

**40 Years of Land Use in Maine:
From Production to Consumption
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I am an amateur bird watcher. There are connections between this hobby and my profession as a land use planner: interest in habitat and the like. But I've found myself thinking about something more rudimentary. If each part of our terrestrial landscape—the city, the suburb, the rural lands, the wild lands—were to be assigned an avian symbol, what would it be? I've done other idle thinking, too, including if one were to come back as a bird in the afterlife, what would be the wise choice? The answer is the American crow, but I won't go into that now.

As to the mascots, the city's bird surely would be the Rock Dove, a.k.a. the common pigeon, with its remarkable substitution of the ledges of city buildings for the wild rocky areas of its native Europe. Most would probably name the American Bald Eagle the avian symbol of the wild lands and their rivers and estuaries. For the rural wooded lands, you could choose from among a host of beauties—wood warblers, chickadees, and thrushes, for example—but my vote would be for the Scarlet Tanager, one of the spectacularly beautiful indicators of a healthy rural landscape.

That leaves us the suburbs, and I know many of you, for its love of shady lawns and golf courses, would say: "Robin." But, no, the American Robin does not really speak to the essence of today's low-density suburb. I think the honor goes to the Brown-headed Cowbird.

I'll try to tell you why.

The Organization of Land for Human Use

The 1950s and 1960s marked the fading of one era of land use in Maine and the rising dominance of another. Before describing this transition, it is useful to think about how and why human beings organize the land for their use in the first place.

From ancient times, at least in agricultural and industrial societies, human beings have organized some land **for the primary purpose of exchange**. The things being exchanged take every imaginable form. They include goods and services, philosophies and ideas, protection, inventions, rumors and information, friendships, fears, mythologies, and for that matter, albeit unwittingly, disease – and perhaps most important of all, knowledge. These lands were organized as urban places: cities. On them were put dwellings, stores and merchant houses, piers and wharfs, places of worship and places of pleasure, fuel depots and warehouses, city halls and courthouses, factories to produce the goods for trade, and libraries, universities, and museums to build up and store knowledge for later exchange. All were organized to facilitate rapid and efficient exchange, at scales that matched current modes of transportation. The city, of course, is the platform for many functions of society. But there would have been no cities if people had no need to exchange things.

The essential though not the only relationship of the *urban* land owner or user to the land is **speculative**: an investment made in anticipation of a future financial return. From the city we get such terms as the “100% location” and “highest and best use.” It is one of the reasons we both revere and fear cities, as places where much individual and community wealth is created and as places of exploitation. We are both drawn to cities—indeed, we depend on them--and want to escape them.

From ancient times, both in agricultural and hunter-gatherer societies, human beings also have organized land--in fact, the largest part of it--**for the primary purpose of production**. These lands are held and worked to turn natural resources into food, fiber, fuel, and materials. They were organized and managed as rural places: farms, timberland, pits and mines, hunting and fishing grounds and the wildlife associated with them. There were reserved the masses of land required of such production, along with homes for the producers and the hamlets and villages to provide supporting goods and services required for daily living. Even with the urbanization of society and the distance, both physical and psychological, that now exists between people and their sustenance, rural lands remain the well-head of survival. Garrett Hardin estimates that, in addition to

the land area that we use for our homes, factories, warehouses, stores, waste disposal, and transportation facilities—an average of about 3 acres per person--each American requires about 4.5 acres of crop- and pastureland and about 2.5 acres of woodland to support our demand for food and other resources.

The relationship of the *rural* land owner or user to the land is **active**, whether the farmer, logger, or fisherman earning a living or the corporate owner or investor seeking long-term gains. In one way or another, each applies labor or capital to a natural resource for growing and harvesting or finding and extracting something for later use.

More recently, dating back 250 years in Anglo-American history but in a large-scale way only during the last century, human beings have organized certain land **for the primary purpose of consumption**. This purpose is well documented in the literature of both poets and historians, and now by our own easy observations as well. Early in the Industrial Revolution, people of means sought to escape the squalor and the dank, dark, noisy conditions of the newly industrialized urban centers. Moreover, they considered it a moral duty to escape on behalf of their families, which for the first time in history had the luxury to be thought of as social units rather than as economic units. The land beyond the bounds of the industrial city but within easy striking distance of it came to be organized as a new form of suburb, what historian Robert Fishman has called “bourgeois utopia” and Robert Jackson has labeled the “crabgrass frontier.” What ever it is called, it is organized for consumption. The most obvious manifestation of this is the division of land for the buying of house lots entirely separated from places of work, production, and exchange. But that understates the purpose. It is also for the consumption of scenery and privacy; for the prospect of the view carved out of a landscape needed not for working but for enjoying, and shaped to one’s own image or tastes; and for the consumption of a nuclear family-oriented way of life.

In contrast to the rural landowner’s active relationship to the land, the relationship of the suburban land owner to the land is passive. The land exists as a form of buffer from the active and sometimes distasteful rest of the world. This is the dominion of

middle class kings and queens who, as much as possible, seek command of their immediate surroundings.

And so, broadly speaking, there are three categories of land organized for different purposes: urban land organized for exchange, rural land organized for production, and, in between, suburban land organized for consumption.

There is a fourth category as well, but this is land not organized by or for human beings: **wildland**. Not much is left in the eastern U.S. Some of what remains probably can be found in Maine's North Woods. But as Ian McHarg has observed, such land is protected principally by poverty and inaccessibility. While Maine and its tributary tourist region aren't free of poverty, middle class affluence and accessibility have claimed much of the wildlands.

The Transition: From Rural to Suburb

How much of Maine's land falls into each of these categories of urban, suburban, and rural?

Maine contains a little less than 20 million acres of land. At the end of the 20th century, about 90% of it was forested—about the same percentage as in the 1950s. By that time much of the land that had been cleared 100 to 125 years earlier for farming had reverted to trees. Farmland, meanwhile, fell sharply, from nearly 1.5 million acres in the 1950s to fewer than 600,000 acres in the 1990s, a decline of 60%. Accounting for the give-and-take between farm and forest, an estimated 88% of the land base of Maine can be considered “rural” – that is, organized for production—though some of this, if a definition could be agreed upon, might also be called wildlands. Another 4% are in fee conservation and parklands and coastal wetlands.

Urban land is but a tiny part of Maine's land base: only about 1.5%, less than 300,000 acres. But it is efficient. It accommodates more than 525,000 people, or 41% of the state's population, plus much of the state's commercial base. This urban area

increased its land base only modestly during the last 50 years (Plantinga et al., Table 1)—by about 16%. Almost all of the growth in development was outside of urban areas as rural land was converted to suburban use. The amount of suburban land nearly doubled from 1950 to 2000 to approximately 1.2 million acres, or more than 6% of land in Maine. This land is occupied by about 600,000 people, or about 48% of the population.

Now let's bring this general picture into sharper focus.

Most of Maine's rural land – 89% of the forested acres, 73% of the farm land, and a large share of the conservation land -- is in the nine counties of western, northern, and eastern Maine. Cumulatively, on the order of 98% of the land of these 9 counties can be considered “rural,” and perhaps to some extent wild land. The urban and suburban portions of this region, comprising perhaps 300,000 to 400,000 acres, are concentrated in the Bangor area and in and around the smaller service centers of the territory, such as Presque Isle, Ellsworth, Farmington, and Skowhegan.

The profile is dramatically different for the seven counties of southern Maine through Androscoggin and Kennebec and the mid-coast through Knox. These counties are small geographically, containing a total of about 2.7 million acres. Here, I estimate that a majority of the land, 55% to 60%, is active or potentially active timberland; another 5% is in active farming; and a small share is in conservation and parklands. That means that a third of the region, or more than 900,000 acres, now are organized either for urban or suburban purposes. This is a land mass equal to all of mid-coast Maine; or the equivalent of 40 entire towns.

By far the largest and fastest growing part is for low-density suburban use. Since 1960 Maine's year-round population has grown by 300,000, and most of that growth – 80%, or the equivalent of 4 cities of Portland -- has been in the low-density suburbs of the 7 southern counties plus the Bangor metropolitan area. This is the hall mark of change in land use in Maine since the 1960s: what we have come to call sprawl.

It is not the decentralization of the population that is new: people have been moving from the urban centers outward for the last century. But in an earlier generation, the decentralization was to compact neighborhoods of distinct human scale, and often within the same municipal boundaries as the urban centers. In Greater Portland these neighborhoods included, for example, Woodfords and Deering Center in Portland, parts of Meetinghouse Hill in South Portland, the northern neighborhoods of Cape Elizabeth, and Wildwood in Cumberland. These places had in common certain telltale features, chief among them: proximity, functional and deliberate open space, civic space, and walkability.

What distinguishes the period since 1960 is the sheer consumption of land. While at the State Planning Office, I estimated that from 1960 to 2000 the amount of land put to use for residential development nearly tripled, while the number of new dwelling units on that land did not quite double. Because so much of Maine is forested, it is hard to appreciate the impact of this smaller-scale phenomenon. Perhaps this statistic will help: In 1960 fewer than one in ten Maine municipalities statewide had hit a threshold of residential density that signaled its end as a rural community – that is, a community organized primarily for production: for forestry, farming, wildlife, and the host of natural functions upon which we all depend. Based on the recent 2000 Census, one in five municipalities statewide now has hit, or by 2010 will hit, that threshold.

More dramatically, nearly 75 towns, or fully one half of all municipalities in the 7 counties of southern and mid-coast Maine, have passed this threshold and, except for the urban places among them, now are organized primarily for consumption rather than production. The low-density suburb is expanding at a rate that could cut the rural towns by half again over the next two decades.

“And so what?” you may ask. The answer brings me back to the Brown-headed Cowbird. The Brown-headed Cowbird has achieved great evolutionary success, but in a unique way. Biologically, it is wired for deception. The female lays her eggs in the nests of other bird species, including several species of woodland warblers and thrushes whose

numbers are in decline. The host parents often don't seem to recognize the difference either in the eggs or the chicks that hatch. They raise the cowbird chick as their own. The cowbird's egg usually hatches a day or two before the host's eggs, which allows the cowbird chick to out compete the host's chicks for food and space. The result is that one or more of the host's chicks usually perish. The victims often are woodland birds that have nested within several hundred meters of the edge between forest and open country, where the cowbird is active.

This is a pretty good metaphor for the relationship of the low-density suburb to the rural land that it abuts. Because it is low-density – which we may define as not being able to see your neighbor from your window, but usually takes the form of 1- to 5- acre house lots – it has the appearance of rural. Quite graciously, the host rural community fails to notice the difference and readily accepts this development. Through its tax dollars it feeds the hungry critter as if it were its own. Soon, this pattern of development is out competing the host community's true rural character – one that is organized for production – and converts the town into a low-density suburb, a place organized for consumption. It looks deceptively the same as the rural place it invaded. But the market forces, land taxes, and suburban attitudes and expectations that come with land organized for consumption end up driving out the original rural host.

And let me give you a couple of examples of how state policy similarly feeds the cowbird with its own subsidies, apparently mistaking the low-density suburbs for poor rural places.

Consider school aid in an S.A.D. in rural Maine consisting of the Washington County towns of East Machias, Cutler, Machiasport, and Whiting. Median household income there is \$29,000. Compare that to S.A.D. 51, made up of Cumberland and North Yarmouth. Their median household income is more than twice as high: \$65,000. The Washington County towns are hungry for economic opportunity and are losing population. Our school funding formula penalizes them for that. In the name of equity but looking suspiciously like parasitism, over the last 10 years the East Machias area has

lost 20% of its student aid, and those funds have flowed to places like Cumberland and North Yarmouth, where aid has doubled.

Urban places are parasitized as well. Consider Augusta and the adjacent suburb of Manchester. Augusta's median household income is just under \$30,000. 15% of its residents live below the poverty line. Its tax rate is close to \$25 per thousand. The property tax burden is 6%. Next door, Manchester's median household income is \$52,000. 2% of its residents live below the poverty line. Its tax rate is \$17 per thousand, and its property tax burden is half of Augusta's. When the state reconstructs Route 202, which runs out Western Ave and through Manchester, Augusta will be required to pay a 15% match for that portion that is located in the city. Once it passes into Manchester, the state will pay 100% and Manchester nothing.

The Brown-headed cowbird does not parasitize other birds' nests maliciously; it is simply making its living and doing what it is genetically programmed to do. As long as good habitat remains, the ecological controls that govern species will find the right balance between cowbirds and their hosts. It is when such habitat is whittled away that the checks and balances are lost and the invader comes to dominate.

Similarly, there is a place and role for the low-density suburb and the benefits it brings – just as there has long been an honored role for its predecessor, the compact, traditional suburban neighborhood. But in our built landscape, there are no checks and balances; indeed, from technology to public subsidies and land use law, there are only incentives to expand—to push the suburban-rural edge ever outward. The result over the last 40 years has been a slow and remorseless transition from a landscape organized for production to one organized for consumption. The low-density suburban landscape is not necessarily unsightly. But it is a landscape full of risk. It reduces and grossly simplifies wildlife habitat. It pollutes water and air, causes traffic congestion, and drives the consumption of energy and other resources. It demands redundancy in government and public facilities, fuels property taxes, and soaks the treasury. It is not just rural land that is parasitized: this pattern of development drains urban places even as it places new

demands on them from commuters and others who use urban services but pay their taxes elsewhere.

The Suburban Mandate

As of this decade, however, the statistics show that we still have some time to put adequate checks and balances into place. Even in southern and mid-coast Maine, there is still time. Why don't we do so?

For one thing, the impacts accrue very slowly—one cowbird at a time, so to speak. By the time a problem arises, such as high property taxes in a once-rural place, or the closing of a neighborhood school or church in an urban center, enough time has gone by between the inception and the recognition of the problem that we don't connect the dots. When a large Catholic church, a landmark on the Portland peninsula, closed several years ago, who linked it to state school and road subsidies in the emerging suburbs?

But the reason is more fundamental than that, and it has to do with how we think about density—or what we think is the right and appropriate number of people or houses to be located near us, within our personal territories. And this thinking has not changed over the last 40 years; if anything, it has calcified into a mandate to sprawl.

On the one hand, we hold to certain myths about high density. These are myths about disease, traffic congestion, and social dysfunction, such as crime. These concerns are part of the very rationale for public regulations that mandate a low-density suburban style of land use. Anti-density sentiments are already old in the United States. They especially arose from the abusive heyday of the industrial revolution; and from the racism that accompanied migrations of southern Blacks and eastern European Jews to northern cities during the late 19th and early 20th centuries. It is not a coincidence that American zoning had its origins during this time.

By the 1960s and 1970s, most of the industrial revolution's public health and safety concerns had been addressed through building and fire codes, technology,

sanitation and medicine, and pollution controls, including enactment of the Clean Water Act. But there were other events in the 1960s with long-term effects on our attitudes toward living compactly. In particular, two huge social movements left a legacy that now shapes our cities and countryside.

These were the civil rights movement and the zero population and environmental movement. In addition to their enormously important legacies of social justice and environmental consciousness, each had the ironic effect of confirming the density myths and sanctioning sprawl. The racial unrest of the 1960s in the central cities was interpreted to be not only the result of injustices, but also of crowding and high residential densities. In Maine it led to prescriptions of lower densities in the suburbs in order to exclude both crowding and minority and low-income households, or at least those who could not afford single family homes financed by the Farmers Home Administration. In 1975, for example, my city of South Portland cut allowable single family residential densities that had stood for many years by more than half, from a traditional suburban density of 6 to 8 units per acre to 2 to 4 units per acre. By 1989, the Town of Cumberland had reduced the allowable density for sewerred lots by seven-fold, from 7 units per acre to 1 unit per acre.

That seemed to many suburban zoners also the right prescription for the environment: spreading out would lighten the impact on the environment and in any case would slow down growth. It was the terrestrial version of “the solution to pollution is dilution.” It also would safely accommodate growth that relied on privately built and maintained underground septic systems, which do need space, saving the town from the headache of extending and maintaining publicly financed sewer systems – a duty that previously had been routinely accepted in urbanizing places.

So, on the one hand, there is a strong predisposition against allowing densities of more than one dwelling unit for each one or two acres. On the other hand, there also is a strong predisposition against requiring very low densities – say, one home per 25 acres -- densities that would so restrict development of rural lands that they would be regarded as

a violation of property rights. Lost in these predispositions is this dual reality: Manmade systems – transportation, utilities, downtowns, affordable housing, and many public and private institutions – require certain threshold densities in order to function well and economically. All indications are that in the small cities and towns that make up most of northern New England, these thresholds are in the range of 4 to 8 dwelling units per acre. At the same time, natural systems and the production that depends on them need the opposite—very low densities—to preserve their functions. All indications are that they cannot easily tolerate more than one home per 20 or 25 acres. Suburban densities fall woefully in between, severely compromising both.

But suburban densities rule the day because they match up perfectly with three sets of values. First, they provide for equal treatment among landowners—allowing each roughly the same opportunity to cash in on his or her land—even if their lands are different in natural capacity and location. Second, they quietly enforce economic exclusion, serving the desire among many homeowners for a sense of security from unwanted uses and people. And third, by segmenting open space into private one-acre chunks, suburban density requirements provide a buffer around individual homes from the nuisances of everyday life—at least until the ATVs show up. So far, these essentially private values trump public values, such as choice of housing, choice in transportation, lower property taxes, good downtowns, and a sustained natural environment.

The rationales of the 1960s—worries about moderate densities leading to crowding, social pathologies, and environmental damage--persist to this day. They have provided the necessary legal cover to justify uniform, one-size-fits-all, low-density zoning, to sanction its spread everywhere, and to resist any reasonable checks and balances.

The Counterattack

This is not to say that between 1960 and today no one has recognized the problem. Many have. The fact that they--we—have not made much of a difference yet does not mean Mainers will fail to take corrective action over the next decade. The

cumulative impacts of sprawl began to be noticed in Maine in the mid-1980s, and since then several foundations for change have been laid. Among the most important were the following five, in rough chronological order:

First was enactment in the late 1980s of the state's Growth Management Act. Though largely voluntary, it elevated the role of good comprehensive planning. It specifically set as a goal the prevention of development sprawl, and it re-established a legitimate state interest in town planning and development.

Second was the burgeoning of the land trust and land preservation movement. In addition to statewide organizations such as The Nature Conservancy and the Maine Coast Heritage Trust, there are now 95 local land trusts. They are evidence of the public's commitment to funding land preservation, including \$88 million through the Land for Maine's Future Program since it was established in 1987. The land trusts are not yet effective agents for stemming sprawl. Their focus has been on unique lands or lands of particular natural resource or amenity value, not on the greenbelt-types of purchases that will contain sprawl. Sometimes they have been motivated more by a NIMBYism that promotes rather than contains sprawl. But the network of land trusts holds enormous potential to check the unbridled conversion of rural land to suburban use.

Third was an environmental risk project sponsored by the state and carried out in the first half of the 1990s by the organization Eco-Eco. Eco-Eco is a coalition of environmental and business interests sponsored by the College of the Atlantic and directed by Ted Koffman, now a state legislator and co-chair of the Natural Resources Committee. Though the results of Eco-Eco's analysis of environmental risks are fading with time, it produced at least one lasting result. For the very first time it fixed in the minds of the major environmental organizations of the state that our spreading-out pattern of development underlies several of the high-risk areas of the environment, including pollution of groundwater, fertilization of lakes and estuaries, nonpoint source air pollution, and loss of wildlife habitat.

Fourth is the political organization of the service center communities. As a whole these communities have property tax burdens and rates of poverty well above their suburban neighbors. Yet public policy treats them as if they were still centers of personal wealth and the suburbs as if they were still the poor country cousins. The taxpayers of the hub communities are called upon to subsidize many of the suburban demands for services—from sheriff patrols to new schools—while also carrying their own. There are signs that the hub communities have had it. In 2001 they formally organized into a political coalition. As it turns out, the self-interests of the service center communities line up well with the goal of reducing suburban sprawl.

Fifth is rebirth of the concept of The Great American Neighborhood. If there is to be a check on sprawl, the public has to be convinced that there is an alternative—an alternative that doesn't just say "more density," but one that also says, "good design." The alternative to sprawl can not be sold if it means sacrificing the goals of the suburbanite—namely, control over one's surroundings, access to open space, and a good place to raise a family. The State Planning Office, drawing on the tradition of many good neighborhoods in small-town Maine, has introduced such a blueprint. Developers want to build it and the market is ready to buy it. The remaining high hurdle is the suburban zoning ordinances that systematically ban it.

Conclusion

Whether an effective counterattack on sprawl takes shape over the next decade depends on seeing the low-density suburb in a more complete light. The low-density suburb is a middle landscape where Maine's personal wealth is now concentrated, a tribute to a lifestyle that emphasizes family, privacy, open space, and sameness; that has the power to out-compete rural uses like woodlots, farms, and wildlife habitat and will whenever the opportunity arises; that still depends on urban centers for jobs and services; and that has the political power and, as a rural impostor, the guise and guile to extract subsidies from its neighbors, even those that are less well off—subsidies that feed the cycle of sprawl.

If we as a state wanted to find three ways to build in checks and balances in this suburbanizing landscape, they would be:

- First, squeeze the state subsidies out of sprawl. This will be politically difficult and perhaps impossible because the balance of power now rests in the suburbs. It will happen only if rural legislators finally see the difference between rural and suburban—finally spot the cowbirds among them--and ally themselves with service center legislators out of common interest to form an urban-rural majority.
- Second, plan, tax, and regulate land on a regional basis, at a landscape scale that gives the low-density suburb its due but that also protects expanses of rural lands and keeps hub communities vital. These need not be large regions that create distance between the people and their local governments. Even small groupings of municipalities, treating land under a single set of rules and tax policies, will work; and
- Third, increase the choice of housing and choice of lifestyle by reforming exclusionary zoning ordinances. If necessary, we should enact state law to end the ban on well designed, environmentally responsible traditional neighborhood development – developments we have no business prohibiting under the guise of public health, safety, and welfare.

In 1829 Moses Greenleaf, in his *Survey of the State of Maine*, wrote that there would come a time when the population of Maine would no longer be able to “diffuse itself at pleasure.” He didn’t predict when that time would come, but 175 years later, it has arrived. The way a society uses its land is the very best reflection of the values that it holds dear. From now on, the public debate must be about the right balance between often conflicting values – values bound up in lands organized for production and exchange versus land organized for consumption.