PROPERTY LOST IN TRANSLATION

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ABSTRACT

The world is full of localized, non-standard property regimes that co-exist alongside state property laws. This Article provides the first comprehensive look at the phenomenon of localized property systems, and the difficulties that necessarily attend the translation of localized property rights.

Rather than survey the numerous localized property systems in the world, this Article explores the common features of the interaction between localized and state property systems. All localized property systems entail translation costs with the wider state property systems around them. Translation costs result from incompatibilities, as well as information and enforcement costs. Focusing on translation costs, the Article examines the pressures for localized systems to converge into larger state systems, as well as the features of localized property that may keep it distinct. Additionally, the Article shows that state protection of localized property systems (such as Norwegian protection of the property rights of the indigenous Sami people) may sometimes lower translation costs, but may also lower the utility of the localized systems through poor incorporation into state law.

Understanding localized property systems has important implications for understanding the nature of property.

Property Lost in Translation

Property law systems, like other legal systems, have greater utility with greater numbers of adherents. Thus, using the insights of the economics of network effects is crucial to understanding property. Another potential insight stemming from our analysis is in the theory of commons property: translation costs must be taken into account when examining collective action solutions to tragedies of the commons.

INTRODUCTION

Property, we are told, is a matter of state law.[1] But the world is full of localized, non-standard property regimes that co-exist alongside state property laws. For instance, anthropologists, economists and legal scholars have eagerly analyzed property and quasi-property arrangements such as Native American tribal property,[2] informal property rights in *favelas* in Brazil,[3] the rights of the nomad Sami in Scandinavia,[4] Bedouin rights in the Middle East,[5]

[1] *See, e.g.*, Stop the Beach Renourishment, Inc. v. Florida Dept. of Envtl. Prot., 130 S. Ct. 2592, 2597 (2010) ("Generally speaking, state law defines property interests. . . ."); Barnhill v. Johnson, 503 U.S. 393, 398 (1992) ("'[P]roperty' and 'interests in property' are creatures of state law" . . .); Thomas W. Merrill, *The Landscape of Constitutional Property*, 86 VA. L. REV. 885, 920 (2000) (stating that property interests are created by state law).

[2] *See, e.g.*, Kenneth H. Bobroff, *Retelling Allotment: Indian Property Rights and the Myth of Common Ownership*, 54 VAND. L. REV., 1559, 1599-1600 (2001); Susan B. Bruning, *Complex Legal Legacies: The Native American Graves Protection and Repatriation Act, Scientific Study, and Kennewick Man*, 71 AM. ANTIQUITY 501, 507-10 (2006); Heather A. Weckbaugh, *Federal Indian Law*, 76 U. DENV. L. REV. 845, 848 (1999); Jeremie Gilbert, *Nomadic Territories: A Human Rights Approach to Nomadic People's Land Rights*, 7 HUM. RTS. L. REV. 681, 685 (2007).

[3] *See, e.g.*, Colin Crawford, *The Social Function of Property and the Human Capacity to Flourish*, 80 FORDHAM L. REV. 1089, 1105 (2011); Ngai Pindell, *Finding a Right to the City: Exploring Property and Community in Brazil and in the United States*, 39 VAND. J. TRANSNAT'L L. 435, 447 (2006); Greg O'Hare, *Urban Renaissance: New Horizons for Rio's Favelas*, 86 GEOGRAPHY, 61, 62 (2001); Edesio Fernandes, *The Regularization of Favelas in Brazil – The Case of Belo Horizonte*, 2 SOC. LEG. STUD. 211, (1993) (describing the movement to grant legal title to favela dwellers); Winter King, *Illegal Settlements and the Impact of Titling Programs*, 44 HARV. INT'L L. J. 433, 440 (2003) (suggesting that gentrification of favelas will not occur without the lure of title ownership).

[4] *See, e.g.*, Else Grete Broderstad, *The Promises and Challenges of Indigenous Self-determination: The Sami Case*, 66 INT'L J. 893, 903 (2011) ("The state acknowledged the need to distinguish between state supervisory authority and owner possession."); Tom G. Svennson, *Ethnopolitics among the Sámi in Scandinavia: A Basic Strategy Toward Local Autonomy*, 39 ARCTIC INST. N. AM 208, 210-211 (1986); Tom G. Svennson, *Industrial Developments and the Sámi:*

and collective property in kibbutzim in Israel.[6]

Localized property arrangements are not restricted to culturally distinct groups. They can be found in certain industries—think, for example, of the quasi-property rights in landing slots in airports[7]—or certain activities—such as the virtual property of gamers.[8] Indeed, they can be found in nearly all situations. Consider, for instance, the informal "ownership" arrangements that characterize the typical household.[9]

In one sense, this potpourri of localized property and quasi-property regimes shares nothing in common. Some emerged from longstanding and venerable traditions, others were shaped by ideology and others still were born of necessity or convenience. Some are held together by contract or other legal tools, and others in custom or social convention. Unsurprisingly, while each of these regimes has been studied on a stand-alone basis, no one has ever thought to link

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Ethnopolitical Response to Ecological Crisis in the North, 29 ANTHROPOLOGICA, 131, 141-42 (1987); Lawrence Watters, *Indigenous Peoples and the Environment: Convergence from a Nordic Perspective*, 20 UCLA J. ENVTL. L & POL'Y 237, 282-287 (2002); Jeremie Gilbert, *Nomadic Territories: A Human Rights Approach to Nomadic People's Land Rights*, 7 HUM. RTS. L. REV. 681, 710 (2007) (discussing how usage rights to hunt across borders were protected as early as 1751); Ivar Bjorkland, *Sami Reindeer Pastoralism as an Indigenous Resource Management System in Northern Norway: A Contribution to the Common Property Debate*, 21 DEVELOPMENT AND CHANGE 75 (1990) (describing Sami reindeer pastoralism as the shared management of herds despite individual ownership of the animals).

[5] *See, e.g.*, Yehuda Gruenberg, Note, *Not all Who Wander Should be Lost: The Rights of Indigenous Bedouins in the Modern State of Israel*, 34 BROOK. J. INT'L L. 185, 189 (2008); Michael Ginguld *et al.*, *Living on the Margins: Livelihood Strategies of Bedouin Herd-Owners in Northern Negev, Israel*, 25 HUM. ECOLOGY 567, 571-73 (1997); Ronen Shamir, Suspended in Space: Bedouins Under the Law of Israel, 30 LAW & SOC'Y REV. 231, 237 (1996); Havatzelet Yahel, *Land Disputes Between the Negev Bedouin and Israel*, 11 ISR. STUD. 1 (2006).

[6] *See, e.g.*, Robert C. Ellickson, *Property in Land*, 102 YALE L.J 1315, 1347-48 (1993); Amir Helman, *The Israel Kibbutz as a Socialist Model*, 148 JITE 168, 170-71 (1992); M. Keren et al., *On the Stability and Viability of Co-Operatives: The Kibbutz as an Example*, 56 ACTA OECONOMICA 301, 304-305 (2006); J. Weisman, *The Kibbutz: Israel's Collective Settlement*, 1 ISR. L. REV. 99, 102 (1966).

[7] *See* William H. Riker & Itai Sened, *A Political Theory of the Origin of Property Rights: Airport Slots*, 35 AM. J. POL. SCI. 951 (1991); Itai Sened & William H. Riker, *Common Property and Private Property: The Case of Air Slots*, 42 J. THEORETICAL POL. 427 (1996).

[8] *See* Joshua A.T. Fairfield, *Virtual Property*, 85 B.U. L. REV. 1047 (2005); F. Gregory Lastowka & Dan Hunter, *The Laws of the Virtual World*, 92 CAL. L. REV. 1 (2004).

[9] *See* Robert C. Ellickson, *Unpacking the Household: Informal Property Rights Around the Hearth*, 116 YALE L. J. 226 (2006).

them all. Seemingly, there is nothing so local as localized property arrangements.

But, as we show in this Article, the very diversity of dissimilar property and quasi-property systems gives rise to an important and ubiquitous aspect of property laws. In this Article, we argue that examining localized property regimes as a phenomenon, together with the problems encountered by property-holders in such regimes, shows us that property rules—in every environment—are highly contingent on the networks in which they operate. Property rules of one network must frequently interact with different and sometimes inconsistent rules of another network.

In other words, property rules are always limited to a social context, and they are always vulnerable to incompatibility with other property rules. In order for alternative localized property arrangements to be incorporated effectively into the property system of the jurisdiction in which they exist, they must be deciphered and translated. The need for deciphering and translating dramatically increases the cost of maintaining alternative property regimes and correspondingly diminishes the value of assets and resources held under such regimes. Naturally, the more complex or idiosyncratic these regimes are the greater the cost incurred by the group adopting them.

The core insight may be explained by reference to the economic term "network effects."[10] Essentially, we argue that all legal property

[10] For discussions of the term "network effects" in legal contexts, *see* Mark A. Lemley & David McGowan, *Legal Implications of Network Economic Effects*, 86 CAL. L. REV. 479, 483 (1998); Howard A. Shelanski & J. Gregory Sidak, *Antitrust Divestiture in Network Industries*, 68 U. CHI. L. REV. 1, 5 (2001) ("A network externality, or 'network effect,' exists when the value of a product or service increases with the breadth of demand for that product or service."). *See generally* Jeffrey Rohlfs, *A Theory of Interdependent Demand for a Communications Service*, 5 BELL J. ECON. & MGMT. SCI. 16 (1974); Stanley M. Besen & Joseph Farrell, *Choosing How to Compete: Strategies and Tactics in Standardization*, 8 J. ECON. PERSP. 117 (1994); Michael L. Katz & Carl Shapiro, *Product Introduction with Network Externalities*, 40 J. INDUS. ECON. 55 (1992); Garth Saloner, *Economic Issues in Computer Interface Standardization*, 1 ECON. INNOV. NEW TECH. 135 (1990); Stanley M. Besen & Garth Saloner, *The Economics of Telecommunications Standards*, *in* ROBERT W. CRANDALL & KENNETH FLAMM, EDS., CHANGING THE RULES: TECHNOLOGICAL CHANGE, INTERNATIONAL COMPETITION, AND REGULATION IN COMMUNICATIONS 177 (1989); Janusz A. Ordover & Garth Saloner, *Predation, Monopolization, and Antitrust*, *in* RICHARD SCHMALENSEE AND ROBERT D. WILLIG, EDS., 1 HANDBOOK OF INDUSTRIAL ORGANIZATION 537 (North-Holland 1989); Joseph Farrell & Garth Saloner, *Installed Base and Compatibility: Innovation, Product Preannouncements, and Predation*, 76 AM. ECON. REV. 940

arrangements are characterized by network effects. The value of legal regimes increases with the number of people (or assets) subject to them. In that sense, the law is akin to a technological standard.[11] Adopters of the legal standards increase the value of their assets; those who opt out can only do so at the cost of lowering the value of their assets. Like technology, property needs develop over time, requiring the development of new standards and the abandonment of old ones. Transitioning between standards is costly and difficult. Sometimes, pockets of holdouts remain with the old standard, even as the new standard conquers the market.[12]

Our core insight also suggests an important refinement to the study of the evolution of property institutions. It suggests that once a society-wide property standard emerges, it becomes increasingly difficult to preserve alternative localized regimes. This is because the cost of deviating from the societal standard will tend to increase over time. Consider the example of the kibbutzim in Israel. The kibbutzim were founded on the basis of a shared strong socialist ideology that shunned private property.[13] Originally, kibbutzim absolutely prohibited private property; members who sought to acquire private property were banished from the community. However, over time, socialism declined in popularity in Israel and private property arrangements became more popular in the society at large. As private property became the norm in Israel, two things happened in the kibbutzim: first, the cost of adhering to collective property arrangements within the kibbutz increased, and second, the socialist

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(1986); Michael L. Katz & Carl Shapiro, *Product Compatibility Choice in a Market with Technological Progress*, 38 OXFORD ECON. PAPERS 146 (Supp 1986); Michael L. Katz & Carl Shapiro, *Technology Adoption in the Presence of Network Externalities*, 94 J. POL. ECON. 822 (1986); Joseph Farrell & Garth Saloner, *Standardization, Compatibility, and Innovation*, 16 RAND J. ECON. 70 (1985); Michael L. Katz & Carl Shapiro, *Network Externalities, Competition, and Compatibility*, 75 AM. ECON. REV. 424 (1985).

[11] *See* Michael L. Katz & Carl Shapiro, *Systems Competition and Network Effects*, 8 J. ECON. PERSP. 93, 105-06 (1994); Stanley M Bensen & Joseph Farrell, *Choosing How to Compete: Strategies and Tactics in Standardization*, 8 J. ECON PERSP. 117, 117-19 (1994); John T. Soma & Kevin B. Davis, *Network Effects In Technology Markets: Applying The Lessons Of Intel And Microsoft To Future Clashes Between Antitrust And Intellectual Property*, 8 J. INTELL. PROP. L. 1, 4 (2000) (stating that the need for compatibility between machines coupled with network effects propels pioneering technology companies to monopolies).

[12] *See* Michael L. Katz & Carl Shapiro, *Systems Competition and Network Effects*, 8 J. ECON. PERSP. 93, 106 (1994); *see also* Hansmann, Henry, *Corporation and Contract*, 8 AM. L. & ECON. REV. 1, 6-7 (2006) (describing the possibility of network effects discouraging innovation in corporate charters).

[13] *See infra*, Part I.A.2.

ideology that was once the hallmark of the kibbutzim declined in popularity. As a result, kibbutzim gradually transitioned from collective property to private property, i.e., they gradually swapped their idiosyncratic localized socialist property system for one that was closer to the free market private property system used by the surrounding society. Nowadays, only a few kibbutzim retain a collective property system; all the rest—several hundreds of them—have succumbed to the pressure and opted for some version of private property.[14]

The general lesson is simple. Once a certain property arrangement becomes the standard in any given jurisdiction, chances increase that alternative localized property regimes will have to adjust over time to the norm. Of course, we are *not* suggesting that over time there will be perfect convergence. Alternative property regimes may survive in the long run for a variety of reasons. First, the cost of bringing them into conformity with the standard may be too high. This may be the case with the informal property arrangements in the *favelas* in Rio de Janeiro and elsewhere in Brazil.[15] Second, sometimes localized gains may create an interest group strong enough to prevent convergence even at a cost to general welfare. This can be most easily seen in certain kinds of political resistance to change.[16] Third, the general population may have a preference for preserving an alternative regime and may even be willing to subsidize it, as may be the case with the attitude of the Norwegians to the Sami.[17]

The remainder of the Article elaborates this central claim and unfolds in four parts. In Part I, we discuss the phenomenon of localized property and quasi-property regimes. We demonstrate the ubiquity of such regimes and analyze their roots. In Part II, we study the interaction between localized arrangements and the property systems that surround them. We show that to varying degrees all localized property forms give rise to the problem of translation—the process by which localized arrangements are operationalized within the external property framework. We also show that the need for translation diminishes the value of alternative property arrangements for right-holders. Furthermore, it creates an evolutionary pressure on such forms and presents them with the choice of "comply or die." In part III, we explore the circumstances in which localized property systems will successfully resist convergence. We show that while

[14] *Id.*
[15] *See infra*, Part I.B.1.
[16] *See infra,* Part III.A.
[17] *See infra*, Part I.A.3.

these examples are numerous, this is not due to the absence of translation concerns, but rather, because other factors prevent full translation of localized property systems into the property systems of larger jurisdictions. Given this background, we show that we should expect to continue seeing partially incompatible property systems despite translation costs. In part IV, we explore the implications of our analysis for ongoing property debates. These debates include the effectiveness of managing resources in the commons by tightly-knit communities, the conditions under which semi-commons prove a viable stage in the evolution of property rights, and the applicability of Hernando de Soto's observations about the importance of formalized property rights.

A short conclusion follows.

I. THE CREATION OF LOCALIZED PROPERTY

In this Part, we analyze the widespread phenomenon of localized property arrangements. Such arrangements may arise on a relatively large scale that encompasses ethnic, socio-economic, or ideological groups, or on a more modest scale that is limited to certain neighborhoods or even households. We define "localized property rights" to mean *in rem* arrangements that govern the rights of duties of individuals with respect to resources that avail against all the individual members of a certain group or community. Accordingly, localized property rights are analogous but not identical to formal property rights. Formal property rights grant *in rem* protection that avail against all persons within a legal jurisdiction,[18] while localized property rights avail only against persons within the localized group.

Despite their more limited scope, from the vantage point of the relevant community or locality, localized property rights may be more important than formal property arrangements. Localized property norms may be better tailored to the local community's economic needs or more consistent with the community's ideological preferences or cultural heritage. Even where localized property rules lack formal legal backing, they may prove durable and enforceable. Localized property rules may be enforceable by extra-legal measures; for instance, the group may impose social penalties such as ostracism or even extra-legal penalties such as violence on group members that

[18] Thomas W. Merrill & Henry E. Smith, *The Property / Contract Interface*, 101 COLUM. L. REV. 773, 777 (2001) ("Property rights, on the other hand, are in rem- they bind 'the rest of the world.'").

violate the rules of localized property regime.[19]

Localized property arrangements, on various scales, can be seen everywhere. In the Introduction, we mentioned the norms that evolved among various indigenous groups,[20] but, in fact, localized property arrangements exist in many other settings that permeate our daily life. Richard Epstein, for example, described a relatively elaborate system of property rights that evolved in different localities in the United States with respect to on street parking spaces.[21] Similar rights may be seen in the arrangements that attend reserving racquetball courts, or other recreational areas.[22] But perhaps an even more familiar example can be found in the rights and duties that arise among college roommates. Roommates typically co-own the lease rights to the realty in which they dwell. In addition, they may purchase various home appliances, electronic devices and computer equipment together. As roommates acquire property, they develop a system of rules that govern exclusion, use and transfer of the assets.

Naturally, an in-depth discussion of all localized property arrangement is beyond the scope of this Article. Each arrangement deserves its own article, if not book. We will confine ourselves, therefore, to a few chosen examples that represent the broader phenomenon. The examples we discuss at a greater length in this Article include the kibbutzim in Israel, the *favelas* in Brazil, the property rights of the Sami in Norway and Native American tribe members in the United States. Even with this restricted list, we will only be able to provide a fleeting glimpse into those property arrangements. As should be clear, we do not presume to make an anthropological contribution. Rather, we hope to advance our understanding of property theory and the examples are offered strictly to this end. That said, our examples, or case studies, are varied and cover a wide array of property settings. In fact, it is precisely the diversity of property options that can be found in our case studies that assure us that the general theoretical conclusions are of general

[19] *See* Elinor Ostrom, *Collective Action and the Evolution of Social Norms*, 14 J. ECON. PERSP. 137, 148-53. For a general discussion of the penalties imposed in order to enforce social norms, *see* Eric A. Posner, LAW AND SOCIAL NORMS 11-35 (2000).

[20] *See supra*.

[21] Richard Epstein, *The Allocation of the Commons: Parking on Public Roads*, 31 J. LEGAL STUD. S515 (2002).

[22] *See* Ellickson, *supra* note 6, at 1386-87; Douglas Laycock, *Equal Access and Moments of Silence: The Equal Status of Religious Speech by Private Speakers*, 81 NW. U. L. REV. 1, 19 (1986) (describing the process of reserving time in public parks as not involving governmental support or endorsement).

applicability and are not dependent on any particular design of localized property arrangements.

A. *"Official" Localized Property Regimes*

We begin our examples of localized property regimes by looking at several "official" ones. By describing these regimes as "official," we mean that even though the localized regimes employ property rules distinct from those in the wider legal jurisdiction, they nevertheless enjoy some kinds of formal legal recognition. Native American (or "Indian") property, for instance, is the subject of numerous federal laws and regulations. However, despite the "official" recognition, the localized regimes remain distinct. Different rules apply to Native American property, and the property rights within the Native American property regime are limited in transferability and in other ways.

1. Native American Tribal Property

Native American property rights in the United States are a peculiar blend of state law and local customs. Native Americans were present on the land, and used it, long before the existence of the state, or the state's extension of sovereignty to the land. Most Native American tribes were popularly known to Europeans as American Indians, and the label continues to be used in many contexts today,[23] particularly to distinguish the American Indians from Eskimos (a name considered pejorative in Canada)—the Native Americans found primarily in Alaska, Siberia, Canada and Greenland.[24] We use the terms Native American and American Indian interchangeably in this Article.

Native Americans' customary property claims predate the state, but are considered outside the chain of title of formal state-sanctioned property rights.[25] Justice John Marshall's landmark ruling in *Johnson v. M'Intosh*[26] established the basic rules that have shaped Native

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[23] *See, e.g.*, Kathryn Walbert, *American Indian vs. Native American: A Note on Terminology*, LEARN NC (last visited June 24, 2012) http://www.learnnc.org/lp/editions/nc-american-indians/5526 (discussing the appropriate use of Native American and Indian).

[24] *See* JACK UTTER, AMERICAN INDIANS: ANSWERS TO TODAY'S QUESTIONS 105-06 (2d ed. 2001).

[25] Kenneth H. Bobroff, *Indian Law in Property: Johnson v. M'Intosh and Beyond*, 37 TULSA L. REV. 525, 523-25 (2001-2002).

[26] 21 U.S. (8 Wheat.) 543 (1823).

American property rights for the past two centuries. Under *Johnson*, the root of title in the U.S. is property rights established by European conquerors. Any American Indian property rights are inferior rights of "occupancy" only; not only are they inalienable to private parties and ineligible for being upgraded into proper title, they may be swept away by fiat of the U.S. government. At the same time, *Johnson* preserves for Native American tribes a quasi-sovereign status. This quasi-sovereign status, too, is inferior. Native American tribes cannot claim the rights of independent states, and their sovereignty can be quashed by the U.S. at will. However, so long as and to the degree that the United States chooses to respect American Indian sovereignty, the tribes can regulate their internal affairs, including internal property rights.[27]

As conventional wisdom notes, Native American conceptions of property differed greatly from those of the European settlers. The evidence suggests that the Native American tribes encountered by British colonists had a system of semicommons ownership similar to that used in England prior to the "enclosure" movement.[28] This meant that large land tracts were owned by villages, and the village chiefs allocated use rights and possessory rights to individual tribe members for agricultural purposes. Other parts of the village land were preserved for non-farming uses, such as gathering wood.[29] However, these property rights were gradually swept away, sometimes by sales to encroaching colonists, and sometimes by forcible dispossession.[30]

As the U.S. conquered land to the Pacific, it progressively reserved Native American quasi-sovereignty to smaller and smaller areas. Native American land holdings outside these reservations practically disappeared. Theoretically, the reservations became pockets of land where Native American property rights held. However, repeated U.S. efforts to regulate Native American property, with mixed motives and less-than-perfect knowledge, created a system of property that was separate from the usual property law

[27] *See, e.g.*, *U.S. v. Tsosie* 92 F.3d. 1037 (10th Cir. 1996) (denying a hearing in federal court until remedies in tribal court were exhausted); Gooding v. Watkins 142 F. 112 (8th Cir. 1995) (applying Chickasaw law in rejecting an adverse possession claim).

[28] For more on the English semicommons, *see* Henry Smith, *Semicommon Property Rights and Scattering in the Open Fields*, 29 J. LEGAL STUD. 131, 160 (2000) and *infra* Part IV.B.

[29] STUART BANNER, HOW THE INDIANS LOST THEIR LAND: LAW AND POWER ON THE FRONTIER 37-39 (2005).

[30] *Id.* at 191-226.

within the states, but was not quite Native American either.[31]

Formally, the United States holds title to the reservation lands in trust for the tribes.[32] Until the late nineteenth century, federal law viewed reservation land as being held in common by tribal members.[33] However, in 1887, the United States adopted a policy of "allotment," under which reservation land was partitioned into smaller plots that could eventually be individually owned by tribal members.[34] The Dawes Act, which implemented the policy, remained in force until 1934.[35] The law maintained title in the federal government and allocated individual Native Americans interests in trust, for a transitional period. During the transitional period, the law forbade alienation of the land outside the tribe, while permitting the sale of leaseholds and other lesser interests. Finally, the government claimed for itself the right to purchase "unallocated" lands.[36]

As a result of the partial privatization, numerous Native Americans sold leases and eventually title to their lands, leading to a situation in which 86 million of the 138 million acres of reservation land were lost to Native Americans between 1887 and 1934.[37] The consequence was a serious erosion of Native American communities to survive cohesively. At the same time, the restrictions on alienation

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[31] James Clifford, *Identity in Mashpee*, in READINGS IN AMERICAN INDIAN LAW: RECALLING THE RHYTHM OF SURVIVAL 18, 21 (Jo Carrillo ed. 1998) ("In short, the United States will permit Indians a measure of recompense [for taken land] through the law…but it ultimately makes the rules and arbitrates the game.); Robert N. Clinton, *Redressing the Legacy of Conquest: A Vision Quest For a Decolonized Federal Indian Law*, 46 ARK. L. REV. 77 (1993).

[32] *See e.g.*, Kathleen R. Guzman, *Give or Take an Acre: Property Norms and the Indian Land Consolidation Act*, 85 IOWA L.REV. 595, 651 (2000); Vickie Enis, *Yours, Mine, Ours? Renovation the Antiquated Apartheid in the Law of Property Division in Native American Divorce*, 35 AM. INDIAN L. REV. 661, 662 (2011); Judith V. Royster, *The Legacy of Allotment*, 27 ARIZ. ST. L. J. 1, 8 (1995) ("Indian lands set aside as reservations were eventually recognized as being 'in trust' for the tribes").

[33] STUART BANNER, HOW THE INDIANS LOST THEIR LAND: LAW AND POWER ON THE FRONTIER 254 (2005).

[34] General Allotment Act of 1887, ch. 119, 24 Stat. 388 (better known as the Dawes Act), codified at 25 U.S.C. §§331-34.

[35] Indian Reorganization Act of 1934, ch. 576, 48 Stat. 984, codified at 25 U.S.C.S. §§ 461-494 (1934). *See also,* GRAHAM D. TAYLOR, THE NEW DEAL AND AMERICAN INDIAN TRIBALISM: THE ADMINISTRATION OF THE INDIAN REORGANIZATION ACT, 1934-45, 19-21 (1980) (recounting the effects of the Indian Reorganization Act and the repeal of the Dawes act).

[36] STUART BANNER, HOW THE INDIANS LOST THEIR LAND: LAW AND POWER ON THE FRONTIER 278-79 (2005).

[37] Ronald A. Janke, *Population, Reservations, and Federal Indian Policy* in DICTIONARY OF NATIVE AMERICAN LITERATURE (Andrew Wiget, ed., 2005).

of the land created highly fractionated land interests. As the Court explaned in *Hodel v. Irving*, "40-, 80-, and 160-acre parcels became splintered into multiple undivided interests in land, with some parcels having hundreds, and many parcels having dozens, of owners. Because the land was held in trust and often could not be alienated or partitioned, the fractionation problem grew and grew over time."[38]

The Indian Reorganization Act of 1934[39] ended the allotment policy, but could not re-aggregate the fractional holdings. The U.S. Congress attempted to force consolidation through escheat in the Indian Reorganization Act of 1934,[40] but the Supreme Court struck down the provision of the law as an unconstitutional uncompensated taking.[41] Restrictions on alienation of reservation land remain part of U.S. law.[42] Today, some "allotted lands" remain in trust for Native American tribes, alongside reservation lands. Other lands are held in trust by states for Native Americans, or held in trust by individual persons or tribes.[43]

The end result is a bubble of ethnically-limited property rights for Native Americans, within a wider system of state law. However, the picture for Native Americans is considerably more complicated. Native American property is not limited to usage rights; Native Americans have actual, though limited title to the land. The sovereign rights of Native American tribes are limited, but they are considerably greater than those of the Sami, as we shall see.[44] This means, among other things, that Native American tribes have considerable authority over land use issues on reservations.[45] Another complication results from the federal system that characterizes U.S. but not Norwegian law. Property law is generally the province of state law, rather than federal law, in the United States. This means that understanding the full picture of Native American property law requires examining not only the federal law that supplants and controls Native American law, but also the state law that applies to realty geographically surrounding Native American land.

[38] *Hodel v. Irving*, 481 U.S. 704, 707 (1987).
[39] Indian Reorganization Act of 1934, ch. 576, 48 Stat. 984, codified at 25 U.S.C.S. §§ 461-494 (1934).
[40] *Id.* at §464.
[41] *Hodel*, 481 U. S. at 716-17; *Babbitt v. Youpee*, 519 U.S. 234, 242-43 (1997).
[42] 25 U.S.C.S. §464.
[43] Nicholas E. Flanders, *Native American Sovereignty and Natural Resource Management*, 26 HUMAN ECOLOGY 425, 430-31 (1998).
[44] *See, infra*, Part I.A.3.
[45] *See e.g.*, Carole Goldberg-Ambrose, *Public Law 280 and the Problem of Lawlessness in California Indian Country*, 44 UCLA L. Rev 1405, 1419-28 (1997).

Property Lost in Translation

2. *Kibbutzim*

Kibbutzim (again, plural for kibbutz) are agricultural communes that first developed in Israel a century ago. Traditionally, the kibbutz, as a collective, consisted of a small number of families.

Degania, the first kibbutz, was established in 1909 by several dozen Jewish residents of a part of the Ottoman Empire known as Israel or Palestine.[46] Kibbutzim (kibbutzim is plural for kibbutz) rapidly grew in popularity in the country and today, there are roughly 270 kibbutzim in Israel, with a total population of approximately 120,000 and land holdings of about 550,000 acres.[47]

Most of the founders of Degania were immigrants from Russia who had arrived in Ottoman Israel/Palestine in the late nineteenth century, and they were strongly influenced by the socialist political movements that were popular at the time in Russia and, in particular, the Russian Jewish community.[48] They established the kibbutz as an agricultural commune. Members of the kibbutz were expected to transfer personal assets to the kibbutz upon joining it. Thus, the kibbutz itself owned not only the land, but all personal property.[49] Thereafter, members were to work the land and perform all other tasks necessary for maintenance of the kibbutz. All decisions were made by the entire membership of the kibbutz, which would gather in the dining hall and debate issues until resolution.[50] The kibbutz was responsible for providing members with use rights to living quarters and living supplies, while maintaining full ownership for itself.[51]

Traditional kibbutz life was austere. Kibbutz members were traditionally rotated through jobs so that members would move

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[46] *See* Yossi Katz, *Agricultural Settlements in Palestine, 1882-1914*, 50 JEWISH SOC. STUD. 63, 75-76 (1988).

[47] THE KIBBUTZ MOVEMENT 6 (kibbutz.org.il ed.), *available at* http://www.kibbutz.org.il/tnua/dover/dafdefet_engl.pdf.

[48] Melford E. Spiro, *Utopia and its Discontents: The Kibbutz and its Historical Vicissitudes*, 106 AM. ANTHROPOLOGIST 556, 557 (2004).

[49] *See* Ran Abramitzky, *Lessons from the Kibbutz on the Equality-Incentives Tradeoff*, 25 J. ECON. PERSP. 185, 185 (2011) (noting that a ban on private property was among the defining characteristics of the Kibbutz). In general the land "ownership" of the kibbutz actually consists of a long-term leasehold from the state of Israel or the Jewish National Fund. On land ownership in Israel, *see* Elia Werczberger & Eliyahu Borukhov, *The Israel Land Authority: Relic or Necessity* 16 LAND USE POLICY 129 (1999).

[50] *See, e.g.*, Richard D. Schwartz, *Democracy and Collectivism in the Kibbutz*, 5 SOCIAL PROBLEMS 137, 141-45 (1958).

[51] *See, e.g.*, BRUNO BETTLEHEIM, THE CHILDREN OF THE DREAM 82 (1969); SPIRO, *supra* note 48, at 561.

through all the jobs on the kibbutz, from accounting to dishwashing.[52] Children were removed from their parents and raised separately and communally.[53] Clothing was simple and provided by the kibbutz.[54] Members were given a small allowance for basic needs, unconnected to the work they performed.[55] Kibbutz life was animated by an ideology of radical equality, patriotism, Marxism, romantic attraction to "working the land" and self-sacrifice. Societally, kibbutz members were viewed in Israeli society as both highly patriotic and as salt of the earth; they were traditionally over-represented in the most demanding and dangerous army units.[56] In the early years of the state, kibbutzim enjoyed rapid growth, growing to 67,550 members and 214 kibbutzim by 1950.[57] However, by the 1960's, the rapid growth began to stall.[58]

In the 1980's, changes in Israeli society began to be felt in the kibbutz. Parents were no longer willing to allow their children to be raised collectively; as a result kibbutzim permitted parents to raise their children in their own residential units within the kibbutz.[59] Even so, kibbutzim came under pressure from the younger generation. Grown children would depart the kibbutz for studies or travel, never to return.[60] Meanwhile, those who remained on the kibbutz would often be attracted to employment opportunities outside the kibbutz. Such members would either be frustrated at the duties they had to perform in the kibbutz or find themselves shirking kibbutz duties in favor of outside employment.[61] Some aging members found their

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[52] See Tal Simons & Paul Ingram, *Enemies of the State: The Interdependence of Institutional Forms and the Ecology of the Kibbutz* 1910-1997, 48 ADMIN. SCI. Q. 592, 593 (2003).

[53] Sharon L. Maital & Marc H. Bornstein, *The Ecology of Collaborative Child Rearing: A Systems Approach to Child Care on the Kibbutz*, 31 ETHOS 274, 277 (2003).

[54] SPIRO, *supra* note 48, at 557.

[55] *Id.*; *See also* Bobby Turniansky & Julie Cwikel, *Volunteering in a Voluntary Community: Kibbutz Members and Voluntarism*, 7 VOLUNTAS: INT'L J. VOLUNTARY & NON-PROFIT ORG. 300, 302 (1996).

[56] SPIRO, *supra* note 48, at 559.

[57] THE ENCYCLOPEDIA OF THE ARAB ISRAELI CONFLICT: A POLITICAL, SOCIAL, AND MILITARY HISTORY 581 (Spencer C. Tucker ed. 2008).

[58] *See* Daniel Gavron, THE KIBBUTZ: AWAKENING FROM UTOPIA 6 (2000).

[59] Michael Palgi & Shulamit Reinharz, *Introduction: The Kibbutz at One Hundred: A Century of Crises and Reinvention* in ONE HUNDRED YEARS OF KIBBUTZ LIFE: A CENTURY OF CRISES AND REINVENTION 1, 8 (Michael Palgi & Shulamit Reinharz eds. 2011).

[60] GAVRON, *supra* note 58, at 6.

[61] RAYMOND RUSSELL, UTOPIA IN ZION: THE ISRAELI EXPERIENCE WITH WORKER COOPERATIVES 169 (1995).

ideological preferences changing against communal living; and while they wished to continue to live on the kibbutz, they no longer shared its collectivist ideals.[62] Many of these changes were reflective of larger changes in Israeli society away from a centrally-controlled economy toward free enterprise.[63]

Not coincidentally, during the 1980's, the kibbutzim experienced a severe financial crisis, leading most kibbutzim to the verge of bankruptcy. The financial crisis of the kibbutzim in the 1980's was partially attributed to labor problems — both shortages and misallocations of the existing laborers — and partially to other financial mismanagement.[64] Ultimately, the kibbutzim were saved by a government bailout. The state forced creditor banks to forgive some outstanding loans, while others debts were directly paid by the state. Kibbutzim were forced to relinquish some assets, including substantial land holdings.[65]

Lacking a sufficiently large labor force to sustain the kibbutz, and given their financial difficulties, the kibbutzim started to diversify their economies and bring in temporary employees to fill their labor needs.[66] Gradually, the kibbutzim began a process of "privatization," in which membership in the kibbutz no longer entailed a complete relinquishment of private property or a thoroughly communal life. Members of the kibbutz were granted private property rights over their homes and other assets. Members today make their own employment arrangements, and simply pay fees for kibbutz services.[67] Kibbutz members receive payment for their work on the kibbutz, and such payments reflect the differing skill levels and demands of the employment tasks. Kibbutz-owned enterprises (not only agricultural businesses, but other kibbutz-owned ventures, such as small manufacturing plants) were also "privatized." While the kibbutz continues to own the businesses, their management has been

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[62] *See* Stephen Charles Mott, *The Kibbutz's Adjustment to Industrial and Ideological Decline: Alternatives for Economic Organization*, 19 J. RELIGIOUS ETHICS 151, 157 (1991).

[63] SIMONS & INGRAM, *supra* note 52, at 595

[64] SPIRO, *supra* note 48, at 559; YUVAL DROR, "NATIONAL EDUCATION" THROUGH MUTUALLY SUPPORTIVE DEVICES: A CASE STUDY OF ZIONIST EDUCATION 292 (2007).

[65] JO-ANN MORT & GARY BRENNER, OUR HEARTS INVENTED A PLACE: CAN KIBBUTZIM SURVIVE IN TODAY'S ISRAEL? 28 (2003); URI LEVITAN ET AL., *Introduction: The Kibbutz in Crisis*, in CRISIS IN THE ISRAEL KIBBUTZ: MEETING THE CHALLENGE OF CHANGING TIMES, xv (Uri Levitan et al. eds. 1998).

[66] SPIRO, *supra* note 48, at 560.

[67] *See id*. at 561.

professionalized, and the membership at large can no longer make operational and other business decisions.[68] In one particularly striking example, Kibbutz Shamir's corporation, Shamir Optical Industry, is listed on NASDAQ. These changes have been adopted at different paces in different kibbutzim, but the overall trajectory is clear.[69]

Today, privatization is nearly complete in the kibbutzim. In nearly all kibbutzim, while the kibbutz retains formal title over realty in the kibbutz, members have recognized protected rights to individual units. Kibbutz members no longer yield all outside property rights to the collective, and members therefore own pieces of realty outside the kibbutzim. Kibbutz members can and do use their personal assets to acquire chattel and realty to which they then hold sole title.[70]

Kibbutzim are recognized legal entities under the Cooperative Societies Ordinance, 1933.[71] As cooperative societies, kibbutzim benefit from favorable tax treatment, as well as other specialized rules related to its status as a separate legal personality.[72] Ultimately, this means that, as far as the state is concerned, kibbutzim own property rights that are similar to those owned by any other legal person in the state. However, within the kibbutz, the rights of members are established by the internal rules of the kibbutz, either by the governing documents or by ongoing decisions of the collective.[73] Consequently, member property rights are only enforceable outside the kibbutz to the extent permitted by internal kibbutz rules, and as contractual rights only.[74]

3. Sami

The Sami (or Saami) are a people indigenous to the Artic circle in an area called Sapmi—northern Scandanavia (Norway, Sweden and

[68] *See, e.g.*, ELIEZER BEN RAFAEL, CRISIS AND TRANSFORMATION: THE KIBBUTZ AT CENTURY'S END 110 (1997).
[69] AYALA CNAAN, HOLY LAND OF ALIENS: FORMAL GOVERNANCE MECHANISMS IN ISRAELI ALTERNATIVE COMMUNITIES, 69-73 (2007).
[70] SPIRO, *supra* note 48, at 561.
[71] RUSSELL, *supra* note 61, at 220; JOSHUA MURAVCHIK, HEAVEN ON EARTH: THE RISE AND FALL OF SOCIALISM 335 (2003).
[72] *See, e.g.*, GAVRON, *supra* note 58, at 220; MURAVCHIK, *supra* note 71, at 335.
[73] T.M.S. EVENS, TWO KINDS OF RATIONALITY: KIBBUTZ DEMOCRACY AND GENERATIONAL CONFLICT 40-41 (1995).
[74] ENCYCLOPEDIA OF COMMUNITY: FROM THE VILLAGE TO THE VIRTUAL WORLD 728 (Karen Christensen & David Levinson eds. 2003).

northern Finland) as well as the Kola peninsula in Russia.[75] In the past, the Sami were often referred to as "Lapps" or Laplanders" and their region "Lapland," but these latter terms have fallen out of usage and are now considered pejorative.[76] Physical remnants of Sami inhabitation of the Sapmi area have been found from as far back as 10,000 B.C.[77]

The four states over which Sapmi territory is now spread extended their sovereignty into the area relatively recently. The area of Sapmi incorporated into Norway is called Finnmark.[78] While Norway traces its statehood to 872, Finnmark only gradually became part of Norway starting in 1613 (the coastal areas) and finishing in 1826, with the establishment of a border with Russia.[79] Obviously, Sami were living in and using the land long before Norway extended its sovereignty into the area.

A 1775 distribution of land by the state is considered the root of title in the Finnmark area of Norway.[80] Large areas were excluded from this process of distributing private title and were reserved as state land. Starting in 1863, Norway established strict guidelines for transferring state land to private purchasers.[81] While Sami were eventually permitted to purchase land, this was often conditioned on "Norwegianization," i.e., adoption of a Norwegian name, and demonstration of facility in the Norwegian language.[82] While some Sami assimilated and acquired land, others refused to do so, and found their customary land holdings were owned by the state.[83]

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[75] *See, e.g.*, Torbjörn Josefsson *et al.*, *Quantifying Sami Settlement and Movement Patterns in Northern Sweden 1700-1900*, 63 ARCTIC 141, 142 (2010).
[76] BARBARA HELEN MILLER, CONNECTING AND CORRECTING: A CASE STUDY OF SAMI HEALERS IN PORSANGER 1 (2007).
[77] VALERIE ALIA, THE NEW MEDIA NATION: INDIGENOUS PEOPLES AND GLOBAL COMMUNICATION 63 (2010).
[78] GARTH NETTHEIM, ET AL., INDIGENOUS PEOPLES AND GOVERNANCE STRUCTURES: A COMPARATIVE ANALYSIS OF LAND AND RESOURCE MANAGEMENT RIGHTS 210 (2002).
[79] *Id.*
[80] *See* LYDIA HEIKKILÄ, REINDEER TALK: SÁMI REINDEER HERDING AND NATURE MANAGEMENT 97 (2006).
[81] *See, e.g.*, SALLY JEANRENAUD, COMMUNITIES AND FOREST MANAGEMENT IN WESTERN EUROPE: A REGIONAL PROFILE OF THE WORKING GROUP ON COMMUNITY INVOLVEMENT IN FOREST MANAGEMENT, 20 (2001); JOSEPH MIRE, NORWAY: OFFICIAL PUBLICATION FOR THE PARIS EXHIBITION 1900, 308 (1900).
[82] *See* MONIKA ŽAGAR, KNUT HAMSUN: THE DARK SIDE OF LITERARY BRILLIANCE 165 (2009).
[83] *Id.* at 164-65; *see also* CHRISTIAN MOMBERGER, ARCTIC REGIONS, THE SÁMI AND GLOBAL CLIMATE CHANGE DEBATE: COLLECTION OF ESSAYS AND PAPERS WRITTEN 2001/2002 WITHIN THE ARCTIC STUDIES PROGRAM 19-20 (2008).

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Outside the formal Norwegian system, the Sami have had longstanding customary reindeer pasture rights. These customary rights included defined fishing areas, hunting grounds, gathering places, trapping lines and specific reindeer pastures. Boundaries traditionally were set by tradition and memorialized verbally.[84] These customary rights were considered outside the chain of title in Norway, and thus had no legal expression.

The past three decades have seen a change in attitudes towards Sami land claims. The Norwegianization policy has been abandoned, and some powers have been devolved to a representative Sami body.[85] As well, ownership over state lands has been transferred to a new governmental body that is expected to cooperate better with Sami needs.[86] These changes have been driven both by changing perceptions of the justice of Sami claims, and the belief that some changes were required by changing international norms to which Norway had subjected itself.[87]

The most important of these changes has resulted in Norway creating public easements over lands in Finnmark (both publicly and privately owned) for the benefit of Sami. Reindeer pasture area is reserved for Sami reindeer herding; Sami also have herding rights in "concession areas," but those rights are shared with other Norwegians.[88] The Reindeer Herding Act of 1978 reserves Sami herding rights to those of a Sami family, though the familial connection is not precisely defined.[89] Additionally, to enjoy the Sami herding rights, the claimant must have had a parent or grandparent whose main occupation was reindeer herding.[90] The herding rights are formalized in operational permits, which may be passed *inter vivos* or upon death to close family relations.[91] Herding rights include not only

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[84] Tom Svennson, *The Attainment of Limited Self-Determination* in LAW AND ANTHROPOLOGY, VOL. 8 267, 272 (René Kuppe & Richard Pots eds. 1996).
[85] JÉRÉMIE GILBERT, INDIGENOUS PEOPLES' LAND RIGHTS UNDER INTERNATIONAL LAW: FROM VICTIMS TO ACTORS 236 (2006).
[86] *Id*. at 237.
[87] *Id.*
[88] EVA KARINA & HELENA KESKITANO, CLIMATE CHANGE AND GLOBALIZATION IN THE ARCTIC: AN INTEGRATED APPROACH TO VULNERABILITY ASSESSMENT 99 (2008).
[89] Scott M. Williams, *Tradition and Change in the Sub-Arctic: Sámi Reindeer Herding in the Modern Era*, 75 SCANDINAVIAN STUD. 229, 244 (2003).
[90] *Id.*
[91] *See* Margaret Anne Stephenson, *Sámi Lands and Indigenous Australian Lands: Some Comparative Perspectives*, in FIRST WORLD, FIRST NATIONS: INTERNAL COLONIALISM AND INDIGENOUS SELF-DETERMINATION IN NORTHERN EUROPE AND AUSTRALIA 168, 175 (Günther Minnerup & Pia Solberg eds. 2011).

reindeer grazing but also the right to swell on the land, build necessary structures, trap and fish, gather wood, and other uses of the land.[92]

The resulting property system is a curious blend of state law and local Sami customs. Formal property rights depend upon the state titling system and usage rights created under state law. However, state law carves out ethnically-limited property rights for Sami, facilitating the preservation (or creation) of localized property rules within Sami communities. Additionally, the formal rights are ethnically bound, creating a localized property system partially divorced from the wider property law within the jurisdiction.

B. "Unofficial" Localized Property Regimes

1. Favelas

In sharp contrast to kibbutzim, *favelas* in Brazil were not conscious creations in expression of a romantic ideology. *Favela* is a Porteguese term for slum, and *favelas* are generally described as "shanty towns."[93] The *favelas* were created primarily during the twentieth century as a result of rural emigration to the cities.[94] Favela dwellers were traditionally squatters. That is, *favela* dwellers had no formally recognized legal rights to the land on which they lived; rather, they generally took up residence on either private or public lands.[95] In other cases, the *favela* residents did not trespass on private or public landholdings, but they still failed to acquire formal property rights. For instance, in many cases, *favelas* arose after the "purchase" of irregular lots of land, whose demarcation could not be recognized under existing law.[96] In such cases, the seller wished to sell land and the buyers wished to buy, but state law would not recognize the sale because the lot size did not fit within titling rules. Whether arising due to squatting or unlawful subdivision of land, *favelas* developed socially respected property norms notwithstanding the lack of formal property rights. The *favelas* recognized dwellers' informal property rights to their homes, as well as the authority of complex community

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[92] *Id.* at 171-72.
[93] *See* O'Hare, *supra* note 3, at 61.
[94] MARTIN MOWFORTH ET AL., TOURISM AND RESPONSIBILITY: PERSPECTIVES FROM LATIN AMERICA AND THE CARIBBEAN 186 (2007).
[95] O'Hare, *supra* note 3, at 62.
[96] *Id.*

institutions.[97]

Favelas date back to a settlement on a hill in Rio de Janeiro called Morro da Providência, founded by soldiers returning from a civil war (Guerra de Canudos, 1895-1896).[98] The soldiers had not yet been paid, and they did not purchase the land on which they built their new settlement, Morro de Favella. Subsequent urban squatting settlements earned the name "*favela*" in imitation of the soldiers' community, both for the practice of squatting and for the low quality of land and housing.[99] As the urban settlements became more popular, the term gained formal acceptance, even being used as category in the Brazilian census in 1950.[100] Favelas grew explosively from the 1940's to the 1970's due to increasing urbanization.[101] Today, Rio de Janeiro is home to more than 500 *favelas*, comprising approximately one third of the city's population.[102] *Favelas* continue to grow at a faster pace than the population of the city as a whole.[103]

Strikingly, many *favelas* in Rio de Janeiro are located on hillsides, giving *favelas* scenic views—particularly when compared to the obstructed views of more affluent housing in the valleys below—but also exposing them to soil erosion, mudslides and collapse.[104] Favelas are better known for their high crime rates and substandard

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[97] *See* Peter Lloyd-Sherlock, *The Recent Appearance of Favelas in Sao Paolo City: An Old Problem in a New Setting*, 16 BULL. LATIN AM. RES. 289, 292 (1997); PETER HALL & ULRICH PFEIFFER, URBAN FUTURE 21: A GLOBAL AGENDA FOR 21ST CENTURY CITIES 254 (2000).

[98] ADRIAN PARR, HIJACKING SUSTAINABILITY 128 (2009); *cf.* Greg O'Hare & Michael Barke, *The Favelas of Rio De Janeiro: A Temporal and Spatial Analysis*, 56 GEOJOURNAL 225, 232 (2002) (stating that Morro da Providência was established in 1898 by soldiers returning to Rio de Janeiro from war, who were unable to afford shelter).

[99] *Favelas* in BRAZIL TODAY: AN ENCYCLOPEDIA OF LIFE IN THE REPUBLIC 253 (John J. Crocitti & Monique Vallance eds. 2012).

[100] Fred B. Morris & Gerald F. Pyle, *The Social Environment of Rio De Janeiro in 1960* 47 ECON. GEOGRAPHY 286, 288 (1971).

[101] JANICE E. PERLMAN, THE MYTH OF MARGINALITY: URBAN POVERTY AND POLITICS IN RIO DE JANEIRO 5 (1976).

[102] *2010 Census: 11.4 Million Brazilians (6.0%) Live in Subnormal Agglomerates*, INSTITUTO BRASILIERO DE GEOGRAFIA E ESTATÍSTICA (Dec. 21, 2011), http://www.ibge.gov.br/english/presidencia/noticias/noticia_visualiza.php?id_noticia=2057&id_pagina=1.

[103] Janice E. Perlman, *Marginality: From Myths to Reality in the Favelas of Rio de Janeiro* in URBAN INFORMALITY: TRANSNATIONAL PERSPECTIVES FROM THE MIDDLE EAST, LATIN AMERICA, AND SOUTH ASIA 104, 108 (Ananya Roy & Nezar Alsayyad eds. 2004).

[104] O'Hare & Barke, *supra* note 98, at 229 ("In Rio (as in Salvador) many favela sites on hillsides close to the city centre are unsuitable for commercial development and therefore have not been cleared wholesale by the city authorities.").

living conditions. While *favelas* are complete communities, with local businesses such as groceries, they have limited access to basic utility services such as plumbing or electricity. In most *favelas*, sewage runs through the streets. The 1950 census criteria defined *favelas* not only by the absence of legal title, but also by low quality housing and absence of paved streets and public services such as plumbing, sanitation, water, electricity and telephone.[105]

Over the years, *favelas* have been subject to numerous reform efforts. Controversial "slum clearance" projects, particularly in the 1970's aimed at reclaiming the land for its private and public owners.[106] These projects, in some cases accompanied by efforts to provide public housing for the slum dwellers, are widely viewed as failures.[107] In some cases, after an area was cleared, new *favelas* grew up on the site of the old ones.[108] In many cases, expelled *favela* dwellers soon found themselves living in different *favelas*.[109] Simply put, the demand for the *favela*-style housing remained high, while the supply in formal market remained low, leading consumers to the low-cost alternative of squatting in a new location. Other reform efforts have focused on arrangements for legalizing land tenure for dwellers while upgrading the physical quality of neighborhoods.[110] In recent years, both strategies have been tried by various municipalities in Brazil. To date, progress has been limited.[111] *Favelas* continue to grow.[112]

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[105] Morris & Pyle, *supra* note 100, at 288

[106] O'Hare & Barke, *supra* note 98, at 234 ("With the help of funds from the US Alliance for Progress programme, between 1962 and 1974, 80 squatter settlements were compulsorily (sometimes violently) removed…These processes gained in intensity after the 1964 military coup when squatter areas adjacent to upper-income neighbourhoods and areas scheduled for industrial development began to be eradicated (Parmuk and Cavallieri, 1998).").

[107] O'Hare, *supra* note 3, at 63.

[108] MARSHALL C. EAKIN, BRAZIL: THE ONCE AND FUTURE COUNTRY 107 (1998) ("City planners tried to raze the favelas and relocate the poor in government housing, which was often miles from the inner city. By the 1970s, it had become clear that this process was not working and that the tidal wave of poor migrants had overwhelmed any pretense of relocation.").

[109] VANESSA N. FRANCIS, COMPARATIVE ANALYSIS OF CONTEMPORARY URBAN HOUSING INITIATIVES IN SOUTH AMERICA: CARACAS, RIO DE JANEIRO, AND SAO PAOLO 31 (2008).

[110] *See* O'Hare & Barke, *supra* note 98, at 238 (describing a reform program whereby favelados are given title to their homes).

[111] O'Hare, *supra* note 3, at 62, 73.

[112] *Cf.* O'Hare & Barke, *supra* note 98, at 238 (describing a recent trend of increased socio-economic diversification of favelas, whereby "middle class and lower middle class households have increasingly begun to move into favelas").

The reason for *favelas'* continued popularity remains a matter of controversy. Evidently *favelas* provide migrants to the large cities goods that are not available in the formal housing market: cheap, conveniently located housing, even if of inferior quality and provided with inferior services. The reason for this lack may be excessive regulation of the quality and pricing of housing in the formal market.[113]

2. *Other "Unofficial" Localized Property Regimes*

Although we have chosen to focus on a small number of large-scale localized property regimes, readers should be aware that there are many other examples of localized property regimes that affect our lives. Two of the best known regimes that have been the subject of academic study include the norms of cattle trespass in Shasta County, as described in Robert Ellickson's classic ORDER WITHOUT LAW[114] and Erving Goffman's account of property arrangements in mental asylums.[115]

Robert Ellickson's famous book ORDER WITHOUT LAW contains, among other features, a fascinating account of the allocation of grazing grounds in Shasta County, California. Tellingly, Ellickson discovered that the formal legal classification of land as either open or closed to free grazing is highly irrelevant in Shasta County as it was largely replaced by a set of local norms and understandings that are modeled on principles of good "neighborliness."[116]

Erving Goffman's account of property arrangements in mental asylums is one of the most moving property stories one can find. Goffman reports that upon checking into an asylum, patients are stripped of all their personal belongings. Thereafter, they embark upon a long journey of property collection. Goffman discusses in great detail the process by which different items are appropriated and stored. But, perhaps, the most interesting aspect of this property regime is that the staff largely respects the norms that arise among patients and under most circumstances cooperate with them.[117]

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[113] O'Hare, *supra* note 3, at 65-66; *see also* MARIA TERESA XAVIER SOUZA, THE EFFECT OF LAND USE REGULATION ON HOUSING PRICE AND INFORMALITY: A MODEL APPLIED TO CURITIBA, BRAZIL 11-12 (2009).

[114] ROBERT C. ELLICKSON, ORDER WITHOUT LAW (1991).

[115] ERVING GOFFMAN, ASYLUMS: ESSAYS ON THE SOCIAL SITUATION OF MENTAL PATIENTS AND OTHER INMATES (1961).

[116] ELLICKSON, *supra* note 114, at 40-65.

[117] GOFFMAN, *supra* note 115, at 244-54.

Property Lost in Translation

Other localized property regimes have not won such careful academic attention. Localized property arrangements are ubiquitous in urban life, but few have been examined systematically. As we noted,[118] Richard Epstein famously researched the localized property regime covering parking places on public streets,[119] but there are many other localized regimes to consider. Think, for example, of the rules that govern using playground facilities or ball fields. Some areas have formal rules requiring users to sign up for use in fixed time slots. Disputes often arise when a users deviate from the expected time limits. Other areas allow allocation of the space but on a more informal basis. Persons may arrive early and "stake a claim" on the space until other users arrive. In yet other settings, there is no real principle of organization and a combination of deference, aggressiveness and priority in time govern. For examples, of this last phenomenon, think of seating in subways or parking in shopping malls.

Localized property regimes also govern the allocation of space in public squares to street performers. Different cities have adopted different priority rules to determine how space on sidewalks, parks and plazas is to be allocated among street performers. Some cities have registration systems which allow street performers to establish temporal priority.[120] In others, no advance registration is possible and priority is established by first occupancy.[121] In yet other cities the allocation may be based on seniority.[122] Whatever the norm is, new artists who wish to perform must comply with it, even though they did not partake of the decision to adopt it.

Yet another localized property system strikes even closer to home—at least as far as the authors are concerned—as it governs the allocation of office space to law school faculty. This example is particularly interesting as it involves an informal property allocation among individuals who are trained in formal law, yet it gives rise to

[118] *Supra,* at Part I.
[119] Richard A. Epstein, *The Allocation of the Commons: Parking on Public Roads* 31 J. LEG. STUD. S515, S521-43 (2002).
[120] *See e.g.,* DAVID GRAZIAN, BLUE CHICAGO: THE SEARCH FOR AUTHENTICITY IN URBAN BLUES CLUBS 225 (2005); *Street Performances in New York*, 411 NEW YORK, (July 16, 2007), http://411newyork.org/guide/2007/07/16/street-performances-in-new-york/.
[121] Aram Parrish Lief, Musicians Who Busk: Identity, Career, and Community in New Orleans Street Performance 59 (May 16, 2008) (unpublished M.S. thesis, University of New Orleans) (archived by University of New Orleans), *available at* http://scholarworks.uno.edu/cgi/viewcontent.cgi?article=1683&context=td.
[122] *Id.* at 57.

very few disputes (although it is not impossible that it generates discontent). Interestingly, there is variance among schools both with respect to the allocation rules and the termination rules. In some schools, office space is allocated based on seniority. However, the definition of seniority may differ from school to school. In some schools, seniority is calculated based on the year of one's first law degree. In other schools, seniority may be based on one's tenure in the institution—that is, the date on which the member joined the faculty. Still in other institutions, office space may be allocated based on merit as measured by scholarly productivity or teaching success. As for termination, in almost all schools (as far as we know) once an office space has been allocated to a member it is hers until retirement, unless she voluntarily decides to relinquish her rights to the space. Yet, in a very small minority of schools, decline in performance may cost one one's office space.

B. The Attractions of Localized Property Systems

Why do localized property systems arise?

Simply put, communities or groups of individuals may need or want acceptable arrangements for allocating entitlements to assets that do not match the state-wide arrangements. We offer four reasons why such localized property rights might arise, although we do not claim that the list is comprehensive. Additionally, we observe that in many cases, more than one reason may apply.

First, the formal property system may be too rigid, or restrictive, for certain individuals. They may desire more flexible, or adaptable, arrangements. Consider the case of family members living in the same household, or of roommates. Given their ongoing relationships, family members or roommates may find the costs of negotiating rights for any individual item to be relatively low. They may therefore prefer to avoid the strictures of the formal legal system and opt, instead, into a less formal system of norms and property arrangements. Indeed, they may consider the reliance on state-ordered property rights to undermine the network of negotiated arrangements governing the household. Stated otherwise, in many situations of ongoing relationships, the transaction costs of the informal system will be lower than the transaction costs entailed in formal definition of rights through the legal system.

Second, the formal legal system may adopt a property regime that is inherently inconsistent with the needs of the group. In particular, this may happen when the ideology of a certain group rejects the

standard allocation and definition of private property rights. This is what happened in the case of the kibbutzim in Israel. The state adopted a system of private property rights that was typical for Western states, while the kibbutzim were founded on the basis of a radical collectivist ideology that rejected any private property.[123] In economic terms, we might say that the local property regime gives its participants psychological and ideological utility that adequately compensates for the loss of utility entailed in having property rights that are unrecognized in the statewide property system.

Third, the closed list (*numerus clausus*) of property rights may simply not contain certain property options desired by members of various groups. After all, the enumeration of property rights is finite, which means that certain arrangements will not be included in it.[124] This reason perhaps best explains the rules that govern various common interest communities, such as subdivisions with condominium ownership.[125] Property law has traditionally provided a very small list of rules for common owners and for neighbors. Persons buying condominium units will want to govern many other items left out of the default standard property rules. While condominiums can anchor some of their rules in standard property instruments, such as covenants, they may also find it advantageous to leave other rules to management from time to time. Property forms, in other words, may prove to have positive utility in local settings, even though the law may not recognize their utility across society.

Fourth, and finally, satellite rules that attend the property system may lead groups to avoid the property system in order to avoid the satellite rules. The clearest example of this is the system of satellite land use laws that circumscribe property rights over realty. While the legal system may offer a satisfactory menu of property choices in realty, would-be consumers may find that the ability to shape the property is so hampered by land use rules, construction regulations, or other limitations on owners' ability to utilize their realty, that the

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[123] *See supra* Part I.A.2.

[124] For a discussion of the *numerus clausus* rule in property law, *see* Thomas W. Merrill & Henry E. Smith, *Optimal Standardization in the Law of Property: The Numerus Clausus Principle*, 110 YALE L. J. 1 (2000); Nestor M. Davidson, *Standardization and Pluralism in Property Law*, 61 VAND. L. REV. 1597 (2008); Henry Hansmann & Reinier Kraakman, *Property, Contract, and Verification: The Numerus Clausus Problem and the Divisibility of Rights*, 31 J. LEGAL STUD. 373 (2002).

[125] For a discussion of the property forms used by condominiums and other common interest communities, *see* Michael A Heller, *The Boundaries of Private Property* 108 YALE L.J. 1163, 1183-85 (1999).

consumers will readily forego the benefits of state-recognized property ownership in order to avoid the limitations. As the case of the *favelas* shows, this need not be a conscious choice. The licit marketplace for realty may be sufficiently restricted by the satellite limitations in land use that a large secondary market develops for realty ownership that is recognized only by the illicit local property system.

II. TRANSLATING LOCALIZED PROPERTY

Our goal in this part is to explore the interaction between localized property arrangements and the formal property system. As we show, all localized property arrangements give rise to the challenge of translation—the process by which localized rights are incorporated into the state system.

Although there are strong reasons for creating localized property regimes, these reasons do not eliminate the desire to use assets in interacting with the larger society. The need for translation arises whenever a person who possesses localized property rights seeks to make use of them outside the group or community in which they were recognized. To illustrate, consider a Native American individual who wishes to use her tribal property as collateral for a loan from a commercial bank. Can she do it?[126] A similar question arises when a members of the Sami seeks to continue to use traditional pasture lands after they have been subjected to state ownership,[127] or when a kibbutz member decides to start a new life in the city and wishes to take several personal articles with her.[128]

In this Part, we analyze the parameters that affect the desirability of localized property arrangements and their value to their subjects.

[126] *See e.g.*, Marceau v. Blackfeet Housing Authority, 540 F.3d. 916, 936 (9th Cir. 2008). *See also* Matthew Atkinson, *Red Tape: How American Laws Ensnare Native American Lands, Resources, and People*, 23 OKLA. CITY U. L. REV. 379, 399 (1998) ("Indian land, which is held in "trust" for them by the United States, cannot be used as collateral to obtain loans. This is but one obstacle to Indian private entrepreneurship or initiative.").

[127] For discussion, see Øyvind Ravna, *The Process of Identifying Land Rights in Parts of Northern Norway: Does the Finmark Act Prescribe an Adequate Procedure Within the National Law*, 3 Y.B. POLAR L. 423 (2011).

[128] In C.A. 5747/08 Rotem v. Kibbutz Sdot Yam (Nevo), the Israeli Supreme Court ruled that beneficiaries of a testamental gift of all the testratrix's possessions could claim no rights in her house in the kibbutz because the kibbutz owned all rights in the realty, and the procedure in which the kibbutz "allocated" the house to the testatrix merely granted her temporary use rights.

We demonstrate that in the world of property, the sustainability of localized property rights critically depends on their translatability. Lack of translatability of property rights lowers the value of those rights, and conversely, greater translatability increases the value of those rights.

Consider, for example, the unregistered rights of the dwellers in the *favelas* in Rio de Janeiro, Brazil. These rights are not formally recognized by the Brazilian legal system and are only recognized by fellow dwellers.[129] Consequently, rightholders can transfer their rights only to other dwellers, but not to outsiders. A rightholder in a *favela* cannot borrow money from a bank on the security of her landholding, and she cannot sell her rights to someone outside the *favela*. [130] These limitations on the property's use and transferability undermine the value of the property right, and make the *de facto* rights of *favela* dwellers lower than comparable rights that are recognized formally.[131] In the case of kibbutz members, the result can be even more extreme. In a notable Israeli case, the daughter of a deceased kibbutz member was left homeless because her late mother's possessions all formally belonged to the kibbutz.[132]

A. The Costs of Translation

Translation problems arise when persons with localized property rights to an asset desire to use the asset outside the locality in which the localized property rights are recognized. This desire may be created by the decision of the asset owner to leave the community. Alternatively, the owner may wish to remain in the community, but wish only to remove the asset from it. Or, perhaps, the asset owner may seek to keep the asset physically within the community, but to

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[129] *See* MICHAEL GEIGER DONOVAN, AT THE DOORS OF LEGALITY: PLANNERS, FAVELADOS AND THE TILTING OF URBAN BRAZIL 322 (2007) ("With high transaction costs, a distrust of government intervention, and increasing segregation, there are signs that informal settlements are developing their own property registries independent of government authority… [In one informal settlement, t]welve thousand homeowners [own informal] title for the equivalent of one dollar each although it has no official recognition.").

[130] *See* HERNANDO DE SOTO, THE MYSTERY OF CAPITAL 56 (2000) ("The lack of legal property thus explains why citizens in developing and former communist nations cannot make profitable contracts with strangers cannot get credit, insurance, or utilities services: They have no property to lose…And commitment is better understood when backed up by a pledge of property, whether it be a mortgage, a lien, or any other form of security that protects the other contracting party.").

[131] For an extensive examination of this phenomenon, see *id.* at 39-67.

[132] C.A. 5747/08 Rotem v. Kibbutz Sdot Yam.

use the asset in some way outside the locality (e.g., by mortgaging or otherwise using the asset as security for a loan). At any rate, the moment the asset is used outside the locality, the localized rights have to be translated into rights in the wider jurisdiction.

As we will show presently, the ability to translate the localized property rights into rights recognized by the wider jurisdiction is extremely valuable. Translatable property rights are more readily transferred and used than localized rights, and it is easier to enjoy value (by use, transfer, exclusion, or otherwise) over broadly recognized property rights than narrowly recognized ones.

However, translation is not costless. Three kinds of costs generally accompany any translation of localized property rights.

Perhaps the most obvious type of cost is *information costs*. Henry Smith has written about such costs in the context of community customs,[133] but such costs attend all localized property systems. Information about the local rights, ownership and the asset must be transmitted to the larger jurisdiction. Acquiring expertise in these matters requires gathering evidence and investing time. The more idiosyncratic the localized property system, the greater the informational costs will be in translating localized rights to the wider world.

Second, and more importantly, owners will encounter *incompatibility costs*. Generally, the precise rights created by the localized property system are not recognized by the wider jurisdiction. Alternatively, they can be enforced only if described in imprecise terms (e.g., enforcing kibbutz property rights only as

[133] Henry Smith, *Community and Custom in Property*, 10 THEORETICAL INQUIRIES IN LAW 5 (2008). Others written extensively on custom, its development and its potential place in legal ordering. *See, e.g.,* Lisa Bernstein, *The Questionable Empirical Basis of Article 2's Incorporation Strategy: A Preliminary Study*, 66 U. CHI. L. REV. 710, 714 (1999); BRUCE L. BENSON, THE ENTERPRISE OF LAW: JUSTICE WITHOUT THE STATE 30–36 (1990); Robert D. Cooter, *Decentralized Law for a Complex Economy: The Structural Approach to Adjudicating the New Law Merchant*, 144 U. PA. L. REV. 1643, 1647 (1996); Paul R. Milgrom, Douglass C. North & Barry R. Weingast, *The Role of Institutions in the Revival of Trade: The Law Merchant, Private Judges, and the Champagne Fairs*, 2 ECON. & POL. 1, 2 (1990); Emily E. Kadens, *The Myth of the Customary Law Merchant*, 90 TEXAS L. REV. 1153 (2012). Insofar as the custom is understood as creating a parallel legal order for merchants in a certain line of business, it can be seen as a localized property system, to which our analysis applies.

contractual rights, or as a partnership agreement).[134] Consequently, certain subtleties in the local rights property will be lost; to the degree that those subtleties accurately served local needs, this may result in a loss to net welfare. The most extreme case of incompatibility costs arises where there are open contradictions between the rights within the localized property system and those of the state system. For instance, while residents "own" land in *favelas* under the localized property system, in many cases that land already belongs to others under the state system.[135]

Third, and finally, there are potential *enforcement costs*. Those rights that are compatible with the larger outside property system must be enforced in that outside system. This cost may be large or small, depending on the comparable costs of enforcement within the localized system. There may even be cases where outside enforcement proves cheaper than enforcement within the localized property system.

Both information costs and incompatibility costs grow as the similarity between the localized property rights and those of the wider jurisdiction's property rights diminish. The more unfamiliar the local property rights, the greater the information costs will be in any translation. Likewise, the larger the gap between the localized property right and the rights recognized by the larger jurisdiction, the greater the likelihood of lost subtleties and the higher the incompatibility costs will be.

One way of describing the problem of translation is through the prism of transaction costs. In a world with perfect information about rights, and infinitesimal costs of contracting, the gaps between localized property regimes and wider state property systems would be irrelevant. Any person who wanted to establish her localized property rights in the wider property system could costlessly let everyone know about the rights she wanted to protect, and contract costlessly with them to defend her rights.

As Coase reminded us, however, we do not live in a world

[134] *See* C.A. 5747/08 Rotem v. Kibbutz Sdot Yam (rejecting claimed property right in residence on grounds that members are restricted to contractual rights as expressed in the kibbutz regulations).
[135] Licia Valadares, *Popular Housing in Brazil: A Review* in HOUSING NEEDS AND POLICY APPROACHES: TRENDS IN THIRTEEN COUNTRIES 222, 225 (William Van Vliet, *et al.* eds. 1985); *Favela* in ENCYCLOPEDIA OF THE CITY 259 (Roger V. Caves ed. 2005); SOUZA *supra* note 113 at 12).

without transaction costs.[136] In the real world, costs always attend transactions. Property rights in the Coasian world are the baselines from which negotiations are conducted, but where transaction costs are sufficiently high, parties will never depart from the baseline.[137] In the locality within which the localized property regime prevails, local property is the baseline. But outside the locality, the baseline is the prevalent state-wide property regime. An owner of a localized property right who wishes to transact with others who do not recognize her right will have to face the costs of information, incompatibility and enforcement. For instance, she will have to educate others about the nature of her rights, their scope and their precise contours. The more idiosyncratic the localized are, the higher the cost of education. Of course, the holder of the localized right will have to repeat the process with every new individual with whom she wishes to transact. The more unfamiliar the right at issue is, the greater will be the expected number of interactions that rightholder will have to go through to consummate a transaction.

Even more troubling than the problem of education will be those of incompatibilities between legal forms and enforcement. Owners of localized property rights will have to convince persons outside the locality of the merits and value of the localized property right. Outside the locality, only those who voluntarily subject themselves to the localized property regime can be held to it. This means that rightholders or potential rightholders will have to negotiate with a wide variety of potential parties for the rights to maintain the rights' value. Consider, for example, a localized property right in a house in a kibbutz. If the kibbutz member goes to a bank to get a loan secured by a mortgage on the house, the bank's reluctance to issue the loan will not be assuaged simply by an explanation of the nature of the kibbutz member's rights in the house. The bank will also be concerned about its ability to realize gains from a foreclosure sale of the house in the event of default. While fellow kibbutz members will understand and

[136] R. H. Coase, *The Problem of Social Cost*, 3 J. L. & ECON. 1, 15 (1960) ("In order to carry out a market transaction it is necessary to discover who it is that one wishes to deal with, to inform people that one wishes to deal and on what terms, to conduct negotiations leading up to a bargain, to draw up the contract, to undertake the inspection needed to make sure that the terms of the contract are being observed, and so on. These operations are often extremely costly, sufficiently costly at any rate to prevent many transactions that would be carried out in a world in which the pricing system worked without cost.").

[137] *Id.* at 15-16 ("Once the costs of carrying out market transactions are taken into account it is clear that such a rearrangement of rights will only be undertaken when the increase in the value of production consequent upon the rearrangement is greater than the costs which would be involved in bringing it about.").

value the rights in the house, few persons outside the kibbutz will. This means that the bank's ability to recover funds from selling the house will rely on its ability to persuade potential buyers outside the kibbutz of the value of holding kibbutz-defined rights in the house. If, as is likely, prohibitive transaction costs prevent the bank from creating a large pool of potential buyers of the rights in the house, the bank will attach a small value to the mortgage. The security value of the house will have been largely lost in the attempt to translate the kibbutz-centered property rights to the outside world.

In some cases, the contradictions between the rights recognized within the localized property system and those between the state's property system will make the challenge even greater. Where a *favela* homeowner seeks a mortgage, the *favela* resident has to face all the challenges of the kibbutz resident, plus an additional one. Sometimes, the *favela* resident's localized property right relates to realty to which title already belongs to another party. As long as there is a non-trivial chance that the true owner's title may be asserted in the future, banks and other potential creditors must discount the value of the localized property interest. If the chances of a future assertion of title by the true owner are sufficiently high, the localized property right will be utterly unmarketable.

Hence, from a transaction costs perspective localized property arrangements can serve as lock in devices that make it harder for members of the relevant group to exit the group and move elsewhere. In that sense, they perform the same function as switching fees that are employed by cable and telephone companies to keep subscribers from switching to a different provider. In our case, however, the switching cost is not predetermined in advance by the provider as a price or penalty, but rather it is measured by the size of the incompatibility between the localized arrangement and the formal property system. The greater the incompatability, the greater the cost of switching. The example of the Kibbutz members in the early days of the movement provides the best illustration of this effect.[138]

B. Law and Network Effects

Another theoretical framework for understanding the challenges presented by translation may be found in the literature on network effects and technological standards.

[138] *See* Ran Abramitzky, *The Limits of Equality: Insights from the Israeli Kibbutz*, 123 Q. J. ECON. 1111, 1150-1151 (2008) (""This paper suggests ... that lock-in devices are required to make exit costly.").

Products and services that display network effects differ from other products and services in that their values tend to grow with the number of users.[139] The classic example is telephony.[140] A telephone apparatus is valueless for the first user as long as no one else has one. She cannot call anyone; nor can she receive calls. Once a second person purchases a phone, the phones have a modicum of value for both the subsequent purchaser and the first user. The two users can now converse by telephone, although the phone remains useless outside the network of two. As the number of telephone users grow, the value of the technology grows as well. Indeed, a telephone is most valuable when every person in the world has one (or several).[141]

Prima facie, industries that are characterized by network effects maximize their value when technological standards are uniform. It is easy to see why. The adoption of a uniform standard potentially creates the greatest interoperability, and it therefore maximizes value for users. Consequently, over time, industries that display network effects often tend to converge on a single standard.[142] Obviously, standardization comes at a cost. Standardization may thwart competition and stifle dynamic efficiency.[143] The converged-upon standard may not be the best technology. A technology's initial market advantage (due to superior advertising, for instance), may be enough to compensate for its technological inferiority.[144] The adoption of a single proprietary technology creates a barrier to entry for other firms, and may yield a monopoly position for the standard's

[139] Michael L. Katz & Carl Shapiro, *Systems Competition and Network Effects*, 8 J. ECON. PERSP. 93, 94 (1994) (defining markets exhibiting "network effects" as ones where "the value of membership to one user is positively affected when another user joins and enlarges the network").
[140] *Id.* (describing the telecommunications market as a classic example of a market exhibiting "network effects").
[141] *Id.*
[142] *Id.* at 105 ("In markets with network effects, there is natural tendency toward de facto standardization, which means everyone using the same system.").
[143] *Cf. id.* at 105-06 (describing that while network effects tend to favor standardization, product differentiation and consumer heterogeneity may result in multiple products co-existing in a market exhibiting network effects).
[144] *Id.* at 107 (describing that a "small, initial advantage" by a competitor in a market with network effects may be enough "to parlay its advantage into a larger, lasting one"); Stanley M. Besen & Joseph Farrell, *Choosing How to Compete: Strategies and Tactics in Standardization*, 8 J. ECON. PERSP. 117, 122 (1994) (stating that "establishing a large installed base quickly and visibly is important" is important because of barriers to entry posed by network effects created by an incumbent competitors).

provider.[145]

A commonly cited example is the technological standard created in the 1990's personal computer market by IBM and Microsoft.[146] When IBM entered the P.C. market in 1981, it was one of several personal computer manufacturers, along with Apple, Commodore, Atari and Tandy.[147] Each of the personal computers used different software for its operating system; IBM adopted Microsoft's MS-DOS for its machines.[148] As the IBM P.C. standard became more popular, Microsoft's operating systems became increasingly important, until it eventually became the dominant operating system for personal computers. . Consequently, it became more profitable for software companies to tailor their software (such as games, word processors, etc.) for Microsoft's operating system. This, in turn, made Microsoft's operating system more valuable to consumers, and increased Microsoft's share of the operating system market. The more popular the operating system, the more software it gathered, and the more software it gathered, the more popular the operating system became.[149]

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[145] Michael L. Katz & Carl Shapiro, *Systems Competition and Network Effects*, 8 J. ECON. PERSP. 93, 108 (1994) (stating that some models demonstrate that "users tend to stick with an established technology even when total surplus would be greater were they to adopt a new but incompatible technology"); Stanley M. Besen & Joseph Farrell, *Choosing How to Compete: Strategies and Tactics in Standardization*, 8 J. ECON. PERSP. 117, 118 (1994) (explaining that because markets exhibiting network effects display inertia, "it is difficult for it to be displaced even by a technically superior and cheaper alternative").

[146] *See* John E. Lopatka, *Antitrust on Internet Time: Microsoft and the Law and Economics of Exclusion*, 7 SUP. CT. ECON. REV. 157, 188 (1999); Gregory G. Werden, *Network Effects and Conditions on Entry: Lessons from the Microsoft Case*, 69 ANTITRUST L.J. 87 (2001); Richard J. Gilbert & Michael L. Katz, *An Economist's Guide to* U.S. v. Microsoft, 15 J. ECON. PERSP. 25, 28-29.

[147] *See* Martin Campbell-Kelly, *Not Only Microsoft The Maturing of the Personal Computer Software Industry, 1982-1995* 75 BUS. HIST. REV. 103, 110-13.

[148] *Id.* at 112-14. Although IBM machines were eventually sold with non-Microsoft operating systems, the needs of software compatibility through several generations of hardware dictated that IBM systems, and those with similar and compatible hardware architecture (IBM-compatibles) continue to use Microsoft software, through several generations of MS-DOS, and, later, Microsoft Windows. *Id.* at 127-28.

[149] Steven D. Anderman*, The Competition Law/IP 'Interface': An Introductory Note* in THE INTERFACE BETWEEN INTELLECTUAL PROPERTY RIGHTS AND COMPETITION POLICY 1, 11 (Steven D. Anderman ed. 2007). It must be noted that all this occurred while several competing operating systems—such as Apple's Mac-OS, Next's NeXTSTEP OS and IBM's OS/2—were judged by industry experts to be technologically superior. *See* Stanley M. Besen & Joseph Farrell, *Choosing How to Compete: Strategies and Tactics in Standardization*, 8 J. Econ. Persp. 117, 118

The economic and legal literature on the subject suggests two possible solutions to the problem of monopolization: open standards[150] and inter-operability.[151] Essentially, both solutions are the same. The core idea is to preserve the network effects without sacrificing competition. The first solution advocates forcing the adoption of standards that will remain open to all industry participants, so that each of them will be able to complete over complementary technologies.[152] The second solution does not require technological standards to be completely open, and settles instead for requiring a design that will enable different technological standards to interact with each other.[153] A well known example is the market for cellular communications. In this market, there are several service providers who operate different technologies, yet the end users of all providers can seamlessly communicate with each other.

Laws are a code of human behavior that can act like codes of technological standards. The economic and social imperatives for law, therefore, are often the same. However, there are some important differences. As far as *formal* law is concerned the state has monopoly power over the production of the code, especially in the field of property where the *numerus clausus* principle grants to the state exclusive power over the recognition of property rights.[154] But the state cannot prevent private parties from creating their own private codes of conduct, and the *numerus clausus* principle does not and cannot bar the creation of *informal* localized property regimes.

(1994) ("[T]he initial success of MS-DOS is usually attributed not to any technical superiority, but to the fact that it was supported by IBM); John Sheesley, *5 of the Best Destop Operating Systems You Never Used*, TECHREPUBLIC (last visited Feb. 9, 2012) http://www.techrepublic.com/blog/classic-tech/5-of-the-best-desktop-operating-systems-you-never-used/107.

[150] *See e.g.,* Michael L. Katz & Carl Shapiro, *Systems Competition and Network Effects*, 8 J. ECON. PERSP. 93, 103 (1994) (describing, as an example of an "open" system, IBM's decision to allow independent software developers to write IBM-compatible software for the PC).

[151] *See e.g.,* Lemley & McGowan, *supra* note 10, at 516 ("One possible solution to the standardization problem is to make the competing standards interoperable. If people can switch back and forth between competing versions of what is essentially the same standard, perhaps society can capture the benefits of competition without wasteful duplication of effort and without stranding consumers who make the wrong choice.")

[152] *See e.g., id.* at 486-87 ("[C]ertain market conditions, such as a credible market commitment to open standards and compatibility, may ameliorate otherwise negative consequences of network effects.").

[153] *See id*.

[154] *See* Merrill & Smith, *supra* note 124 at 3-4 (explaining that the number of property rights are fixed in both common law and civil law property systems).

Indeed, by using contract law, private parties can create legally enforceable localized property regimes that closely resemble property law.[155]

Nonetheless, the network effects of legal standards yield very strong pressure toward standardization. State recognized property rights are rights *in rem* that avail against all persons under the state's authority.[156] Hence, formal property rights are akin to a technological standard that has been adopted by the entire population of the jurisdiction. Owners of state-recognized property rights can transact with relative ease with any other person in the jurisdiction. Similarly, they can call on the state's protection of their rights against transgressions by others in the jurisdiction. Localized property rights, by contrast, avail only against the members of the group that recognizes them. In the extreme, the number of members can be one. Similar to a single telephone user, a single adopter of a property arrangement will receive no value from the unique property form she devised. Indeed, it is meaningless to speak of a right that nobody else recognizes and avails against no one. As the number of community members increases, the potential value of their localized property arrangements increases as well. However, unless a localized arrangement is formally endorsed by the state, it will never encompass the entire population.

More generally, formal recognition of rights that is backed by state enforcement dramatically increases the value of the rights to their holders.[157] Formally recognized rights are very similar to an official currency. The state imprimatur renders those rights more transferable (and consequently valuable) both by increasing the number of potential transferees and by reducing the transaction costs

[155] *See e.g., id.* at 5 ("A willing buyer and a willing seller can create an infinite variety of enforceable contracts for the exchange of recognized property rights, and can describe these property rights along a multitude of physical dimensions and prices. But common-law courts will not enforce an agreement to create a new type of property right."); *Id.* at 54-58 (arguing that *numerus clausus* is irrelevant in today's world where parties can contract in numerous ways to create "new forms of organizational ownership based on contract").

[156] Thomas W. Merrill & Henry E. Smith, *The Property / Contract Interface*, 101 COLUM. L. REV. 773, 777 (2001) ("Property rights, on the other hand, are in rem-they bind 'the rest of the world.'").

[157] Merrill & Smith, *supra* note 124 at 26-34 (explaining that formally recognized rights are more valuable because they do not bear the measurement costs of rights not state-recognized, such as informing parties of the rights resulting from such property regimes).

associated with their passage.[158] But the advantages do not end there. The protection the state provides to formally recognized rights reduces protection costs for owners and according to conventional wisdom gives them an incentive to invest optimally in the development of their assets. Hernando de Soto estimated that in Peru alone the cost of localized property arrangements that have not been recognized by the state adds up to the staggering amount of $74 billion in what he calls "dead capital."[159] Even though this figure is subject to debate,[160] there is no doubt that formal recognition of property rights yields substantial advantages. As de Soto observes, once property rights are formally recognized by the state, they can be "capitalized." They can be used as security for debt, increasing liquidity. They can be more easily sold on the market, again increasing liquidity.[161]

None of these advantages accrue to holders of localized property rights.

C. Translation and the State System of Property

The state is under no obligation to accommodate localized property forms. Naturally, the state can voluntarily decide to design its property code in a way that will be friendly and welcoming to localized property arrangements. But there is no way to force it to do so. In short, the law is not an open standard; nor is there way to force the state to make it "interoperable" with localized property regimes. The burden of achieving legal interoperability lies squarely with the local communities or groups that opt out of the formal legal system and prefer to design their unique property arrangements.

[158] *See, e.g.,* Michael Klausner, *Corporations, Corporate Law, and Networks of Contracts*, 81 VA. L. REV. 757, 764-765 (1995) (arguing that corporate law should be analyzed in terms of network externalities). *But see*, Henry Hansmann, *Corporation and Contract*, 8 AM. L. & ECON. REV. 1, 6-7 (2006) (considering and rejecting idea that corporate charter drafters rely upon Delaware default corporate law rules due to network efficiencies).

[159] DE SOTO, *supra* note 130, at 33 ("The value of extralegally held rural and urban real estate in Peru amounts to some $74 billion.").

[160] Christopher Woodruf, *Review of de Soto's "The Mystery of Capital"* 39 J. ECON. LITERATURE 1215, 1220-22 (2001) (book review); Jim Thomas, *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else* by Hernando de Soto 34 J. LATIN AM. STUD. 189, 189-90 (2002) (book review); Kevin E. Davis, *The Rules of Capitalism* 33 THIRD WORLD Q. 675, 678 (2001) (review of HERNANDO DE SOTO, THE MYSTERY OF CAPITAL (2000)).

[161] DE SOTO, *supra* note 130, at 49-52 ("Legal property thus gave the West the tools to produce surplus value over and above its physical assets.").

As we have seen, in some cases localized property systems are "official" and enjoy or rely on the state's imprimatur.[162] In other cases, the local property systems are "unofficial" and are unrecognized by or even in opposition to state law.[163]

Where localized property system are unofficial, translation costs will generally be significant. But even where state law recognizes localized property systems, translation costs may arise. The localized system, by virtue of its internal set of rules, does not automatically translate into alienable rights within the larger system. Indeed, in some cases, the state imposes restrictions on alienability as part of its recognition of the local system. Such is the case, for instance, with respect to Sami property rights.[164]

All things being equal, state recognition should lower translation costs. Well-designed state incorporation of localized property systems should not only lower the costs of informing outsiders about the nature of the localized rights, it should also lower the costs of enforcing such rights. However, state recognition may also have an adverse impact. Badly designed state incorporation (as was the case with Native American rights) can increase the incompatibility between localized and state systems, without bringing offsetting benefits in enforceability or information. Additionally, state recognition may ossify the localized system, stripping away its ability to respond to community needs. This can lead to lower utility from the localized system over time.

The dynamics leading to the state to recognize only some localized property systems are complex.

Some of the localized arrangements are essentially compatible with the general legal framework while others are not. As we have noted, the degree to which localized property rights are incompatible with those of the state constitutes one of the central costs of translation. These incompatibility costs are systemic as well as rights-centered. The more a localized property right is incompatible with state rights, the greater will be the cost of translating it to the outside world. What is true of the individual right will also be true of the entire property system. The more incompatible a particular localized regime, the less likely it is to be recognized by the legal system. When the legal system refuses to recognize a particular localized arrangement, it means that the value of the arrangement is confined to

[162] *See supra,* Part I.A.
[163] *See supra,* Part I.B.
[164] *See supra,* Part I.A.3.

the group and efforts to enforce the arrangement outside the group will be costly and often fail.

Our analysis gives rise to an important implication. The attitude of the legal system is an important determinant of their sustainability or viability. As we noted, the state is free to determine its attitude towards localized property regimes. It can adopt a welcoming attitude or a hostile attitude. In this sense, the state is similarly situated to the proprietor of a dominant technological standard who has to decide how to approach alternative technological solution.

A caveat is in order here. Our analysis does not imply that localized property regimes are necessarily inefficient for the groups or communities that adopt them, even where the entire regime is incompatible with the state property system.[165] As we will explore in greater detail in the next Part,[166] the benefits, including ideological rents, that group members derive from unique property arrangements may outweigh the cost. Localized property norms contribute to group cohesion and may be essential for the preservation of historical heritage. Hence from the internal point of view of the group members, opting out of the legal standard may be a prudent choice.

At the same time, it must be born in mind that neither the cost of localized property regimes nor the benefits remain constant over time. The calculus is dynamic. Market value of resources may change, making exit options more or less valuable. Membership of the group within the localized property system will doubtless change over time, leading to changed preferences. As the preferences drift, it is likely that translation costs will increase over time, making convergence relatively more attractive.

D. Other Known Problems of Translation

In stating that localized property systems are subject to translation costs, we do not intend to imply that only localized property systems are subject to such costs. In fact, translation problems can arise in other contexts, and, to some degree, problems

[165] Indeed, there is a debate in the literature about the optimal level at which property law should be produced. In a recent article, Christopher Serkin advanced a qualified argument for determining property *protection* at the local level (i.e., by local government), as opposed to the state or national level. See Christopher Serkin, *Local Property Law: Adjusting the Scale of Property Protection*, 107 COLUM. L. REV. 883 (2007). It should be noted that Serkin's analysis focuses primarily on takings and land use issues. In other words, it is concerned with protecting property against government transgressions.
[166] *See infra* Part III.

of translation have previously been recognized in the literature, albeit only in several discrete contexts.[167]

Most obviously, property claims that cross state lines provide a familiar example of property translation problems. These translation issues arise where people seek to enforce property rights established and recognized by one jurisdiction in another. Translation issues in such instances are subsumed into the larger set of problems associated with the field of conflict of laws. Courts tackle translation problems by using conflict of laws principles to determine which legal system's substantive rules ought to apply. A particularly striking instance of such efforts can be found in state law treatment of community property. Community property is a form of joint ownership of property that applies to certain kinds of spousal property acquired during marriage.[168] Only a handful of states today recognize community property; other states restrict spouses to the forms of common ownership recognized in the common law.[169] Courts must therefore use conflict of law principles to resolve disputes where, for example, a couple creates community property while domiciled in a community property jurisdiction, and the couple subsequently establishes its domicile in a non-community property state.[170] In

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[167] Perhaps the most exotic context is "virtual" property. Virtual property rights are "property rights" owned by an imaginary character that exists in the game world. *See e.g.,* Joshua A.T. Fairfield, *Virtual Property*, 85 B.U. L. REV. 1047, 1047 (2005). Because the game worlds are quite extensive, involving hundreds of thousands of players, and players are themselves sufficiently entertained to invest billions (in the aggregate) in the games, virtual property rights can prove quite valuable. In 2010, Jon Jacobs sold a virtual game "resort" in the Entropia Universe in a series of transactions for a total of $635,000. Oliver Chiang, *Meet the Man Who Just Made a Half Million from the Sale of Virtual Property*, FORBES, (last visited Feb. 9, 2012), http://www.forbes.com/sites/oliverchiang/2010/11/13/meet-the-man-who-just-made-a-cool-half-million-from-the-sale-of-virtual-property/. Obviously, translating the virtual property rights into the real world poses significant challenges.

[168] *See* PRINCIPLES OF THE LAW OF FAMILY DISSOLUTION: ANALYSIS AND RECOMMENDATIONS 1, 1 (2002) ("Community-property law begins with the contrary presumption: all earnings from spousal labor during the marriage are the property of the marital "community" in which each spouse has an undivided one-half interest.").

[169] *See* PRINCIPLES OF THE LAW OF FAMILY DISSOLUTION: ANALYSIS AND RECOMMENDATIONS 1, 1 (2002) (stating that since there are only eight community property states and, of these, five instruct courts to divide property "equitably," equitable distribution is the "dominant rule" in the United States today).

[170] *See* RESTATEMENT (SECOND) OF CONFLICTS OF LAW § 259. Comment (a) to § 259 adds: "Considerations of fairness and convenience require that...the spouses' marital property interests are not affected by a change of domicile to another state by one or both of the parties." Comment (b) provides: "If one or both spouses sell

earlier writings, we have participated in the scholarly debate about whether property rights should be more generally made available for migration.[171]

Even without crossing state lines, ordinary property rights can give rise to translation issues. Various ordinary forms of property—co-tenancies, leaseholds, etc. —involve two-tiered property rights, in which one set of rules applies within the circle of owners (among co-tenants, for example), while another set of rules applies outwards to the rest of the world. Internal arrangements among co-owners must be translated to the outside world, and are subject to the obvious costs of education, incompatibility and enforcement.

III. WHY LOCALIZED PROPERTY DOES NOT ALWAYS CONVERGE

Similar to the trend in technological settings, in the world of property, too, there exists constant pressure on localized property regimes to conform to the dominant standard, namely, the formal legal system. The pressure toward convergence is a direct result of the translation problem. As we have explained, holders of localized property rights must incur translation costs when interacting with members of the public at large.[172] The costs of translation therefore reduce the utility of localized property rights. Consequently, all things being equal, translation costs should drive larger state systems to incorporate and supplant localized property rights.

As long as the benefit they derive from having specialized local property arrangements is greater than the cost associated with translation, participants in the localized property system will choose to preserve the localized regime. However, as their losses mount due to increased translation costs, so will the pressure toward convergence—at least in most cases. As we will show, the two central

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the property in their domicile and reinvest the proceeds in another asset, the new asset purchased with the proceeds retains the character of the original." This is departure from the usual conflict of laws rules applying to property, under which the *situs* of the object or the domicile of the party establishes the relevant legal regime to apply. *See* RESTATEMENT (SECOND) OF CONFLICTS OF LAW § 258 ("The interest of a spouse in a movable acquired by the other spouse during the marriage is determined by the local law of the state which, with respect to the particular issue, has the most significant relationship to the spouses and the movable under the principles stated in § 6.").

[171] Abraham Bell & Gideon Parchomovsky, *Of Property and Federalism*, 115 YALE L. J. 72 (2005).

[172] *See, supra*, Part II.A.

variables—the benefits from localized property arrangements and translation costs—change over time. Hence, the analysis must be dynamic.

One variable that affects the likelihood of convergence is the cost of transitioning from the localized property system to the larger state one. Even if members of the group respecting the localized property rights believe that the benefits of their localized property rights no longer justify the payment of translation costs, they may still hold on to their localized system.

The reason for this is obvious. Transitioning to the state property system is potentially costly. If the state does not grant formal recognition or adequate tools for translating the localized property rights into state-recognized legal rights, property owners will find themselves permanently subject to the losses of imperfect translation. If the state does incorporate the localized property rights, this will not necessarily result in convergence, or reduce the translation costs to zero. Politicians, and potential opponents may have to be persuaded to agree to the incorporation, and the very act of incorporation may harm some of the beneficial qualities of the localized property system. Some members of society, both inside and outside the group, may feel that there is benefit to maintaining the separate localized property system alongside the regular state system. In some cases, the political result may be a formalized state recognition of the localized property system, granting the rights state enforcement without full incorporation or interoperability of the rights. This, for instance, is the way the United States has traditionally dealt with some aspects of Native American property rights.[173] But in other cases, no such complete formalization will be possible. Indeed, in some cases, the very incompatibilities between the localized property rights and state property rights that raise translation costs also raise transition costs. In such cases, the price of convergence for participants in the localized property system may be substantial amounts of wealth stored in localized property rights that cannot be transitioned to the state property system.

In this Part, we examine some of the likely barriers to convergence of localized and state property systems. In particular, we note the potential influence of the political process.[174] Importantly, we do not judge political outcomes against convergence as necessarily

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[173] *See, e.g.,* Lilias Jones Jarding, *Tribal State Relations Involving Land and Resources in the Self-Determination Era* 57 POL. RES. Q. 295, 296 (2004).
[174] *See infra*, Part III.C.

bad or necessarily good. Sometimes the outcomes will reflect the optimal result; other times, they will not. In any event, given this background, we show that we should expect to continue seeing partially incompatible property systems despite translation costs.

A. Community Preferences

Localized property regimes often reflect community preferences. Community preferences may reflect a shared ideology, or culture, or simply a common interest of the group. When community preferences diverge sufficiently from those anchored in the state property system, community members can derive a benefit from opting out of the formal property system and adopting their own rules. Therefore, localized property regimes are especially resistant to convergence when they embody community preferences that diverge from the norm, and such regimes may survive even in the face of increasing economic pressures to conform.

Assume, for example, that a localized property regime is consistent with a certain ideology that is shared by all group members. An example of this is the property system used in early kibbutzim, based on the members shared commitment to communism as they understood it.[175] In such cases, high costs of translation may not be sufficient to drive group members to adopt the state property system. The ideological benefits from separation from the state may be so high as to justify paying the high translation costs. Kibbutz members may so enjoy their communist ideological purity that they are more than willing to pay the price of losing the ability to utilize their localized property rights in the surrounding society.

Indeed, in some cases, members may view the translation costs as a valuable commitment mechanism. New members entering the kibbutz understand that the rights they will receive as members—for instance, the right to live in a particular house—will not generally be translatable into the wider society. Because the rights received by the member can only be fully utilized within the kibbutz, members lock themselves into high costs for economic transactions outside the community. These costs can serve as a penalty for defecting from community values and, therefore, as an important pre-commitment mechanism for members of the community.[176]

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[175] *See* David Barkin and John W. Bennett, *Kibbutz and Colony: Collective Economies and the Outside World* 14 COMP. STUD. SOC'Y HIST. 456, 461 (1972); *See also* SPIRO, *supra* note 48, at 557.

[176] *See supra* note 138 and corresponding text.

Importantly, community preferences do not remain constant over time. They may change as a result of the entry or exit of new members with different preferences, or because the original members changed the preferences they once had. External changes often serve as a catalyst in this process. Consider the effect of market prices on ideology (or culture), for example. Even if the internal benefits of the local property remain stable, opportunity costs for the local property system may grow as greater gains can be realized in the outside, state-wide property system. Up to a certain point, the members of community with localized property norms may adhere to their original preferences. At a certain point the opportunity cost will become so large that it will overcome the ideological counterweight. At this point, the process of convergence will start and simultaneously the countervailing ideology will begin to erode.

Once community preferences change, the translation costs that penalize defection can no longer effectively serve as a means for binding together the community. On the contrary, the changed preferences lead the community as a whole to change the form of localized property rights so that the community as a whole will no longer have to pay such high translation costs.

This is precisely what happened in the kibbutzim in Israel. The kibbutzim were founded on a collectivist ideology that shunned private property. For decades, members were not allowed to have any private property rights; all resources were held by the collective.[177] Over time, however, as the Israeli economy developed and younger members of kibbutzim realized that they can get significant returns on their labor if they left the kibbutz and offered services on the open market, they begin to leave kibbutzim *en masse*. This factor was one of the chief causes of the financial collapse of kibbutzim in the 1980's.[178] In response, an increasing number of kibbutzim relaxed the ban on private property and started recognizing private property rights in members. Today, private property rights are the norm in most kibbutzim. Only a small group of well to do kibbutzim still abide by the old property regime.[179]

Notwithstanding the experience of the kibbutzim in Israel, in some instances, community preferences may thwart convergence for long time periods. Even in Israel, it took decades until the forces of the market overcame the strong ideological commitment of kibbutz

[177] *See supra*, Part I.A.2.
[178] *See id.*
[179] *See id.*

members to ban private property. Accordingly, community preferences are an important mitigating force against convergence.

B. Transition Costs

A second barrier to convergence is transition costs. Localized property regimes sometimes arise out of necessity or path dependence. In such cases, they are not optimal even from the vantage point of the actors that abide by them. The informal property rights of *favela* residents provide a useful example. One can reasonably assume that the residents would be more than happy to have their rights formalized. Yet, it does not happen. As is the case with any equilibrium, even an inefficient one, it is necessary to invest resources to effect a move to a more efficient state of affairs.

In this sense, our analysis parallels Harold Demsetz's famous account of the transition of property regimes from open access to private property.[180] Demsetz pointed out that even when the transition to private property rights is efficient, it will nevertheless not occur on account of high transition costs. Formalizing property rights is costly. The introduction of property rights in new resources requires asset-definition, recognition of rights in them, registration of the newly established rights and then enforcement of the rights. The aggregate cost of these tasks may outweigh the gains from privatization.

The same can happen with respect to localized property rights. Informal property rights are prevalent in many countries in Latin America. The *favelas* of Rio de Janeiro represent a much broader phenomenon. Many economists, foremost among them Hernando De Soto, believe that there are enormous gains to be had from formalizing those rights.[181] Currently, the informal rights cannot serves as collateral for securing financing. This, in turn, stunts economic growth. Formalizing those rights requires adopting expensive land reforms. Among other things, the state will have to clear away prior formalized titles to many of the real estate assets that are claimed under the localized property systems. In other cases, the state will have to provide a formal mechanism for recognizing

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[180] Harold Demsetz, *Toward a Theory of Property Rights*, 57 AM. ECON. REV. 347 (1967).
[181] *See* DE SOTO, *supra* note 130. *See also* MICHAEL TREBILCOCK& MARIANA PRADO, WHAT MAKES POOR COUNTRIES POOR?: INSTITUTIONAL DETERMINANTS OF DEVELOPMENT 95-97 (2011); DAVID M. DE FERRANTI ET AL., BEYOND THE CITY: THE RURAL CONTRIBUTION TO DEVELOPMENT 181 (2005); WORLD BANK, DOING BUSINESS IN 2006: CREATING JOBS 31-32 (2006).

transfers that already took place in violation of the formal rules.[182]

Some countries, like Peru, decided to bite the bullet and enact the necessary enabling legislation despite the price tag.[183] Other Latin American countries have refrained from taking this step. There are two possible explanations for the decision not to formalize localized property rights. First, the cost of passing the reform may be thought to exceed the projected benefit. Second, the reform may be blocked for political reasons. The difference between the two explanations is that in the former case, converging the localized property system with the state system is welfare reducing, while in the latter case, the change might be welfare enhancing, yet, is not effected on account of narrow political considerations or because it is not high enough on the politicians' priority list. We discuss these possibilities at a greater length in the next section.

C. Political Motivations

A third force that sometimes countervails the pressure toward convergence is political interests. As Saul Levmore pointed out, the political processes—or more precisely politicians—often thwart efficient changes in the world of property.[184] Changes in property regimes, he reminded us, are a product of the political process. Politicians, as self-interest maximizing agents, would often choose to block welfare enhancing transitions when doing so can help them politically.[185]

As an illustration consider the case of the kibbutzim in Israel. Traditionally, the kibbutzim constituted the base on the Labor party that ruled Israel in the first few decades of its existence. It was clearly in the best interest of labor party to do anything in its power to act in tandem with the leaders of the kibbutzim in order to preserve the dominant socialist ideology as well as the leadership. These narrow political interests enabled the kibbutzim to extract various political

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[182] Michael Trebilcock & Paul-Erik Veel, *Property Rights and Development: The Contingent Case for Formalization* 30 U.PA. J. INT'L L. 437, 443-52 (2008/2009).
[183] *See* Erica Field, *Entitled to Work: Urban Property Rights and Labor Supply in Peru* 122 Q. J. ECON. 1561, 1564-65 (2007); Erica Field, *Property Rights and Investment in Urban Slums* 3. J. EUR. ECON. ASS'N 279, 281; David F. Varella & Jorge L. Archimbaud, *Property Rights and Land Tenancy* in AN OPPORTUNITY FOR A DIFFERENT PERU: PROSPEROUS, EQUITABLE, AND GOVERNABLE 553, 559-63 (Marcelo M. Giugale et al. eds., 2007).
[184] *See* Saul Levmore, *Two Stories on the Evolution of Property Rights*, 31 J. LEG. STUD. 421 (2002).
[185] *Id.* at 426-29.

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concessions and more importantly for our purposes fend off privatization for many years.[186]

The story of the Sami in Norway (and other Scandinavian countries) is in many respects different from that of the kibbutzim in Israel, but it, too, highlights the significance of political considerations as an anti-convergence force. In order to preserve their traditional lifestyle, the Sami and their reindeer herds need to cross over broad expanses of land.[187] The migrating ways of the Sami present a challenge to the Norwegian property system. Yet, for cultural and ideological reasons, the political system in Norway (as well as big part of the population), is strongly predisposed to protect the Sami lifestyle, notwithstanding its cost.[188]

One need not venture to far-off places to appreciate the effect of political motivations on localized property regimes. Localized property rights in parking spots in the U.S. provide a fascinating example of the interaction between localized property arrangements and local politics. In his study of property rights in parking spaces, Richard Epstein reports of the existence of a localized property norm in Chicago under which a person who cleared the snow off of a parking spot is entitled to it until the street is cleared of the ice and the snow by the municipality.[189] Urban activists opposed the practice for being unfair and inefficient, but it was staunchly defended by Richard M. Daley, who said: "I tell people, if someone spends all that time digging their car out, do not drive in that spot. This is Chicago. Fair warning."[190] Clearly, local politicians are strongly disincentivized to overturn the norm for fear of the political price of doing so.[191]

Mancur Olson has noted the ability of small organized groups with a discrete interest in a goal that is very valuable for them to

[186] *See* ELI AVRAHAM, BEHIND MEDIA MARGINALITY: COVERAGE OF SOCIAL GROUPS AND PLACES IN THE ISRAELI PRESS 72-73 (2003); MARSHA DREZON-TEPLER, INTEREST GROUPS AND POLITICAL CHANGE IN ISRAEL 157-58 (1990).
[187] WILLIAMS, *supra* note 89, at 237.
[188] Eva Josefson, *The Sami and the National Parliaments: Direct and Indirect Channels of Influence* in CHALLENGING POLITICS: INDIGENOUS PEOPLES' EXPERIENCE WITH POLITICAL PARTIES AND ELECTIONS 64, 75-77 (Katherine Wessentord, *ed*. 2001).
[189] Richard A. Epstein, *The Allocation of the Commons: Parking on Public Roads* 31 J. LEG. STUD. S515, S528-29 (2002).
[190] *Id*. at S529 (quoting Mark Brown, *Time to Jettison Chicago's Space Junk*, CHICAGO SUN TIMES, January 11, 2001, at A1.).
[191] Indeed, the mayor of Boston who decided to legally overturn a similar norm confronted a serious public outcry. *See* Johathan Finer, *Boston Fights Winter Parking Tradition*, WASH. POST, JAN. 1, 2005, at A1, *available at* http://www.washingtonpost.com/wp-dyn/articles/A39654-2004Dec31.html.

capture the political process.[192] Such groups on account of their superior organization can prevail in the political arena over much larger, yet disorganized groups and extract benefits at their expense.[193] Communities and groups with localized property regimes often fit Olson's description of small organized groups. Consequently, they—or more precisely, their leaders—can extract sufficient concessions from the political system to enable them to preserve localized property arrangements.

Political opposition to transition can therefore arise in a variety of circumstances. Politicians may oppose transition because they view the localized property systems as sufficiently important or valuable to the society at large to warrant the continued payment of translation costs. Alternatively, politicians may oppose transition because the systems are sufficiently valuable to a particularly powerful group that the political losses entailed in convergence are greater than the political gains, even though convergence might be advantageous to society as a whole.

IV. TRANSLATION AND PROPERTY, GENERALLY

Thus far, we have examined the popularity of localized property systems, described the translation costs they create when interacting with the state-wide property system, and examined the reasons why localized property systems may resist incorporation and replacement by the state property system. We now turn to several broader issues of property theory illuminated by the phenomena of localized property systems.

A. Commons

Very few topics in property theory have attracted as much attention as the choice between private property and commons property.[194] The opening salvo in the ongoing debate between the

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[192] Mancur Olson, Jr., THE LOGIC OF COLLECTIVE ACTION: PUBLIC GOODS AND THE THEORY OF GROUPS (1965).
[193] *Id*. at 22-35.
[194] Some important contributions to the literature include Carol Rose, *The Comedy of the Commons: Custom, Commerce, and Inherently Public Property* 53 U. CHI. L. REV. 711 (1986); GARY D. LIBECAP, CONTRACTING FOR PROPERTY RIGHTS (1994); Henry E. Smith, *Exclusion Versus Governance: Two Strategies for Delineating Property Rights* 31 J. L. STUD. S453 (2002); and Louis De Alessi, *Property Rights and Privatization* 36 PROCEEDINGS ACAD. POL. SCI. 24 (1987).

champions of private property and the proponents of commons property can be traced back to Harold Demsetz's seminal *Toward a Theory of Property,*[195] in which he laid out a prima facie case for the superiority of private property regimes, at least from the perspective of efficiency. In a nutshell, Demsetz argued that formalizing private property rights in resources eliminates a severe problem of negative externalities inimical to commons property. He showed that when a resource is held in common, actors have a tendency to overuse it since each of them derives the full marginal benefit of her use, while paying only a small fraction of the marginal cost.[196] This insight has commonly been associated with Garrett Hardin's gloomy prediction that "freedom in a commons brings ruin to all."[197]

Subsequent contributions, among them the path-breaking work of Nobel laureate Eleanor Ostrom[198] have challenged Demsetz's conclusion. Ostrom, for one, has demonstrated that close-knit groups can come up with governance rules that can reduce the externalities problem to a manageable level and solve the overuse problem.[199] Others, foremost among them Michael Heller,[200] pointed out that proliferation of private property rights in resources may lead to serious holdout problems, which result in under-utilization of resources. Heller, following a lead from Frank Michelman,[201] labeled the latter phenomenon "anticommons."[202]

In this Section, we wish to highlight a different, hitherto overlooked aspect of the debate concerning the choice between private property and commons property. Earlier discussions have focused on the resource-by-resource transaction costs entailed in management through private property or commons. We look at the potential transaction costs created by interactions with the property systems. As we will show, including such costs in our analysis dramatically changes the analysis of commons problems.

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[195] Harold Demsetz, *Toward a Theory of Property Rights*, 57 AM. ECON. REV. PAPERS & PROC. 347 (1967).
[196] *Id.* at 354.
[197] Garrett Hardin, *The Tragedy of the Commons*, 162 SCIENCE 1243, 1248 (1968)
[198] ELINOR OSTROM, GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION (1990).
[199] *Id.* at 15-18.
[200] Michael A. Heller, *The Tragedy of the Anticommons: Property in the Transition from Marx to Markets*, 111 HARV. L. REV. 621 (1998); MICHAEL HELLER, THE GRIDLOCK ECONOMY (2008).
[201] Frank I. Michelman, *Ethics, Economics, and the Law of Property*, 24 NOMOS 3, 6 (1982).
[202] Heller, *supra* note 200, at 624.

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Debates to date have focused on the resource-by-resource transaction costs entailed in management through private property or commons. On the one hand, scholars agree that, in high-transaction cost environments, users may be expected to *over-consume* resources in the commons, since users may partially externalize the costs of their use of any given resource while internalizing the full benefits.[203] Thus, for instance, users of a fishery held in the commons know that they can enjoy the full benefit of any fish caught, while suffering only a small portion of the costs of depleting the fishery. This phenomenon is commonly known as the "tragedy of the commons," thanks to Garrett Hardin's famous article on the subject.[204] On the other hand, where the transaction costs of governing strategies are sufficiently low, close-knit communities may adopt governance rules and monitoring mechanisms,[205] as well as social sanctions,[206] to combat effectively the tendency of individual members to overuse a common resource. Thus, Elinor Ostrom showed that close-knit communities, such as Eskimos, have been able to craft rules preventing the depletion of fisheries held in the commons.[207]

Resource-by-resource transaction costs are also responsible for the expected *under-consumption* of resources held by an excessive number of private owners. In such anticommons—as Heller labels them—managing any given resource requires aggregating the consent of numerous private property owners.[208] Where transaction costs are too high, the vetoes cast by one or more of the owners will be final, and the resource will remain unused to its best potential. Thus, Heller cites, among others, the example of private Native American property rights in reservation land. In many cases, says Heller, fractional shares have descended through several generations, creating a multiplicity of owners over the land, each with a tiny share of ownership in the whole. This has led a collection of owners whose costs of

[203] *See e.g.,* Baylor L. Johnson, *Ethical Obligations in a Tragedy of the Commons* 12 ENV. VALUES 271, 273 (2003). *See also* Abraham Bell & Gideon Parchomovsky*, Of Property and Antiproperty*, 102 MICH. L. REV. 1, 11-12 (2003) (discussing Hardin's formulation of the tragedy of the commons).
[204] Garret Hardin, *The Tragedy of the Commons*, 162 SCIENCE 1243 (1968).
[205] OSTROM, *supra* note 198, at 58-102.
[206] *Id.*; ELLICKSON*, supra* note 114, at 167-83. C*f.*, Lior Jacob Strahilevitz, *Social Norms from Close-Knit Groups to Loose-Knit Groups*, 70 U. CHI. L. REV. 359, 359 (2003).
[207] OSTROM, *supra* note 198; Elinor Ostrom & Edella Schlager, *Property Rights Regimes and Coastal Fisheries: An Empirical Analysis*, *in* POLYCENTRIC GOVERNANCE AND DEVELOPMENT: READINGS FROM THE WORKSHOP IN POLITICAL THEORY AND POLICY ANALYSIS 87 (Michael D. McGinnis ed., 1999).
[208] Heller, *supra* note 200, at 668-69.

coordination far exceed any reasonable prospect of earning utility from the land. Heller offers the example of tract 1305, valued at $8,000, but owned by 439 owners, and requiring $17,560 per year to coordinate payments of annual rent that aggregated to only $1,080 per year. The result, says Heller, is a form of property that cannot possibly be cost-effectively managed, and is doomed to non-use or non-productive use.[209]

Our contribution to this debate is in the observation that transaction costs also come in the form of translation costs. At core, our insight is very simple: once a given resource is managed by a regime separate from the legal standard in a certain jurisdiction, it makes translating between the regime and the wider legal standard increasingly cumbersome. Accordingly, in a jurisdiction that generally recognizes private property as the dominant regime for resource management, communities that wish to adopt common property regimes for their own tight-knit group will incur much greater costs. Correlatively, the greater the deviation of the property regime from the default regime, the costlier it will be for the members of the community adhering to it.

Our claim is based on the phenomenon of translation. Simply put, transaction cost analyses must take account not only of the costs of bargaining for optimal use of any given resource, they must also take into account the costs of bargaining across different property systems.

Consider, for instance, Eskimo rights in a fishery. As Ostrom observes, the internal rules of the Eskimo community may prevent overfishing and thereby avoid the tragedy of the commons.[210] However, the fact that the Eskimo rights are internal to the community means they cannot easily be translated to outsiders. An Eskimo fisherman cannot trade rights in the fishery with outsiders, or use the rights as security for a loan.

An interesting implication of our insight is that common resources may sometime be subject to *under-,* rather than over-, utilization. We submit that owing to translation costs, common resources might be left underdeveloped because the rightsholders will be unable to achieve general recognition for any private rights they may obtain in objects they remove from the commons. Importantly, the translation cost associated with commons property cannot be lowered by the adoption of effective internal governance rules. Collective action mechanisms by close-knit communities may

[209] *Id.* at 685-87.
[210] OSTROM, *supra* note 198, at 182-84.

successfully block members' overuse of the common resource. However, these are intra-group measures whose effect is confined to members of the group and their relationships with one another. Hence, Ostrom's research offers no solution to the translation problem. In the situations described by Ostrom, group governance can prevent overuse, but not underuse.

Another implication of our analysis is that some kinds of anticommons suffer even greater problems of underconsumption than realized by Heller. Heller focused on the likelihood of underconsumption where owners have high costs in coordinating with one another.[211] But if the anticommons arise within a localized property system, translation costs must be added to the coordination costs as a barrier to efficient use of the property. To return to the infamous tract 1305 cited by Heller, even if a new and dramatically cheaper system of coordination were developed by the Bureau of Indian Affairs to permit managing the interests of the 439 owners, the property would still be undervalued, because the limitations of transferability mean that any rights recognized by the Bureau and landowners cannot be easily translated into the wider property systems of the United States.

Both in the cases cited by Ostrom and in those by Heller, the translation problem is largely external to the group. It arises from the gap between the property settings of the formal legal systems and the localized property rules adopted by a certain group or community. The adoption of an effective governance mechanism does not remedy the translation problem and cannot remedy it. Our analysis suggests that irrespective of the governance mechanisms that apply to common resources, the mechanisms will often give rise to translation costs.

B. Semicommons

Our translation analysis is also potentially relevant to a branch of the commons literature that focuses on mixtures of features of commons and private property called "semicommons." The term semicommons is often attributed to Henry Smith, and it refers to situations in which assets are managed with a mixture of commons and private property rights.[212] The classic example cited by Smith is the open fields system used in England in the Middle Ages. In the open fields system, peasants each privately owned delineated strips of land in one or more large fields within the village boundaries.

[211] Heller, *supra* note 200, at 673-675.
[212] Smith, *supra* note 28.

However, alongside the peasants' private rights in the land, there co-existed a commons regime under which the land would have to be opened for grazing during specified times of year.[213]

Smith posited that semicommons would arise where in some places or for some uses, an asset could be most profitably managed by protecting private exclusion rights and leaving one person to be the gatekeeper for the asset, while at different times or for different uses, the asset would be optimally managed through a governance regime, without a single gatekeeper.[214] The advantage of semicommons over commons regime could be found in the disciplining effects of partial private property. The strategic offloading of costs on to other users that characterizes commons regimes is less profitable in a well-designed semicommons. At the same time, semicommons may prove cheaper to set up and manage than a full private property regime, and transaction costs among the semicommons owners may prove lower, making semicommons preferable in certain circumstances to full scale private property.[215]

A translation analysis adds a dynamic dimension to Smith's analysis. Following the path of Harold Demsetz, Smith imagines transitions between and among commons, semicommons and private property regimes as the values of the asset and various uses of it change, in contrast with the transaction costs involved in managing the property, and transitioning among regimes.[216] We posit that one potentially hidden costs in the analysis is the costs of translation of semicommons arrangements beyond the bounds of the community. Semicommons arrangements could certainly encourage efficient use among members of a community using an open field. However, because those rights are partially bound to the ongoing governance arrangements with the community, there will necessarily be translation costs involved in moving to a different area, or in bringing in outsiders. These translation costs can thus exacerbate the standard costs involved in relocation and mobility. In medieval England, translation costs could extract a hidden price from the peasants twice: once by discouraging mobility, and a second time by making transitions more costly where localities would have to translate old rights into new ones.

The advantages of semicommons are therefore tightly linked to the pervasiveness of owner mobility and their potential desire to

[213] *Id.* at 134-48.
[214] *Id.* at 141-43.
[215] *Id.* at 145-154.
[216] *Id.* at 141-143.

translate their rights to outsiders. The more dynamic the society, the more costly semicommons regimes are, irrespective of the internal costs of managing a semicommons and encouraging optimal management and use.

C. Property Formalities

A third field of scholarly inquiry for which our translation analysis holds relevance is the field of inquiry pioneered by Peruvian economist Hernando de Soto. De Soto is best known for his work on informal economies in the third world,[217] and his thesis that an informational framework is the necessary backbone for the full enjoyment of property rights.[218] For instance, de Soto writes that owners of assets in "informal" (i.e., not fully legal) economic units like favelas enjoy property rights that cannot reach their full potential because the owners cannot use their rights to obtain credit. Unregistered and unrecognized rights cannot be mortgaged and used to secure loans. Unregistered and unrecognized rights cannot easily be transferred to others. Unregistered and unrecognized rights cannot easily be vindicated in courts of law.[219]

De Soto argues that formalizing property rights, and creating the informational framework for recognizing and vindicating those rights is the key to unlocking their potential to create wealth. Once rights are properly registered, information about the property rights is available to a much wider audience, and the potential for realizing gains from the property is correspondingly greater.[220]

The relevance of de Soto's work for our analysis of translation costs of localized property systems is obvious. Indeed, as we see it, de Soto's argument explores one central aspect of the wider phenomenon of localized property systems and their translation costs. As we argue, significant information costs can be created by localized property systems and their differences with other property systems. However, these are not the only translation costs that must be considered. For instance, rights within localized property systems may be partially incompatible with the state-recognized property rights. Thus, formalization of rights might come at the cost of losing some of the attractiveness of the structure of localized property rights. This is why, in some cases, "formalization" of rights—or in our parlance,

[217] DE SOTO, *supra* note 130; HERNANDO DE SOTO, THE OTHER PATH (1989).
[218] DE SOTO, *supra* note 130, at 52-54.
[219] *Id.* at 61-62.
[220] *Id.* at 52-54.

convergence of localized property rights with the wider state property system—may be disadvantageous. In other cases, of course, "formalization" is highly desirable. De Soto's work is an important contribution to the analysis of localized property systems, but it is incomplete.

CONCLUSION

In this Article, we have explored the phenomenon of localized property systems and the interactions of such localized property systems with property law. In our exploration, we have looked both at the local systems themselves, and at their implications for our broader understanding of the world of property.

We began by showing the ubiquity of localized property systems. Some appear quite exotic, such as the informal property rights in favelas in Brazil, collective property rights in kibbutzim in Israel, or even virtual property rights in computer games. Other localized property systems are quite mundane, such as the quasi-property rights in urban parking spaces, or the agreed-upon property arrangements among roommates. In all events, localized property systems serve some need of the localized property users. The localized systems may be due to lower transaction costs thanks to ongoing relationships (roommates), ideological preferences (kibbutzim), flaws in property law or its satellite regulatory systems (*favelas*) or a variety of other reasons. Whatever the reasons for the localized property systems, they are not costless. All localized property systems entail translation costs with the wider state property systems around them. Translation costs result from incompatibilities, as well as information and enforcement costs. Some of the localized systems are adopted or recognized by state law; others are not. Systems that earn state recognition may benefit from lower translation costs, but they may only suffer from poor incorporation or from ossification. In any event, state recognition of localized systems does not eliminate translation costs.

One way of understanding the phenomenon of localized property systems is through the economic lens of network effects. The value of property arrangements increases as the number of people who abide by them goes up. The greater the number of adherents, the greater the utility of the property regime. These network effects, and the translation costs generated by localized property systems, create pressure for localized property systems to converge with the larger state property systems around them. But pressures for convergence

may be resisted. Convergence is itself costly. The costs of transitioning may bar convergence, or the continued utility of the localized property system may render convergence not cost-effective. Additionally, politics may block efficacious convergences of property systems.

Our Article aims to provide the beginnings of an exploration of localized property systems and translation problems, rather than a complete survey. We demonstrated that the insights we identified in this Article have important and divergent implications for the theoretical work on common property, the semi-commons, and property formalities. Specifically, we showed that the introduction of translation costs into the analysis calls into questions the positions endorsed by property theorists on common and semi-common property, as well as the formalization of property rights in various resources. If our analysis our correct, policymakers must pay close heed to the problem of translation they design future property systems.