Bob Ellickson’s work is so wide-ranging, thought-provoking, and important that doing it justice here is an impossibility—so I will admit defeat on that score at the outset. Instead, I want to focus on one recurring theme that runs through much of his scholarship and that has been especially important to my own thinking about property: that scale matters. Ellickson cashes out this idea in many rich and interesting ways, but I will use three broad propositions that emerge from his work as a way of organizing my remarks. First, that the scale at which activities and events unfold should drive choices among property arrangements. Second, that the institutions for managing property should be scaled to fit the relevant action. Third, that scale should factor into our normative evaluations of the societal impacts of various institutional and property arrangements.

I. SCALING PROPERTY REGIMES

Ellickson’s 1993 article, Property in Land, is a masterful theoretical treatment of the problem of scale as it relates to property ownership arrangements. One of its central insights is that structuring access to property, through the positioning of boundaries or otherwise, is not a zero-sum game. Resource users can collectively achieve gains by appropriately configuring property arrangements—whether as individual owners working small parcels, households on somewhat larger tracts, small groups on tiny limited-access commons, or much larger groups sharing common fields.

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2 See, e.g., id. at 1320 (stating the thesis that “close-knit groups” will develop efficient rules and explaining that this thesis “envisions that people on the ground recognize that property in land is a positive-sum game and play it cooperatively”).

3 See id. at 1322–26. Ellickson’s list of property forms also includes an open-access regime “in which privileges of entry are universal,” as well as an “anticommons,” defined as “a land regime in which each member of a public owns a right to exclude, and consequently for which no one owns a privilege of entry and use.” Id. at 1322 & n. 22. As Ellickson notes, Frank Michelman first formulated the anticommons idea. See id. at 1322 n. 22 (citing Frank I. Michelman, Ethics, Economics, and the Law of Property, in NOMOS XXIV: ETHICS, ECONOMICS, AND THE LAW 3, 6 (J. Roland Pennock & John W. Chapman eds., 1982)). Michael Heller later adapted and extended the anticommons concept. See, e.g., Michael A. Heller, The Tragedy of the Anticommons: Property in the Transition from Marx to Markets, 111 HARV. L. REV. 621 (1998).
The trick is to scale land holdings so that the most valuable activities can be pursued most efficiently. Following Harold Demsetz, Ellickson explains that individually owned parcels do a good job of containing both the positive and negative impacts of “small events” such as the cultivation of tomato plants, and thus successfully align the parcel owner’s incentives for such events. Individual parcel ownership also works comparatively well in addressing a “medium event” like building a dam across a stream, given the relative ease of bargaining with an affected neighbor or two, and the relative difficulty of getting a larger group to agree to anything.

But Ellickson does not uncritically conclude that individual parcel ownership is always best. Instead, he considers how changes in returns to scale could alter the picture. Growing individual tomato plants may not require much land, but there are economies of scale for some land uses, such as grazing. Bigger parcels also economize on fencing, but introduce new governance challenges within the fence. Whether moving the fence outward is worth it depends in part on whether coordination across large areas will be required to use the land optimally—if so, then it may be easier to coordinate with co-owners inside an expanded fence than to strike bargains with a multiplicity of separate parcel holders. In making these tradeoffs, Ellickson explains, we want to know not only about economies of scale in production, but also about the

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4 Ellickson, supra note 1, at 1325 & fig. 2, 1327–28. As Ellickson notes, Demsetz had observed that individual ownership internalizes these kinds of events to the owner, but had not focused on the possibility of boundary encroachments. Id. at 1327 (citing Harold Demsetz, Toward a Theory of Property Rights, 57 AM. ECON. REV. (PAPERS & PROC.) 347, 354–56 (1967)). Crucial to Ellickson’s argument, then, is the proposition that “[m]onitoring boundary crossings is easier than monitoring the behavior of persons situated inside boundaries.” Id. at 1327–28; see also id. at 1328–30 (discussing the costs of establishing and enforcing boundaries).

5 Here too, Ellickson builds on the work of Demsetz, who argued that group ownership that requires coordination among many would have higher transaction costs than individual ownership in addressing events that affect only a couple of parcels. See id. at 1330–31. Ellickson qualifies this point by noting that neighbors, as bilateral monopolists, may act strategically in ways that raise transaction costs. Id. at 1330 n. 56. He then adds two observations that buttress Demsetz’s analysis: that neighbors occupying adjacent land parcels in an individual ownership regime are likely to share a more closely-knit relationship that will smooth bargaining than would a larger group operating the land communally, and that these neighbors are also likely to have more information about relatively localized events than would a larger group. Id. at 1331.

6 See id. at 1332.

7 This is a purely geometric point. See id. at 1332 n. 62.

8 See id. at 1334; see also Henry E. Smith, Exclusion Versus Governance: Two Strategies for Delineating Property Rights, 31 J. LEGAL STUD. S453 (2002) (analyzing and modeling the interplay between boundary exclusion and internal governance).

9 Ellickson, supra note 1, at 1334 (“A landowner who shifts a general-purpose boundary outward increases his burdens of internal management but decreases his burdens of external coordination.”).
prevalence of "large events" (he gives the example of a "smoky fire") that are likely
to affect many parcels simultaneously.\textsuperscript{10}

In Ellickson's recent work on the household, he shows that similar scale consid-
erations emerge in choosing the number of people with whom to share a dwelling.\textsuperscript{11}
There are economies of scale in sharing amenities like space, shelter, heat, and meals,
but diseconomies with respect to privacy, control over one's environment, and pursuit
of preferred activities.\textsuperscript{12} If the household is mostly about fostering intimate relationships and personal expression and less about efficiently producing and consuming heat and food, the choice will be made differently than if the priorities are flipped—and changes in social and economic conditions could alter the equation.\textsuperscript{13}

A foundational challenge, of course, is that multiple activities with varying effi-
cient scales are often pursued simultaneously or sequentially on particular property
holdings.\textsuperscript{14} As Ellickson observes, there are a variety of strategies available to contend
with this problem, none of them costless. Sometimes spatial "layering" is possible,
as when different rules apply to crossing property boundaries at ground level than to
crossing property boundaries in aircraft.\textsuperscript{15} Sometimes special-purpose subdividing
is possible, as when members of a household share common areas but have their
"own" rooms, or when commonly grazed land is divided up into individually farmed
strips as it was in the medieval commons.\textsuperscript{16} Because the values of different uses

\textsuperscript{10} Id. at 1334–35.
\textsuperscript{11} See ROBERT C. ELICKSON, THE HOUSEHOLD: INFORMAL ORDER AROUND THE HEARTH
(2008) [hereinafter ELICKSON, HOUSEHOLD]; Robert C. Ellickson, Unpacking the Household:
Informal Property Rights Around the Hearth, 116 YALE L.J. 226 (2006) [hereinafter Ellickson,
Unpacking].
\textsuperscript{12} See Ellickson, Unpacking, supra note 11, at 260, 287–92; see also BRENDAN
O'FLAHERTY, CITY ECOnOMICS 348–49 (2005) (comparing houses to "miniature cities" and
examining tradeoffs between economies of scale in housing and concerns about congestion,
security, coordination, and privacy).
\textsuperscript{13} Ellickson, Unpacking, supra note 11, at 290–91 (explaining how access to widespread
trade with "outside vendors" would "tend to reduce both the number of household occupants
and the scope of household production"). Ellickson separately considers how the scale of
ownership—as distinct from occupancy—might be optimized. Id. at 292–93.
\textsuperscript{14} See Ellickson, supra note 1, at 1332 ("Decisions on where to set land boundaries are
fiendishly complex because most tracts of land are suited to multiple uses for which scale effi-
ciences vary."); id. at 1332–33 (giving an example in which property has one optimal scale for
use as a college and a different optimal scale for exploitation of the underlying oil reserves);
see also Abraham Bell & Gideon Parchomovsky, Reconfiguring Property in Three Dimensions,
75 U. CHI. L. REV. 1015, 1024 (2008) (discussing Ellickson's example); Dean Lueck, The
Economic Nature of Wildlife Law, 18 J. LEGAL STUD. 291, 300–03 (1989) (examining the
problem of multiple efficient scales as it relates to wildlife law).
\textsuperscript{15} See Ellickson, supra note 1, at 1363–64.
\textsuperscript{16} Id. at 1333–34, 1372 (discussing "internal subdivisions" such as bedrooms); id. at
1388–91 & fig. 3 (discussing and depicting the medieval open-field system and examining
a variety of economic explanations for the arrangement). See generally Henry E. Smith,
change over time, rules that determine how easily property can be reconfigured—broken up or aggregated—also become important.\textsuperscript{17}

Ultimately, some form of institutional arrangement becomes necessary to address impacts that cannot, for reasons relating to optimal scale, be fenced out.\textsuperscript{18} For example, property is of little value without a system of roads to which common access is provided, yet the roads themselves are useless (or worse) unless people can coordinate their behavior while on them.\textsuperscript{19} Other goods, like neighborhood ambience, occur at a scale larger than the individual parcel and must be managed somehow.\textsuperscript{20} This brings us to the next facet of Ellickson’s work that I want to discuss—the relationship between scale and institutional choice.

**II. SCALING INSTITUTIONS**

Because the simultaneous occurrence of events at multiple scales is the rule rather than the exception, legal institutions are called upon to do a great deal more than simply enforce boundaries around whatever property ownership regime is in place. Even if parcelization achieves internalization for small-scale events, and medium-scale events can be mostly handled through low-transaction-cost deals among a small number of neighbors,\textsuperscript{21} there will still be larger events that require a coordinated response.\textsuperscript{22} In these cases, the law steps in with governance rules, through mechanisms like nuisance law, zoning, and covenants.\textsuperscript{23} Deciding on the appropriate institutional

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\textit{Semicommon Property Rights and Scattering in the Open Fields}, 29 J. LEGAL STUD. 131 (2000) (explaining how the need to conduct activities at different scales while controlling self-serving behavior led to the development of a “seicommons” arrangement in the medieval open fields).

\textsuperscript{17} See Ellickson, supra note 1, at 1333, 1374–75; Michelman, supra note 3, at 15–16. This point relates to a large body of work in property theory, including the work that Michael Heller and others have pursued on the anticommons. See, e.g., Michael A. Heller, \textit{The Boundaries of Private Property}, 108 YALE L.J. 1163, 1172 (1999); Heller, supra note 3, at 667–79.

\textsuperscript{18} See Ellickson, supra note 1, at 1333–34.

\textsuperscript{19} Id. at 1381–87. For a discussion of the significance of roads and other public spaces that facilitate interaction, see generally Carol Rose, \textit{The Comedy of the Commons: Custom, Commerce and Inherently Public Property}, 53 U. CHI. L. REV. 711 (1986).

\textsuperscript{20} See Ellickson, supra note 1, at 1386 (noting that residential associations set rules for common areas).

\textsuperscript{21} See supra text accompanying notes 4–5.

\textsuperscript{22} Ellickson, supra note 1, at 1333–35.

response requires close attention to matters of scale, Ellickson argues. Analogizing to land boundary problems, he explains how the scale at which local public goods are produced and the significance of spillover effects help in setting optimal territorial boundaries for governance. Here, he invokes the principle of subsidiarity—the notion of devolving authority over a given matter to the smallest unit capable of handling it competently.

Ellickson has done a great deal of creative thinking about the workings of real and proposed institutional arrangements, especially those operating at relatively small territorial scales. One such institution is the household itself, which he describes as “a pint-sized community with proven staying power.” Moving to a somewhat larger scale, he has explored how private neighborhoods governed by homeowners associations differ from municipalities, not only in their territorial scale, but also in the way in which political power is allocated. Ellickson’s 1998 article, New Institutions for Old Neighborhoods, identifies an unfilled “niche” in between the household and the neighborhood for an institutional form that he dubs Block Improvement Districts (BLIDs). He suggests that BLIDs might usefully borrow institutional templates from residential community associations to achieve gains at the sub-neighborhood level.

Ellickson cites a variety of advantages for a scaled-down institutional approach to community governance, including the possibility that block-level institutions could better provide highly localized public goods like “block-watch programs,” could cater to more idiosyncratic local interests, and could strengthen both informal social capital bonds and community involvement in the governance process itself.

Of course, whether a given institution is appropriately scaled depends on the local public goods and local impacts under consideration. For example, a community association that works well internally may produce externalities for outsiders. And, once again, the problem of multiple efficient scales emerges: a block-level institution might be appropriately scaled to fix sidewalks and maintain playgrounds, but quite inappropriately scaled to tackle larger transportation or housing challenges.

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24 See, e.g., Robert C. Ellickson, New Institutions for Old Neighborhoods, 48 DUKE L. J. 75, 80 (1998) (“Like other people, urban residents recognize that the ideal scale of governance varies with the task at hand.”).
25 Id. at 79–80.
26 See id. at 80.
27 Ellickson, supra note 1, at 1362. For a detailed examination of the household’s institutional characteristics and control mechanisms, see Ellickson, Unpacking, supra note 11 and ELLICKSON, HOUSEHOLD, supra note 11.
28 See generally Ellickson, Cities and Homeowners Associations, supra note 23.
29 See Ellickson, supra note 24, at 80–85.
30 Id.
31 Id. at 82–85.
32 Id. at 85.
33 See id.
may be addressed in the institutional context with, in Ellickson’s words, “nested territorial institutions operating at varying scales.”

Decisions about the dispersal of decision-making authority often run into questions about social justice, however, bringing us to a third way in which Ellickson’s work illuminates the potential significance of scale.

III. SCALING SOCIAL POLICY

Whether a particular community is described as segregated or integrated, homogeneous or heterogeneous, exclusionary or inclusive, can depend critically on the scale of observation. In a recent commentary on a book chapter of mine, Ellickson offered the following spectrum of “grains of urban social environments” arrayed from fine to coarse:

1. household
2. block-front
3. cluster of several residential blocks
4. neighborhood (roughly, an elementary school attendance area)
5. submunicipality (roughly, a high school attendance area)
6. entire municipality (situated within a much larger urban area)

There is an interesting interplay between homogeneity and heterogeneity as one zooms in or out, as Ellickson and his co-author, Vicki Been, have pointed out. What they term a “Waring Blender model” of land use—one that “call[s] for all land uses and all types of households to be represented in each neighborhood in proportion to their representation in the entire metropolitan area”—would achieve heterogeneity at a small scale, but would produce homogeneity at a larger scale. As Ellickson and Been explain, “the Waring Blender model produces great diversity within neighborhoods, but no diversity between neighborhoods, and thus may limit the variety of residential choices available to households.”

34 Id. at 80; see also Elinor Ostrom, Design Principles of Robust Property Rights Institutions: What Have We Learned?, in PROPERTY RIGHTS AND LAND POLICIES 25, 36 (Gregory K. Ingram & Yu-Hung Hong eds., 2009) (discussing the design principle of “nested enterprises,” in which “larger institutions exist to govern the interdependencies among smaller units”).
36 Id. at 205 (internal footnote omitted).
37 ELICKSON & BEEN, supra note 23, at 771.
38 Id.
39 Id.
Permitting more homogeneity at smaller scales not only leaves open the possibility of more heterogeneity at the next scale up, Ellickson argues, but also facilitates more bonding among community members. There are obviously many difficult normative judgments in play on these points, and plenty of room for disagreement. But the general proposition that scale might matter to at least some of our social policy assessments has intuitive resonance. Few would argue that the same evaluative criteria should apply to a household as to a city. The point applies not only to questions of residential association, but also to other sorts of land uses about which people may disagree. For example, in discussing how particular sorts of urban activity, such as panhandling and bench squatting, might be treated, Ellickson hypothesized a system of Red, Yellow, and Green Zones in which decreasing amounts of street disorder would be permitted. The desirability and appropriate scale of such a scheme are open to question, but there is a palpable difference between restricting the behavior of a homeless person in a single block occupied by a school and applying those same restrictions across an entire neighborhood or city.

In all of these contexts, however, it is essential that arguments about appropriate scale remain sensitive to the cumulative effects of localized policies. To say that every neighborhood need not be a microcosm of the optimal metropolitan-wide mix of uses is one thing; to grant each neighborhood autonomy to decide which uses it will exclude is quite another. As I have argued elsewhere, exclusion is itself a limited resource and draws made on it by one group can have important spillovers for other groups. This observation suggests a potential divergence between the optimal scale at which social phenomena should be evaluated and the optimal scale at which social policy should be formulated and implemented.

For example, Ellickson and Been's critique of the "Waring Blender" model assumes (following the Tiebout hypothesis) that a rich variety of distinctive yet
attractive communities would otherwise spontaneously appear. But a wealth-stratified ladder of communities that includes places no one would affirmatively choose to live\textsuperscript{45} may instead emerge from a system that enables fragmented communities to exclude at will.\textsuperscript{46} Shutting off the social planner’s “blender” to permit small-scale homogeneity does not automatically produce a diverse array of alternatives at the next scale up; communities left to their own devices (and given exclusionary zoning tools) might tend to closely resemble each other in their homogeneity.\textsuperscript{47} Avoiding these results and preserving a meaningful range of residential choice requires some system-wide coordination. Such coordination need not take a command-and-control form, however, and Ellickson’s innovative work on alternative mechanisms could have real traction in this context.\textsuperscript{48}

CONCLUSION

These brief remarks have scarcely scratched the surface of one element of Ellickson’s scholarship, yet I hope that they have offered a glimpse of the creativity and power of his ideas. As this symposium attests, Ellickson has made pathbreaking contributions in many areas, but the topic I have chosen to address here holds special significance. Indeed, deeply influenced by Ellickson’s scholarship, I have elsewhere suggested that scale is \textit{the} unifying theme of the commons, anticommons, and semicommons templates that scholars employ to understand and resolve all manner of resource dilemmas.\textsuperscript{49} Of course, I am not alone in recognizing Ellickson’s scale-related contributions: many other scholars have built on those insights in studying

\textsuperscript{45} See Ellickson & Been, \textit{supra} note 23, at 771 (citing Charles Tiebout, \textit{A Pure Theory of Local Expenditures}, 64 J. Pol. Econ. 416 (1956)); see also Ellickson, \textit{supra} note 35, at 201 (observing that the “Waring blender” approach would not only do away with “distinctively black or white neighborhoods” but would also mean “no Chinatowns, no blue-collar neighborhoods, no gay neighborhoods, no graduate-student ghettos, no clusters of struggling artists”—a vision of the world that Ellickson’s students consistently reject “as boring and too restrictive on freedom of association”).


\textsuperscript{49} See, e.g., Robert C. Ellickson, \textit{Suburban Growth Controls: An Economic and Legal Analysis}, 86 Yale L. J. 385, 410–14, 436–38, 467–70, 505–10 (1977); see also Fennell, \textit{supra} note 44, at 1266 (citing and discussing Ellickson’s work).

the workings of property, and in evaluating policies and institutions for responding to property dilemmas. Although Ellickson's conclusions have not garnered universal agreement (whose have?), his careful and curiosity-driven examination of ideas has earned the respect of every legal scholar I know.

I could go on and on, but the scale of my task here is small, and I trust that readers have gotten the point by now: Ellickson's career qualifies as a very "large event" in legal scholarship, and one that has had, and will continue to have, a profound influence on how we think about human arrangements for living and working together.