healing. Any instance of TK is likely to have had multiple versions over time, leaving the contours hazy and making it difficult to say what is and what is not an infringement. To be sure, conventional IP has "whatness" problems, too. Did or did not Robin Thicke and Pharrell Williams' "Blurred Lines" copy Marvin Gaye's "Got To Give It Up?"[37] Or is Cole Porter's "Begin the Beguine" a copy of Arnstein's "The Song of David?"[38] But in those examples, one specific version could be compared against another. The multiple and shifting versions of TK amplify the problem of saying what any example of TK is, even as a kind of style. It is telling that style itself, at least as represented by fashion, cannot be copyrighted in conventional IP due to its amorphous nature and the potential for protections to sweep too broadly.[39]

At some point, someone will undoubtedly attempt to use the new technology of artificial intelligence ("AI") to specify the characteristics of Indigenous

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35. Diné is the name used by a tribal group formerly known as Navajo.

36. *See* C. Scott Hemphill & Jeannie Suk, *The Fashion Originators' Guild of America: Self-Help at the Edge of IP and Antitrust*, *in* Intellectual Property at the Edge: The Contested Contours of IP 159, 159–60 (Rochelle Cooper Dreyfuss & Jane C. Ginsburg eds., 2014) (U.S. law does not protect fashion styles); *cf.* Annette Kur, *Protection for Fashion: The European Experience*, *in* Intellectual Property at the Edge: The Contested Contours of IP 180, 189–91 (Rochelle Cooper Dreyfuss & Jane C. Ginsburg eds., 2014) (describing somewhat greater but incomplete fashion design protection in Europe).

37. *See, e.g.*, Jan Caramanica, *It's Got a Great Beat, and You Can File a Lawsuit to It*, N.Y. Times (Jan. 6, 2020), https://www.nytimes.com/2020/01/06/arts/music/pop-music-songs-lawsuits.html [https://perma.cc/H29D-R4H9]; Ben Sisario, *The 'Blurred Lines Lawsuit Scared Songwriters. But Its Time May Be Up,* N.Y. Times (Mar. 24, 2020), https://www.nytimes.com/2020/03/24/arts/music/blurred-lines-led-zeppelin-copyright.html [https://perma.cc/VN4F-DX9B] (describing later cases favorable to purported infringers).

38. Arnstein v. Porter, 154 F.2d 464, 468–70 (2d Cir. 1946). The song names are given in the district court opinion in Arnstein v. Porter, 1945 WL 6897, at 1 ¶ 4 (S.D.N.Y. 1945).

39. *See* Hemphill & Suk, *supra* note 36, at 159 (no copyright protection of fashion); Kur, *supra* note 36, at 181 (same).

modes of art, music, medicine, and other TK matters. But if so, the answers may well be rather generic[40]—or if not generic, then probably controversial, given the dependence of AI's outputs on its training materials and the possibilities for overreach in those materials.

But let us suppose for a moment that it is possible to define a TK style with some specificity and protect it with a new type of IP. One might ask whether it is desirable to do so for the people who today continue the traditions created by their predecessors. Evolution over time is an important aspect of TK: Narrators may alter the stories, artists may invent variations on handed-down designs, and inventors may tweak the old ways in a manner that defies any sharply drawn delineations of a TK style. Specific definitions of TK reduce a group's ability to protect the changing character of tradition-based creative productions on the one hand or to include amorphous kinds of TK on the other. Yet TK that protects too broadly creates another problem. William Fisher points to the examples of evolving, hybridized versions of Kente cloth and tango dancing to argue that groups beyond the originators also make valuable contributions; overly broad TK protection could reduce the possibilities for such innovative hybridized evolutions.[41]

Parenthetically, this issue of alteration and change appears to me to show a difference between property in creative or inventive matters on the one hand (whether TK or not) and more physical property subjects on the other hand, especially land. Ordinarily, formal IP requires fairly specific details about the content of the things patented, copyrighted, or trademarked; otherwise, IP products could not easily be bought, sold, or licensed because market participants would not know what they were buying, selling, or licensing.[42] But that specificity requirement renders IP's protection somewhat inflexible. Batman's character may change over time and retain trademark protection, but the character must remain recognizable as Batman and not, say, Spider-Man.

For the Batman character to be considered as IP, the law requires some specificity with respect to features—clothing, color combinations, mask, types of actions, and so on. By contrast, property in land can be open to commerce with no more specification than the boundaries. So long as the owner obeys the constraints of nuisance and land use law, she can make any alterations she wishes within those boundaries. She can tear down the house, build a new one, start a

40. The author fed some questions to ChatGPT about identifying Navajo (Diné) weavings, but aside from information about natural materials and upright loom weaving, the answers were not specific, and they directed the seeker to cultural research and consultation with the Navajo nation.

41. Fisher, *supra* note 7, at 1559–64; *see also* BROWN, *supra* note 5, at 220–22 (lauding "hybridity" of Indigenous culture and giving examples, including Indigenous peoples' versions of polka and reggae).

42. *See supra* text at notes 29–34.

vegetable garden, plant for wildlife habitat, and on and on; or if she prefers, she can sell to someone else who has the same liberty to do something altogether different with the land. When landed property ownership does add specific constraints on the content within the bounds, most notoriously the private land use controls in planned subdivisions, those constraints may freeze alterations by current owners, limiting the bidding pool of new purchasers and, in the worst case, leading to a kind of land use sclerosis.[43] Thus, while land does need minimal boundary specification to be available to commerce and to partake in the dynamism that commerce brings, greater specificity as to content narrows the options for dynamic changes in land use. By comparison, intellectual matters cannot enjoy wide markets at all without relatively detailed content specification, but that essential specificity comes with a price tag of limiting alteration, except insofar as substantial alterations themselves are specified, as in added improvement patents.[44] No wonder, then, that major IP categories have time limits on protection—and no wonder that many think that existing IP duration is too long.[45]

And no wonder, too, in the case of TK, that some are concerned that IP protection could undermine the ever-emergent character of TK creativity.[46] This would be especially problematic if IP protection for TK were to be permanent, rather than time-limited as is the case for ordinary IP. There is certainly a case for some kind of permanent protection of TK, given that the traditional groups from which TK originated have long histories and, one hopes, long futures. But protection via property is in tension with TK's evolving creativity because property in intellectual matters requires specification.

Summing up, then, to say that something is property entails being able to say what it is. But even more than the intellectual productions that receive IP protection today, it can be hard to answer the question of what identifies something as TK. Beyond that, even supposing that some current intellectual matters can be identified specifically as TK, that very specificity could undermine the evolving character that helps to make TK so distinctively attractive. TK, then, is in serious tension with this important limitation on property: One must be able to know what it is.

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43. Robert C. Ellickson, America's Frozen Neighborhoods 154–57 (2022).

44. The proliferation of intellectual property claims has raised concerns about "anticommons"—claims so numerous and diverse on an asset that it cannot be assembled into a whole. *See* Michael Heller & Rebecca Eisenberg, *Can Patents Deter Innovation? The Anticommons in Biomedical Research*, 280 Sci. 698, 698–71 (1998); *cf.* Justin Biddle, *Tragedy of the Anticommons? Intellectual Property and the Sharing of Scientific Information*, 79 Phil. Sci. 821, 830–31 (2012) (citing studies for and against the thesis, concluding that the matter is still undecided).

45. *See, e.g.*, Eldred v. Ashcroft, 537 U.S. 186, 242–43, 248–57 (2003) (Breyer, J., dissenting) (arguing against copyright time extension); Lawrence Lessig, The Future of Ideas: The Fate of the Commons in a Connected World 107, 251–52 (2001) (same).

46. *See* Fisher, *supra* note 7, at 1559–64 (noting creativity losses from lack of openness).

B. The Second Requirement of Property: Who Owns It?

In classical economic thinking, property is often praised for its ability to encourage people to invest labor in resources.[47] But property also has two other very important economic functions: first, to deter conflict over resources and, second, to permit those resources to be bought and sold in commerce. Property serves these ends by specifying who is entitled to claim any particular thing. Thus, for any given thing to function as property, it must be possible to answer not only the question of what it is but also a second question: Who owns it?

Like the what-it-is requirement of property, this owner-identifying requirement comes into conflict with TK. Labor, or especially creation, is often considered a basis for property claims. In TK, however, there are often many contributors, both present and historical, and indeed, the original creator(s) may well be lost in the past, like the originators of the stories recounted in Grimms' Fairy Tales.[48] Terraced agricultural plots in pre-Columbian Peru owed their productivity to the intense communal planning and labor that went into the common irrigation systems.[49] Who could claim to own that know-how? Agricultural land in medieval and early modern England was at times worked by individuals and at times turned to common grazing.[50] Who could claim ownership of the rotation idea?

One might say in such cases that the owner was the group as a whole. Ordinary property law can certainly recognize a group as an owner, for example, a partnership or a corporation, but with TK, a specific group can be difficult to identify, particularly where different groups make claims to TK. Anthropologist Cori Hayden recounted the experience of well-meaning biological researchers who went to rural Mexico looking for potentially useful medicinal plants; the plan was to get permission from the groups that had discovered and developed each plant's curative qualities and then compensate the group or groups accordingly.[51] But news of their negotiation efforts got around, and the researchers found themselves barraged by the very charges of bio-piracy that they were attempting to avoid, coming from NGOs, intellectuals, and traditional healers; the uproar caused the effort to collapse.[52]

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47. Perhaps most famously, William Blackstone, Commentaries on the Laws of England 4, 7 (1766).

48. Lori M. Campbell, *Introduction* to Jacob Ludig Carl Grimm & Wilhelm Carl Grimm, The Complete Grimm's Fairy Tales xix, xxii–xxiii (Race Point Publ'g 2013).

49. Paul B. Trawick, The Struggle for Water in Peru: Comedy and Tragedy in the Andean Commons 71–100 (2002).

50. Henry E. Smith, *Semicommon Property Rights and Scattering in the Open Fields*, 29 J. Legal Stud. 131, 132, 135–36 (2000).

51. Cori Hayden, *Prospecting's Publics*, *in* Property in Question 115, 115–19 (Katherine Verdery & Caroline Humphrey eds., 2004).

52. *Id.* at 116–17.

Meanwhile, other researchers, wary of this kind of turmoil and welter of conflicting claims from different traditional communities, turned to a different method of collection: They went to local fruit and vegetable markets, asking the vendors about the uses of the various plants.[53] Turning to markets was a way to bypass what property theorists call an "anticommons"[54] but the market route also eliminated the plan to compensate communities for their special knowledge and husbandry of plant varieties. The compensation scheme floundered on what Hayden described as the "key question" in prospecting: "*Who* should be entitled" to the resources that might produce new kinds of value?[55]

TK is by no means the only type of intellectual production in which it seems fanciful to seek a single originator to whom ownership might be attributed. With many, if not most, creative or intellectual efforts, many persons or groups may contribute. Shakespeare's work with the Globe Theater can easily be cited as an example of the proposition that the plays are a group artwork, as opposed to the product of Shakespearean genius alone. In the late 1980s, as critiques of copyright became more prevalent, IP scholar James Boyle used the example of Shakespeare to complain about IP's obsession with finding what Boyle called the Romantic Author, the sole creator or inventor of some important intellectual achievement.[56]

Boyle was undoubtedly right that creative works very often derive from collective efforts, but as a form of property, IP has its own imperatives. I would suggest that IP's quest for a single author has never been Romanticism; on the contrary, it derives from a quite unromantic aspect of property. The point of identifying someone or some group as the owner is to make the product available for grubby old commerce, so that someone can sell it and someone else will know from whom to buy it. Modernist property aims at commerce, but commercial availability of anything entails identifying some limited recognizable entity as the owner. In turn, identification of a particular owner necessarily means giving up on recognizing the full complexity of creative contribution.

Parenthetically, when property is not much involved in commerce, it may well admit much more complex recognition of claimants. Stuart Banner has described the fraught issues when nineteenth-century English settlers wished to purchase land from New Zealand's Māori residents.[57] Before the settlers' arrival, landed property changed hands very seldom, and many individuals had varying claims on any given parcel—for example, one claiming the bark, another the

53. *Id.* at 123–27.

54. *See* Heller & Eisenberg, *supra* note 44, at 698–701.

55. Hayden, *supra* note 51, at 118.

56. James Boyle, *The Search for an Author: Shakespeare and the Framers*, 37 Am. U. L. Rev. 625, 628–34 (1988).

57. Stuart Banner, Colonizing the Pacific: Land, Settlers, and Indigenous People from Australia to Alaska 47–83 (2007).

roots, and a third the leaves of a particular plant—and in addition, a local clan leader had to approve any change of ownership.[58] Would-be English purchasers were thwarted by this complexity (until colonial authorities changed the law), but the situation is a reminder that wide transferability requires a limited set of relatively simple ownership arrangements.[59] Simplifying measures can have adverse consequences, however. From the eighteenth-century Enclosure movement in England to modern land titling programs in less-developed areas, programs to simplify land transfer have ignored complex layers of informal claims like gleaning, wood gathering, or participation in village festivities.[60]

In sum, a major limitation of modern property institutions derives from their promotion of trade and commerce; trade and commerce entail the ability to find or define an owner or specific set of owners—something often not feasible with TK. In defining a specific owner, whether an individual or group, property law undergirds alienability but at the cost of ignoring complex traditional claims and undermining respect for them.

This is not to say, however, that modernist property's tendency to slice away complexity is all to the detriment of members of traditional groups. An important Australian case of 1994, *Bulun Bulun v. R & T Textiles*,[61] might make some observers think twice. The case involved one of those Aboriginal "Dreaming" paintings that have so captured the attention of a wider Australian public. Bulun Bulun was an artist who produced such "Dreaming" paintings, but his clan group claimed that the work was subject to the authority of the clan because it depicted their traditions. For that reason, they argued, the clan group should have a say in the copyright infringement case concerning the sale of a particular painting. The clan group won their claim, and in this particular instance, the artist agreed with clan leaders.[62] But from a modernist property perspective, the case gives reason to pause. The clan's claims could easily mean a loss of autonomy, and income, for an artist.[63] Outsiders are unlikely to know

58. *Id.*

59. *See generally* Thomas W. Merrill & Henry E. Smith, *Optimal Standardization in the Law of Property: The Numerus Clausus Principle*, 110 Yale L. Rev. 1 (2000) (analyzing the need for a limited number of set categories in modern property law).

60. *See* J.M. Neeson, Commoners: Common Right, Enclosure and Social Change in England, 1700–1820, at 158–77 (1993) (discussing informal claims before Enclosure movement); Carol M. Rose, *Invasions, Innovation, Environment*, *in* Hernando de Soto and Property in a Market Economy 21, 32–33 (Benjamin Barrows ed., 2009) (discussing erasure of multiple informal claims in land titling programs).

61. *John Bulun Bulun & Anor. v. R & T Textiles Pty. Ltd.*, (1998) 3 Austl. Indig L. Rep. 547 (Austl.).

62. Brown, *supra* note 5, at 43–54.

63. *See* Farley, *supra* note 8, at 31–33 (describing ambiguity of individual versus group claims in Australian Aboriginal artwork case).

the relationships between individual artists and clan groups, but there is no reason to think that clan leaders are always in accord with their clans' artists.

The relationship between the artist and clan is worth mentioning because, as described earlier, a whole array of property theories stress that a major function of property is to protect autonomy.[64] An autonomy perspective, however, is not necessarily friendly to group claims on individuals' works in traditional styles unless, of course, one thinks of autonomy as group autonomy. More generally, while individual creators may well consider their own identity as linked to the groups to which they belong, group property claims can create some tension with individual autonomy and with a liberal ideal of individual self-direction.[65] That tension can affect creativity as well, insofar as the group insists that artworks have to stay within certain prescribed bounds, although, of course, the boundaries themselves could be a spur to creativity, as with the composition of poetry within the bounds of the sonnet or haiku form.

Summing up so far, I have suggested that conventional versions of modern property have a number of points of friction with TK. That is because modern property, linked as it is to commerce, requires that a property claim be able to define what the property is and who the owner is—and if the owner is a group, just who belongs to the group or speaks with authority for the members.

Insofar as TK does not allow for those definitions easily, it is far too easy to relegate TK to the public domain, up for grabs by anyone who wants to appropriate it for whatever purposes. That means that no compensation or even recognition goes to the traditional creators or their descendants, and possibly also means that matters they wish to maintain in privacy are exposed to the public at large. This is, of course, the route that has heretofore been taken by formal IP law. But there are other aspects of IP too that raise obstacles for TK, particularly focusing on the duration of protection, but implicitly concerning a conflict between the goals of TK protection and conventional IP.

C. Further Limitations of Intellectual Property: Can It Be Permanent?

Traditional communities generally wish to maintain their control of TK forever as a link to ancestors in prior generations and descendants in the future.[66] But IP is not designed for forever. Much although not all of IP lasts only for limited periods, and at the end of the designated periods, IP falls into the public

64. *See supra* notes 15–17 and accompanying text.

65. Carol M. Rose, *Property's Relation to Human Rights*, *in* Economic Liberties and Human Rights 69, 81–83 (Jahel Queralt & Bas van der Vossen eds., 2019); *see also* Hughes, *supra* note 1, at 1253 (arguing that TK protection must balance personhood interests in group membership as well as in individual endeavors); Varadarajan, *supra* note 5, at 402–03 (describing several authors' autonomy concerns over group intellectual property rights).

66. Farley, *supra* note 8, at 17–40 (describing intellectual property doctrines, including limited duration, that conflict with protecting folklore for traditional peoples).

domain. Indeed, many academics and would-be IP users call for considerably shorter time limitations on IP protection, arguing that the current durations far exceed what is needed to encourage creators and inventors.[67] This is especially the case for copyright, where under current law, the protection of an artwork, novel, or piece of music might keep the work out of the public domain for more than a century.[68] The critics of these long durations implicitly reflect the view that augmentation of the public domain is the purpose behind IP in the first place: IP encourages creators and inventors by protecting their work from free riders for a time but with the ultimate goal of increasing the intellectual material available to all for further experiment and development.[69] Proponents of TK protection, on the other hand, have a different goal: the maintenance of control by a group over its past, present, and future cultural achievements.

Trade secret and trademark law, two segments of IP law concerned with unfair business practices, do not have definite time limits and thus, in theory, they might serve the aim of permanent control.[70] However, while legal protection in these areas can last indefinitely, their formal requirements are not entirely suited to the protection of TK. A protected trade secret is generally something of commercial value that the holder has made reasonable efforts to keep secret; if courts or legislatures take a relaxed view of commercial or economic importance—or make what Margo A. Bagley and Justin Hughes call some "modest tweaks"—trade secret might be useful to protect some aspects of TK, like a group's secret ritual practices.[71] But even with such tweaks, trade secret law does not protect against independent discovery, so that this category is much less useful to protect against, say, jewelry designs or other matters that

67. Lessig, *supra* note 45, at 251–52 (proposing fee-based registration requirement plus five-year renewable copyright duration and arguing that short period is enough to encourage creators and that most works would not be renewed and thus enter public domain); William M. Landes & Richard A. Posner, *Infinitely Renewable Copyright*, 70 U. Chi. L. Rev. 471, 517–18 (2003) (similar proposal); *see also* Sopan Deb, *These Classic Characters are Losing Copyright Protection. They May Never Be the Same*, N.Y. Times, Jan. 1, 2024, at B1, https://www.nytimes.com/2024/01/01/arts/public-domain-mickey-mouse.html [https://perma.cc/2XDT-DTH3] (tongue-in-cheek article celebrating "public domain day" when characters created in 1928 lost protection).

68. For works created after the first of January 1978, the copyright term is the life of the author plus 70 years; for this and term limits on earlier works, see U.S. Copyright Office, Circular 15A: Duration of Copyright (2025), https://www.copyright.gov/circs/circ15a.pdf [https://perma.cc/P6YU-2SQZ].

69. Sony Corp. of Am. v. Universal City Studios, 464 U.S. 417, 429 (1984); *cf.* Anupam Chander & Madhavi Sunder, *The Romance of the Public Domain*, 92 Cal. L. Rev. 1331, 1335 (2004) (cautioning against naïve applause of the public domain without considering distributional aspects).

70. Merges et al., *supra* note 3, at 25, 28; Varadarajan, *supra* note 5, at 384.

71. Margo A. Bagley & Justin Hughes, *Secret Traditions as Trade Secrets*, 66 Harv. Int'l L.J. 103, 119–23, 133 (2025) (Special Edition).

can be readily observed or reverse-engineered, or to prevent other groups from divulging similar or identical practices.[72]

As to trademark, this part of IP law aims at preventing consumer confusion about the origin of products or services; the marks themselves can be extremely varied, including slogans, symbols, product shapes, and even colors, but they normally must be used to identify products and services in commerce.[73] The required link to commerce, however, along with the expense of registering trademarks formally, limits their usefulness for much TK.[74] Moreover, even if registered, trademark law protects the mark itself as a designation of origin, and not the goods and services so identified, although the distinction can become blurred, particularly in the case of distinctive design.[75] The idea behind this separation of the mark from the product or process, however, connects trademark to more conventional IP's aim of expanding public knowledge: The separation aims to keep trademark from giving some goods or services the monopoly power of patent or copyright without meeting the criteria or time limitations of those categories.[76]

This is not to say that trademark law is useless to TK, any more than trade secrets law is useless; some argue that traditional groups can deploy trademark law *defensively*, preventing or nullifying others' efforts to suggest that their products have some connection to those same groups.[77] Trademark recognition of geographical designations too could offer some space for certain traditional products.[78] Thus like trade secrets law, trademark law has some potential wiggle room for TK protection. But the formal requirements and general practices of these legal areas still reflect the drive of conventional IP against monopoly control of knowledge and creative work, and toward time limitations and ultimate public disclosure. These characteristics of IP add hurdles for TK that add

72. Varadarajan, *supra* note 5, at 397–98, 405–06.

73. MERGES ET AL., *supra* note 3, at 30.

74. Ruth Okediji, *Grafting Traditional Knowledge onto a Common Law System*, 110 GEO. L. REV. 75, 97–98 (2021).

75. *See*, *e.g.*, Ferrari S.P.A. Esercizio Fabriche Automobili E Corse v. Roberts, 944 F.2d 1235 (2d Cir. 1991), *cert. denied*, 505 U.S. 1219 (1992) (granting trademark protection to distinctive exterior automobile design).

76. *See* Traffix Devices, v. Mktg. Displays, 532 U.S. 23, 29, 32–34 (2001) (denying trade dress protection to functional aspect of road sign device, observing that unlike patent and copyright, trademark/trade dress protection does not keep competitors from copying functional aspects of device); *see also* MERGES ET AL., *supra* note 3, at 784–85 (remarking on "channeling" aspect of case to prevent use of trademark/trade dress as "'back door'" to avoid requirements and time limits of patent and copyright).

77. *See, e.g.*, Richard Awopetu, *In Defense of Culture: Protecting Traditional Cultural Expressions in Intellectual Property*, 69 EMORY L.J. 745, 761–67 (2020) (arguing for defensive use of trademark law, especially though a database of Indigenous symbols).

78. *See* J. Janewa Osei-Tutu, *Protecting Culturally Identifiable Fashion: What Role for GIs?*, 14 FIU L. REV. 571, 580–87 (2021) (arguing for the potential use of geographical indicator protections for traditional textile products and designs but noting limitations).

to the fundamental issues of property discussed above; that is, property only functions when it is reasonably clear *what the property is*, and *who owns it*.

IV. The Traditional Knowledge Scenarios Redux

At this point, I return to the several general types of complaints raised by traditional communities about the absence of protection for TK and raise the question of whether property law and specifically IP might assist, and if so, how.

The first type of complaint was, in effect: "We were robbed. You took our intellectual products and processes without our consent or compensation to us." An analogy to this complaint is the now well-known story of Henrietta Lacks, an African American cancer victim in the early 1950s, whose cancer cells were developed into a highly successful cell line for medical research.[79] Neither she nor her family knew about this appropriation for decades, but the story gradually became known, particularly after it became the subject of a widely-read 2010 book.[80] Thereafter Lacks' descendants demanded and received a settlement from the firm manufacturing the cell line, and Lacks herself became the subject of an array of substantial posthumous honors.[81]

A similar story is well-known to law professors: the 1990 case of *Moore v. Regents of the University of California*, in which a leukemia patient sued because his cells had been taken without his knowledge and then used to create a commercial cell line.[82] Both the Lacks family's and Moore's claims were of a type that IP scholar Wendy Gordon has called restitution,[83] although it might better be called conversion. Both claims suggest the wrongful taking of something from the respective patients. It was not as if either Lacks or Moore was going to do anything with the thing taken, but in each case, it was *theirs*—that is, their property.

Might property law then assist with analogous claims about TK? The outcome of the *Moore* case suggests not. Unlike the Lacks controversy, *Moore* came to trial, and while the California court majority recognized Moore's claim

79. *See generally* Rebecca Skloot, The Immortal Life of Henrietta Lacks (2010).

80. *See generally id.*

81. Amanda Holpuch, *Family of Henrietta Lacks Settles With Biotech Company That Used Her Cells*, N.Y. Times, Aug. 1, 2023, at B4, https://www.nytimes.com/2023/08/01/science/henrietta-lacks-cells-lawsuit-settlement.html [https://perma.cc/8SX4-7Z8F]; Derrick Bryson Taylor, *A Statue of Henrietta Lacks Will Replace a Monument to Robert E. Lee*, N.Y. Times (Dec. 20, 2022), https://www.nytimes.com/2022/12/20/us/henrietta-lacks-statue-roanoke-virginia.html [https://perma.cc/XF7L-944N].

82. Moore v. Regents of the Univ. of Cal., 793 P.2d 479, 480–82 (Cal. 1990), *cert. denied*, 499 U.S. 936 (1991).

83. Wendy Gordon, *On Owning Information: Intellectual Property and the Restitutionary*, 78 Va. L. Rev. 149, 186–87 (1992).

based on lack of informed consent, it rejected his claim to any kind of property right in the product developed from his cells.[84] This does not necessarily mean that a TK property claim would fail; the California court's decision may have stemmed from a reluctance to treat body parts as property, which would be unlikely to be at issue in a TK claim.[85]

But even if *Moore* had recognized property claims in body parts, the analogy to TK might still not hold up well. Body parts come from some identifiable individual, and thus it is easy to identify what they are and who claims them. This is not so certain with TK, given the multiple contributors over time. It might be possible for agencies of the state to intervene, as in India's program creating an inventory of Indian TK.[86] Perhaps with appropriate tweaks to international IP law, consent and payment might be demanded for subsequent uses of TK. Practically speaking, however, compensation to traditional groups might still be fraught. The inventory itself could be rather rough and ready on what the TK is and especially rough and ready on distributing funds back to the originator groups.[87] Instead, a national listing project might be aimed simply at preventing foreign patents and promoting domestic production of something like generic drugs. This is not to say, however, that a national or other governmental listing would be useless in setting the stage for consent and compensation if there were an administrative schedule of criteria for what counts as TK and who owns it, and, of course, a method of measuring compensation.[88]

The second type of complaint runs as follows: "Not only did you take our intellectual productions, but you created serious competition by selling inauthentic copies, and you undermined our reputation with your fake junk." One would expect to see this kind of complaint with artworks, though perhaps elsewhere too, as with exercise routines based on traditional practices. Here, the complaint is not so much robbery or conversion but rather unfair competition and the loss of commercial opportunity. In such cases, the property prospects are more promising. IP is aimed in large part at commercial opportunity,

84. *Moore*, 793 P.2d at 487–97 ("[W]e hold that the allegations . . . state a cause of action for breach of fiduciary duty or lack of informed consent, but not conversion.").

85. *See* Peter Coyle, *The Unsettled Debate at the Heart of the Henrietta Lacks Case*, N.Y. Times (subscriber newsletter) (Aug. 4, 2023), https://www.nytimes.com/2023/08/04/opinion/henrietta-lacks-cells-property.html [https://perma.cc/X2NY-7MGE] (raising several concerns about treating bodies and body parts as property, particularly potential negative impacts on research).

86. Abha Nadkarni & Shardha Rajam, *Capitalising the Benefits of Traditional Knowledge Digital Library (TKDL) in Favor of Indigenous Communities*, 9 NUJS L. Rev. 183, 183–84 (2017).

87. *See id.* at 193–94 (faulting India's inventory for failure to compensate Indigenous originators of TK).

88. One compensation issue is the ex-ante and ex-post problem; compensation before the development of other products might look quite different from compensation later, after a successful development. *See* Margo A. Bagley, *The Fallacy of Defensive Protection for Traditional Knowledge*, 58 Washburn L.J. 323, 332–40, 347, 351 (2019) (criticizing India's "defensive" approach as ineffective, proposing South Africa's "positive" protections adding right to exclude).

and this kind of claim might well be served by adjustments to certain kinds of IP, especially the trade secret and trademark law discussed above. Another possible approach, now a part of U.S. trademark law, could be certification marks—something like a seal of approval akin to Good Housekeeping or Kosher designation.[89] A traditional group might use such a certification procedure to identify what comes from the group and who counts as the owner or owners. Certification, too, has some challenges, of course; a group might overstate what its TK is, perhaps necessitating some kind of disinterested third-party approval. But on the whole, an unfair competition complaint is easier to imagine as falling within an IP regime. Such IP status might also bolster consumer education, simply by expanding the opportunities for traditional groups to voice their concerns.

The third type of complaint is much more difficult to imagine in an IP regime. Roughly speaking, it goes like this: "You told outsiders about practices that are central to our identity and that were never intended to be disclosed to non-members." The relevant TK is likely to involve prayers, songs, dances, or cultural practices, which the group wishes to distribute only to its members. The group aims to keep this knowledge secret and not to let the outside world know about it, even if outsiders would pay for it. Thus, this grievance complaint does not concern theft (though a kind of theft may be involved), nor does it concern unfair competition. Rather, the objection is a matter of dignity and identity—a violation of privacy in the form of disclosure of confidential information.

In demanding secrecy of this kind, the traditional group's interest runs contrary to the usual function of modernist property to promote commerce and to the usual function of *intellectual* property to expand knowledge. The group's interest is anti-commerce and anti-information. In IP, trade secrecy would appear to offer certain analogous protection, but trade secrecy is, after all, chiefly about *trade* and about protecting business secrets from free riders so that the business itself can continue to be a market player—not so the traditional group that wants simply to keep its TK to itself.

The only answer to this kind of plea may be just old-fashioned secrecy. Refuse permission to outsiders to come to the dances. Especially refuse permission to anyone with a camera and recording equipment. Tell a lot of tall tales to throw interlopers off the track. Do not tell anthropologists anything either, no matter how genuinely interested they seem, because they will spill the news and the TV cameras will follow.

Is something lost by these secrecy tactics? Yes, something is lost, at least to the rest of the world, just as something was lost to the rest of the world when

89. *See Made/Produced by American Indians Trademark*, Intertribal Agriculture Council, https://www.indianag.org/trademark [https://perma.cc/AVX4-9SBU].

the Stradivarius violin makers went to their graves with their secrets about how to make their instruments.[90] But at least the Stradivarius violins are in commerce (in very limited numbers!), and modern violin makers can continue to try to unlock their secrets.[91] When traditional communities guard their secrets intensely, their TK is but a shadow to everyone else. The loss to the rest of us may be a gain to the traditional community, however, in the form of maintaining an ongoing identity.[92]

Having said all this, a somewhat cynical observer might see the first and third of these claims, that is, conversion and privacy, as sliding at times into the second claim: commercial opportunity. This could happen if a traditional group is somewhat more relaxed about sharing knowledge of its cultural practices, and as outsiders' uses illustrate new possibilities and new markets for TK. The Haka war dance of the New Zealand Māori gives an example of the possibilities. With appropriate legal protections, the clan or iwi would fully control the dance and decide who can and who cannot use it and how. Past controversies show that it would be all right for the New Zealand rugby team, the All Blacks, but not all right for Fiat's auto advertisements.[93]

The iwi might well have better compensation prospects from an auto ad, but that thought points to another important point: There is a tradeoff between money and meaning. Getting more money usually requires opening up what one has to a wider bidding pool; thus, generally speaking, the more money, the more dilute the meaning, at least insofar as meaning is tied to a particular group's identity. To give an example, some years ago, I attended a conference at

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90. *See* Barbara Jepson, *It's No Disgrace to Be Second Fiddle to a Stradivarius*, SMITHSONIAN MAG., Oct. 1990, at 160 (describing modern efforts to re-create sound quality of eighteenth-century Cremona instruments).

91. *Id.*

92. *See* BROWN, *supra* note 5, at 30–31 (describing several Native American groups' rigorous secrecy in defending religious practices but also noting the risk of loss of knowledge where too few members hold the secrets).

93. *See* Haka Ka Mate Attribution Act 2014, ss. 3, 7–10, sch. 1 (N.Z.); *see also* Associated Press, *Agreement with Maori tribe saves All Blacks' haka*, NATIVE TIMES (Mar. 17, 2011), https://nativetimes.com/news/international/5071-agreement-with-maori-tribe-saves-all-blacks-haka [https://perma.cc/AC3A-ALS7] (describing agreement between Māori and All Blacks that team could use haka in contests but would compensate clan if used in advertising); Ellen Connolly, *Maori Win Battle to Control All Blacks' Haka Ritual*, THE GUARDIAN (Feb. 11, 2008), https://www.theguardian.com/world/2009/feb/12/new-zealand-haka-maoris [https://perma.cc/QT28-JKAR] (describing All Blacks' permitted use of haka and Fiat's unpermitted use); Susy Frankel, *"Ka Mate Ka Mate" and the Protection of Traditional Knowledge*, *in* INTELLECTUAL PROPERTY AT THE EDGE: THE CONTESTED CONTOURS OF IP 193, 198–201, 212 (Rochelle Cooper Dreyfuss & Jane C. Ginsburg eds., 2014) (describing various versions of haka, All Blacks' usage, and Fiat incident). *But see* Isabella Tekaumarua Wilson, *The Misappropriation of the Haka: Are the Current Legal Protections Around Mātauranga Māori in Aotearoa New Zealand Sufficient?*, 51 VICTORIA U. WELLINGTON L. REV. 523, 546–51 (2020) (arguing that current legal protections for Haka and other Māori TK are inadequate).

which one speaker lamented the dilution of the meaning of Kwanza, as blue-haired white ladies from the suburbs attended the celebrations, often wearing some variation of Kente cloth. But those outsiders are customers for the jewelry, the greeting cards, and the textiles, as is now illustrated by the wide distribution and variety of Kente designs.[94]

As I said at the time, I am that blue-haired white lady with a Kente cloth scarf. I am also the white lady who once cluelessly bought a T-shirt with an Australian Aboriginal Dreamtime painting knock-off. But I soon learned the significance of the design, and I never wore the T-shirt again, so I like to think that I am educable about the respect due to traditional practices and products. On the other hand, my respect could have meant that I refrained from buying, even if the proceeds had compensated the Aboriginal creators—and there is the tradeoff.

Conclusion

Modern property institutions require the ability to define what any given article of property is and to designate who the owner is, but those requirements run into many problems with TK. Not all are insoluble, but solutions may depend on doctrinal modifications and perhaps intermediate institutions to arrive at rough approximations of the *what* and the *who* of property in TK. Moreover, it may be that, in order both to protect TK as a link to identity and to reward current makers, methods other than or in addition to property may be needed, including not only new legal categories, but also changes in the culture of the neighbors of traditional communities. Examples of other informal methods might be the self-help of secrecy and the shaming of unauthorized imitators. But perhaps most important is a growing worldwide ethos of respect for the accomplishments of artists and inventors whose work today draws on the work of their own previously underappreciated communities.

94. Elizabeth Ohene, *Letter from Africa: Kente - the Ghanaian cloth that's on the catwalk*, BBC (Mar. 23, 2021), https://www.bbc.com/news/world-africa-56484264 [https://perma.cc/3E6G-KLMV] (describing many varieties and wide distribution of Kente cloth, Africans' mixture of pride at recognition but also dismay about cheap knockoffs produced elsewhere).