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Lawn People

How Grasses, Weeds, and Chemicals Make Us Who We Are

By
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CHAPTER 1

Explaining Lawn People

WE SPOKE WITH SUZANNE at her home in 2001. A resident of a small Midwestern subdevelopment, she told us about her problems with lawn care, especially chemicals, and how she and her family have reconciled themselves to their use, despite disturbing effects.

> One of our dogs was very allergic to the [lawn chemical] treatment. In the spring when they would start to fertilize, his paws would just get raw and bleed. We would have to take him to the vet two or three times a week and they would do these whirlpool treatments and finally we realized it was the lawn chemicals. So, for a couple of days after we had the grass done we would put these little booties on the dog. Otherwise it would really hurt him, and he would just bite and chew at his paws and they would bleed all over the place. We felt so badly for him.

Clearly, Suzanne and her family were not insensitive to the plight of the animal and the alternate solution they devised–dog booties–makes a certain kind of sense, but only if changing lawn care practices and priorities is overlooked entirely, along with the possible implications that these treatments might have for people in the household or children in the neighborhood. Why not stop using pesticides? Is it something peculiar about Suzanne?

A Profile of Lawn People

For decades, researchers in environmental sociology, geography, and marketing have attempted to explain these kinds of behaviors, along with the embrace of alternatives. Empirically comparing ecologically motivated consumers ("greens")

with environmentally disinclined ones ("browns"), this research has tried to explain a range of behaviors such as purchasing green products, recycling, or engaging in environmentally related political action. Generally, the approach tests sociodemographic (rich/poor), geographic (North/South), partisan (Republican/Democrat), and personality (selfless/selfish) characteristics to see what kinds of people behave in what sorts of ways.[1]

Studies suggest, for example, that women, older people, more highly educated people, and people from higher social classes engage in more environmentally protective behavior than men and less-educated people or those of poorer social class.[2] People residing in areas of higher property values have been shown to be more likely to recycle and donate to altruistic causes.[3] Urbanites appear to claim greater environmental concern than rural residents, though this gap closes when actual behaviors are examined.[4] Based on this kind of previous research, one might predict that demographic, geographic, personality, and community characteristics all combine to make people behave the way they do. If we are to believe these kinds of sociodemographics of green behavior, a profile of a high-intensity, lawn chemical user *should* look something like this: males, older people, less educated people, or people with lower incomes should be more likely to use lawn chemicals than females, younger people, or people with higher education and incomes. Rural residents and people in Southern and Western census regions should be more likely to use lawn chemicals than urban residents and people in Midwestern and Northeastern census regions. People who believe that residential lawn care behaviors have no impact on water quality should be more likely to use them than people who are environmentally informed and believe that residential lawn care behaviors do affect water quality problems.

The results of our own national survey (see Chapter 6 and Appendix B for more details) present a totally inverse picture and contradict the expectations outlined above. The positive and negative directions of statistically significant relationships are summarized in Table 1.1.

The survey results show that whether someone uses lawn chemicals (professional lawn care, do-it-yourself chemicals, or both) is related to all of the influences described above (region, neighborhood, and environmental concerns), but in almost the reverse of the expectations laid out previously. Lawn chemical users tend to have higher income and higher housing values, be better educated, and be older than nonusers. They live in nonrural (urban or suburban) settings, more often in the Midwest and South than the Northeast or West. They are also more likely to have neighbors that use chemical inputs.

What is perhaps most remarkable is that people who use chemicals on their lawn tend to be more likely to believe that lawn care has a negative effect on local water quality than people who do not. This somewhat counterintuitive finding (consider that those who do *not* claim lawn chemicals are a problem are less likely to actually use them!) certainly suggests that values and ideas (what

TABLE 1.1 Predictors of U.S. Lawn Chemical Use: Direction of significant relationship, positive (+) or negative (−)

Parameter	Chemical Use
Income	+
Rural	−
Neighbors use lawn chemicals	+
Housing Value	+
Education	+
Claim that lawn chemicals generally have a negative impact on local water quality	+
Claim that lawn-care services have a negative impact on local water quality	+
Claim that neighbors' lawn care practices have a negative impact on local water quality	+
South or Midwest	+
Age	+

people believe) do not translate into behaviors (what people do). As a general profile, people who use chemicals do so despite claiming they have negative impact, especially if their neighbors use chemicals. These people either claim hat there is a negative impact but do not *care*, or they act despite their misgivings. As we shall demonstrate later, the latter attitude is far more common han the former one; lawn people worry a lot about what they do, although their ehavior is not always altered by that belief.

Clearly, Suzanne is in no way aberrant. Something is at work on her that puts e lawn before the dog, which allows her to reconcile potential evidence of more eneral risk, and which forces her to live simultaneously with her lawn and her xiety. Well-educated, affluent, and fully cognizant of a technological hazard, e chooses to maintain her current practices rather than seek out alternatives.

Lawn chemical use is only one facet of lawn care, of course, and myriad other haviors are relevant to understanding people's relationships with their lawns. this initial result already upsets some simple assumptions about people's oughts and actions, and raises some straightforward questions. What makes n people act this way? What influences their behaviors? How do people recile the complex outcomes of their decisions?

nterrogating Assumptions in Apolitical Ecology

he ability to explain beliefs and practices like these is diminished by several ypical assumptions that we tend make about human beings and their environmental behaviors. Specifically, there is a tendency to think about lawns, and

other landscapes and practices, in a largely *apolitical* way. Political thinking is taken to mean here, simply, the view that decisions and behaviors are free from coercion, suggestion, power, and exploitation. Apolitical ecology, the dominant approach to thinking about the things people do and the places people make, includes several more specific tendencies, including (1) a focus on free individual *choices*, (2) a propensity to assign *culture* a driving role in understanding group behavior, (3) a predisposition to think of economic activities and the behavior of firms as meeting consumer *demand*, and (4) an inclination to think about human actions, whether those of individuals or companies, as *sovereign* relative to the influence of nonhuman actors, objects, and animals. Each are worth considering in turn.

First, apolitical ecology holds that most outcomes, ecological or otherwise, are the product of choices. People choose to recycle or they do not, to commute to work or not, to use responsibly produced products or not. Similarly in this way of thinking, companies choose to make their products safer, choose methods of advertising, and choose the prices and characteristics of their products. Indeed, choice is such a fundamental assumption about human behavior that it is hard to imagine any other way of thinking about what we do. This view also influences how we think about ecological reform. To make a cleaner, safer, less toxic world, individuals must be supplied with more and better information about hazards, hidden impacts, and invisible costs. With better knowledge will come better behavior.

Where we admit that people's behaviors may be less than fully "rational," there is a further tendency to think about aberrant, regional, or specific kinds of behaviors as expressions of "culture." Culture, in this case, is taken to mean the way certain groups of people do things—habits of action and understanding shared by communities, families, tribes, states, and nations. These, in turn, are understood to produce certain kinds of landscapes—social and natural environments that express something not just about individual decisions, but a collective identity.

From an apolitical way of thinking, moreover, economic actors (specifically, people and firms who supply goods and services to individuals), do so in an effort to meet, or perhaps exploit, the already existing demands of individuals and culture groups. These firms, it is also generally assumed, have a certain range of free choice themselves, and can produce safe or dangerous products, preserve or destroy ecosystems, and decrease or maintain risk, just as they please. Finally, there is a tendency in apolitical ecological thinking to consider people–human beings–as the sole sovereign actors in creating and maintaining the world around them. In this way of thinking, if nonhuman nature ever had influence or power over people it was only in the remote past, before absolute dominion was eventually obtained by humanity, at least in the world of human affairs.

For understanding the lawn, this apolitical way of thinking has several implications. First, it suggests that people freely choose to have [illegible] and care

for lawns. Second, it means that this desire (to the degree that it overrides some rational thinking on the part of individuals) is born of a collective culture, specifically something deeply "American." Third, it means that this nearly timeless individual and collective demand is met by an industry that has inevitably grown to meet that demand, spawning a multibillion dollar economic sector driven by consumer desire. Finally, it suggests that the lawn is not natural in any sense, but is a wholly manufactured and humanized landscape. It is influenced and quite literally produced by people and companies who are not, in any meaningful way, influenced in return by the passive grasses from which the lawn is constituted.

But in the hesitant practices of lawn people lies a hint that things are not always so apolitical as they might immediately seem. Clearly people who participate in intensive lawn care, as described previously, have mixed desires, and indeed feel more ambivalence about lawn care than those who do not. This suggests outside influences on free choice, if not outright coercion. More generally, there are theoretical reasons to imagine that apolitical ways of thinking about behavior, culture, economy, nature, and risk, are problematic. Concepts and evidence from "political ecology," an alternative way of thinking about the power-laden nature of human interactions with the environment, undermine notions of choice, freedom, culture, and the autonomy and impotence of the nonhuman world.[5]

Do People Get to Choose What They Do, or Even What They Want?

It is perhaps inevitable that we imagine ourselves creatures of choice, especially in contemporary America. Stores are filled with a dazzling array of consumer options. The general affluence of North American people give them enhanced freedoms of choice, as do the promises of democratic government. Environmentally, people clearly make decisions every day: to drive, walk, or take the bus; to recycle or simply throw away the trash; and to apply or not apply chemicals to their lawn.

Sociobehavioral research starting from this assumption of free choice has tried in the past to examine why having or expressing concerns about the environment generally fails to actually coincide with what people really do, whether that is recycling, donation, or conservation.[6] People who "talk green" may fail to "act green" because they lack full information or may be skeptical of information,[7] because they believe that environmental problems are too complex to be solved by individual action,[8] or because they believe that environmental protection is the responsibility of the government.[9]

Research like this has been criticized for poor sampling, obsolete data, inflation of attitudes with behavior, and conflicting results.[10] It has also been subject to the complaint that environmental consciousness has become so

mainstream in modern society that environmental concern cannot be assigned to certain demographic groups.[11] Green consumer studies are also hindered by a lack of specificity. People with a general concern for global environmental problems such as climate change or wildlife extinction may be fully unaware of local environmental issues like groundwater pollution, especially when they are not directly affected by such problems.[12] At the same time, concern for the environment takes many forms, including the belief that the balance of nature should not be disturbed, or that economic growth has limits, or that certain relationships between humans and nature are ordained by God, or that humans must change to meet nature's demands.[13] Compressing these beliefs into a single measure of environmental concern masks the relationship between environmental attitude and behavior.

Whatever problems such research may have on its own terms, political ecology questions the approach altogether and begins from an different point of view. Specifically, research in this field has directed itself to the fact that individual actions are not the result of "free" decisions by any means. Commuters are forced by rents and housing costs to live further and further from their places of work, resulting in more drive time, more fuel use, and more carbon emission. Increased packaging of almost every imaginable consumer item means a mounting pile of garbage for households to sort, recycle, destroy, or dump, all on their own time. Urban residents of the United States are far more likely to think themselves masters of their own destiny than people living elsewhere in the globe, but it is increasingly clear that the range of choices open to even the most apparently wealthy and powerful people in the world is severely restricted. Although political ecologists Piers Blaikie and Harold Brookfield originally intended their comments to describe rural peasant producers, their twenty-year-old assertion remains cogent: any explanation of local phenomenon (e.g., application of lawn chemicals) is nested within a wider context of pressures and coercions. Their claim that "there is no 'correct' scale for an investigation of land managers and their decisions"[14] is as true for the lawn manager in Ohio as it is for the grower of millet in India. Any meaningful explanation of human behaviors, they suggest, must follow a chain, which:

> starts with the land managers and their direct relations with the land (crop rotations, fuelwood use, stocking densities, capital investment and so on). The next link concerns their relations with each other, other land users, and groups in the wider society who affect them in any way, which in turn determines land management. The state and the world economy constitute the last links in the chain.[15]

In other words, lawn people may make their own landscapes, but not always the landscapes of their own choosing (in a geographic paraphrase of Karl Marx).[16] The constraints in such arrangements begin to appear as soon as one starts looking for them; in the household, in the community, in the marketplace, in the rules and laws of the state, in the restrictions and opportunities available at any number of levels.

As a result, just as Blaikie and Brookfield long ago insisted for the interpretation of agricultural land use practices, castigation of lawn people as "ignorant," "stupid," and "conservative" misses the point, in so far as they operate within boundaries and constraints, and because "where there is a known set of practices and behavioral responses, it is . . . much easier for the [manager] to adhere to an established pattern than to make changes." What we need to understand and empirically evaluate in the case of the lawn then (as we explore in this volume), are the contextual pressures of real estate, community, and municipality, which may or may not together *enforce* high-input lawn care choices.[17]

More forcefully, it might also be suggested that even these enforced "choices" reflect no real freedom for these practitioners. As some critical materialist philosophers suggest instead, the intentions, plans, and concepts of the future these individuals hold–which are all prerequisite to making choices–might be seen as *consequences* of social processes rather than as causes. That is, what people want might in and of itself be a product of who they are and the role they play in the society and economy.[18]

This is not to say that people do not take action, nor make history happen. Nor is it to say that people want things because they are told to want them. Instead, a political ecology of lawn people asks us to look at our actions and desires differently than we typically do, by assessing our role in occupying certain political places and serving certain economic functions. It is somewhat disturbing to think of ourselves in this way, of course, but as we shall see below, it opens the possibility of admitting the power certain things (like lawns) often have over us.

Are Landscapes Expressions of Culture?

Your choices are not unconstrained and the scope of what we desire may be somewhat circumscribed, it might be tempting to think that our "culture"–the way of thinking and doing in which we were raised and live–might be the central influence on us. We make and create things, it would be sensible to assume, the way people within our culture do.

Following this line of thinking, common sense thinking as well as generations of good academic scholarship has tended to view landscapes like lawns as "cultural." Landscapes–those assemblages of buildings, plants, machines, infrastructure, light, color, and sound that provide the backdrop for our myriad daily actions–can be viewed as being shaped by human action, but usually in the constantly reinforced patterns of our larger community. In this way of thinking, certain kinds of people, from particular cultural backgrounds, tend to produce and live in certain kinds of landscapes. Amish people produce Amish

landscapes. Chinese produce Chinese landscapes. Americans produce American landscapes.

Such an apolitical perspective on culture lends itself to a specific view of the lawn. The lawn landscape, although not unique to America, does appear to predominate here in a way that it does not even in its regions of origin in the Old World. Americans have tendencies, such as being gregarious and neighborly and romantic about yeoman farming, which are unique to their history on this continent and which might make their desire for lawns seem almost inevitable. In this way of thinking, American Lawns are an outward, unconscious, expression of American collective psyche.

But even the Scotts company, a dominant firm in lawn care chemicals and services, insists in its own messages to shareholders and consumers that "beautiful lawns don't just happen."[19] To make this landscape normal, as we shall see, requires repeated representation both of the aesthetic ideal and the enormous battery of consumer goods and services that make it possible. This closely echoes the thinking of geographer Don Mitchell, who observes that distinct, meaningful, cultural objects like the modern lawn "are actively *made*," that culture is not just a "realm" but also an industry, and that cultural representation usually furthers political and economic effects and purposes.[20]

And following on the related work of sociologist Sharon Zukin, average consumers and homeowners are not the only people who produce and reproduce these cultures. In the case of the lawn, advertisers, investors, chemical lab technicians, developers, and a host of other players provide the "critical infrastructure" that makes this landscape not only possible, but also impossible to unimagine.[21] A large cast of characters and objects together act to give cultural meaning to turfgrass, all as part of a larger system of economic production.

For theorists like Antonio Gramsci, upon whom both Mitchell and Zukin draw, apparently willing participation in practices like applying lawn chemicals—practices that make us uneasy or indeed fill us with dread—test the boundaries between consent and coercion. As queried above, how much have we "chosen" to act as we do? Moreover, coming to call such coercion "cultural" begins to seem more problematic, indeed somewhat sinister. Gramsci refers to the enforcement of consent, in such cases, as evidence of *hegemony*: the pervasive power to turn enforcement into something that appears to happen "spontaneously," or is uncritically experienced as something inevitable, something like "culture."[22] In sum, culture and the industries of cultural production that undergird it can be understood as being inextricably linked not only to the economy that they serve to perpetuate, but also to hegemonic habits that cause us to take them for granted, to make them "cultural" in the first place. In a political ecological view of the lawn then, the very insistence on the cultural aspects of lawn maintenance is essential for rendering invisible its political and economic core,

including the coercive requirements in maintaining the landscape and the industry such behaviors support.

Are Hazards an Accidental Byproduct of Capitalist Ecology?

But the landscapes we produce, cultural or otherwise, are not simply ideas, representations, or even exchanges of capital. Rather, they have concrete material characteristics and effects. In the case of lawn people, what is notable about the material nature of this aesthetic is that it is perceived as physically bad for water quality (and dogs, and children, as we shall see) by the people who maintain it. This raises questions about hazards and the accepting of risk.

A "hazard" refers to objects or processes, whether "human made" (nuclear waste) or natural (volcanic gases), that might harm people or the ecosystems on which they depend, and will be used in this text specifically to refer to real or potential undesirable problems that come from maintaining a lawn, especially chemical externalities.[23] "Risk," on the other hand, refers to the probability of a (typically negative) outcome occurring, or more generally encompasses the way people think about and calculate their behaviors with a knowledge, however uncertain, of potentially negative outcomes for themselves or the world around them.[24] In considering lawn people then, as described briefly above, we see a type of individual who acknowledges a potential hazard in lawn maintenance behavior, but whose risk calculation involves the decision to continue such behavior nonetheless.

But as we shall see, many of us do take risky actions with a vague trust (even by somewhat apolitical thinking) that companies and service providers would not knowingly put them at risk. Even assuming so critical a configuration of culture and economy as explored above, where lawn culture may be perpetuated to serve narrow economic interests, it is indeed hard to imagine a system in which an economy would inflict actual hazards upon the consumers and environments upon whom it depends for survival.

Certainly the lawn chemical industry is adamant on both this point and its underlying logic. James Allen, Executive Director of "Responsible Industry for Land Environment," a standing committee of the pesticide industry's association, insists not only that lawn chemicals are safe, but are tested some 120 times before release, ". . . lawn chemicals add more than beauty. They have health and environmental benefits as well."[25] This is more than sloganeering; the essential logic of apolitical free market environmentalism holds that the producer of a product designed to protect a landscape or resource would certainly be uncompetitive if the result were the reverse. To the degree that hazards are possible outcomes of certain facets of industrial ecology, these can be relegated to factors beyond the control of the seller: consumers may use products in an incorrect or irresponsible fashion, for example by applying excessive chemicals

and failing to follow safety instructions. Or in a worst case, such negligent externalities, in the form of hazards to consumers or the environment, might be seen as the unfortunate risk choices of a few bad apples, negligent firms acting outside the realm of capitalist logic and ethics.

Critical economic theory, however, is less sanguine on the illogic of industrial hazards to the environment. For observers like theorist James O'Connor, it is clear that "capital"—including investors, companies, and those who operate and plan for them, no matter how well-meaning—is essentially incapable of "preventing itself from impairing its own conditions."[26] This is because the economy tends to be constantly riddled by crisis. As the ongoing stress of competition tends to cause prices to fall, uncompetitive firms disappear and survivors continue to innovate ways of shedding costs and responsibilities. Just like consumers, investors, owners, advertisers, and planners, guided by even the most sharpened corporate ethics, must operate under conditions that are not entirely (or even partly) under their control.

For producers especially the cheapest and most efficient techniques must be embraced, and costs must constantly be shed. These costs include a huge range of enormous expenses for which insufficient revenue exists, including expenses:

> to cleanup or repair the legacy of ecological destruction from the past; monies required to invent, develop, and produce synthetics and "natural" substitutes as means and objects of production and consumption; the huge sums required to pay off oil sheiks and energy companies (e.g., ground rent and monopoly profit); the garbage disposal costs; the extra costs of congested urban space . . .[27]

In this way of thinking, such costs, including especially the costs potentially coming from risky production, must either be realized in corporate reinvestment, borne willingly by the broader public, or ignored altogether. Given the profoundly competitive state of globalized trade, the first option is impossible, the second increasingly rare, and the third not only logical but increasingly inevitable.

At the same time, however, critical approaches to environmental impact suggest that such costs are never borne evenly. Congestion, pollution, and the urban hazards produced by economic growth have repeatedly been demonstrated to seek out the most politically and economically disempowered communities,[28] as well as environments for which there have historically been few vocal representatives (e.g., wetlands–formerly known as "swamps"). As Erik Swyngedouw observes then, there is no such thing as the unsustainable city in general, but there are a series of urban and environmental processes that negatively affect some social groups while benefiting others. A just urban socio-environmental perspective, therefore, always needs to consider the question of who gains and who pays . . .[29]

What might this mean for lawn care? It suggests that lawn chemicals and other inputs might represent a solution for increasingly competitive global markets looking for buyers of available goods and services. And excessive sales and usage of such inputs, rather than being bad for business, may be one of the few avenues to sustain economic growth in larger global energy and chemical sectors. Rather than an incidental outcome of bad corporate behavior, chemical hazards may be the inevitable consequence of decisions made by perfectly rational and well-meaning economic players. The distribution of such hazards, moreover, may be unevenly realized throughout the city, or externalized further out into environments beyond the urban boundary.

But the diffuse nature of contemporary hazards and the uncertainty surrounding them poses a final further problem for understanding lawn people. Specifically, modern urban people inhabit what Ulrich Beck describes as a "Risk Society." This means that there are a great many new and previously undreamed hazards in contemporary life (man-made herbicides and pesticides among them), but also that society more generally has geared towards calculating and managing those hazards both by creating a new technical knowledge elite and also by "individuating" risk decisions.[30] Individuation is here understood to mean the way "people are invited to constitute themselves as individuals: to plan, understand, design themselves as individuals and, should they fail, to blame themselves."[31] Their increasingly complex risk decisions become part of their biographies, moreover, part of defining who they are (e.g., "environmentalists," "conservatives," or "good neighbors").

Combining this insight with the critical economy of O'Connor, a clear pattern emerges. Under tightening economic conditions and in the face of crises, producers may not only be forced to shift increasing hazards downwards and outwards to consumers and workers, but also to present contemporary urban residents, like lawn people, with increasingly complex risk choices, the burden of which is increasingly the individual's to sort out, internalize, and live with.

In sum, if viewed apolitically, the problem of chemical hazards tends not to include considerations of (1) who gains and loses in risk decisions, (2) what logics and forces act on firms making such decisions, and (3) what responsibilities contemporary consumers are increasingly faced with, under the conditions of risk and uncertainty that result. A political approach to the risk ecology of the lawn, which addresses all these issues, seems relevant for understanding the problem.

Nonhuman Nature an Inactive Player in Urban Life?

A final problem in apolitical thinking about ecology takes the form of common assumptions about the environment itself. It is quite normal for most of us to think about "nature" as something that is both *outside the city* and as something, even where it is present, that is passively *molded* by human action.

In the first case, the concepts of "urban," "city," and "society" have typically been contrasted with their inverse "others"–"rural," "country," and "nature." Historically, these oppositional categories actually emerged in the process of urbanization itself, through literary and cultural expressions during the era of industrialization.[32] Such oppositional thinking persists in our own lives. Trying to get far from the city and "get away" to nature on our vacations, we constantly remind ourselves of these binaries and distinctions.

But this habit of thinking is just that, a habit. As Matthew Gandy reminds us in *Concrete and Clay*, his environmental history of New York City,

> It is paradoxically in the most urban of settings that one becomes powerfully aware of the enduring beauty and utility of nature. It is the reshaping of nature that has made civilized urban life possible. Nature has a social and cultural history that has enriched countless dimensions of the urban experience. The design, use, and meaning of urban space involves the transformation of nature into a new synthesis.[33]

Indeed, a growing body of urban history has come to emphasize the way cities are nothing but nature–metals, glass, and water–flowing through political and economic conduits. These previously free materials become "fixed" in the built environment but are very much a part of the social and political life of urban areas. Thinking this way, we can begin to see the lawn as a crystallized form of these raw natural materials and ecological forces, tempered, constrained, and spread across neighborhoods during the process of urban growth and housing development.[34]

Of course, nature is more than just passive, manipulated, resources. In reality, uncontrolled nature, or wilderness, exists all around us, pushing through the cracks in the sidewalk, nesting in the trees of vacant lots, and prowling the dusty hills outside of subdivisions. As William Cronon famously observed, our ongoing urge to scan the vistas of "authentic wilderness"–jagged mountains and dense forests–has blinded us to the nature all around us. In admiring the "wildernesses" close to home, including abandoned farms and neighborhood ponds, he explains: "What I celebrate about such places is not just their wildness, though that certainly is among their most important qualities; what I celebrate even more is that they remind us of the wildness in our own backyards, of the nature that is all around us if only we have eyes to see it."[35]

Many of these wild places and conditions are quite unintended outcomes of our own actions. Urban people are constantly making incidental natures, interacting with nonhuman species to create environmental outcomes of startling complexity. The lesser kestrel, a bird of prey currently on the brink of extinction, thrives in some cities of the Middle East, where it nests in clay roof tiles in areas of urban growth, just as the recovery of the peregrine falcon, a threatened species in the United states, is partly predicated on its New York City

rooftop nests.The dramatic return of many northern shortgrass prairie species to the Rocky Mountain Front Range, including the bald eagle, is in part enabled by the closure of Rocky Mountain Arsenal, a military toxic dump only eleven miles from Denver Colorado now teeming with wildlife.

More radically, these nonhumans might be viewed as active agents, players in society, politics, and economy, who act outside of our volition to surprising effect, sharing our urban world but also transforming it. For this reason, Jennifer Wolch has come to describe the city as "Zoöpolis," a city of many species. Whereas urbanization puts animals at risk by driving them from the landscape and fragmenting their habitats, she points out that with urban growth an "animal town" emerges that shapes the city itself by attracting and repelling development and forcing interactions on people who can no longer insist on the clean partition between human and nonhuman habitat. Cougars prowl the subdivisions of the Santa Monica Mountains, with economic implications for the real estate industry that brought people and the big cats into increasing contact in the first place.[36]

In this sense, we might think of the lawn not simply as an ecological *product* of human action, aesthetics, and economics. Instead it is an environmental *actor* that forces behaviors, adaptations, and adjustments not only on individuals, but on whole municipal economies, and on the practices of firms that feed, grow, and tend them. Such an actor might be seen to behave and misbehave in constant interaction with the homeowner and other species (earthworms, grubs, and dandelions most notably). To do so suggests understanding the lawn as autonomous, following its own rules and taking advantage of sociopolitical circumstances even as it is itself taken advantage of by other actors.

As theorist of science Bruno Latour describes microbes, for example, such understanding raises questions about any simple explanation of political and economic history where one human actor or group is said to have their way over another. "There are not only social relations, relations between man and man. Society is not just made up of men, for everywhere microbes intervene and . . ." Explaining their interactions in the world of humanity, Latour explains, the microbes "form alliances that complicate those relations in a terrible way."[37] And as we shall see, the demands of turfgrasses are an immediate and profound influence on homeowners, which set people about tasks that keep them busy throughout the growing season. Given the labor performed by people for other domesticated crop species, as Denis Wood has asked regarding cereal grains–especially maize, which cannot reproduce on its own without its human servants–"who's to say which species has domesticated which?"[38]

The Mutual Tyrannies of Urban Political Ecology

To say this, however, is to say more than that there is a "tyranny" of the lawn over people, an often-asserted comment that only scratches the surface of the problem. At the same time that lawn grasses are obediently served by

homeowners, the explosive growth of grass provides opportunities for other actors, especially those in the lawn care industry, who literally capitalize on grass's ubiquity in order to turn local community desires into profits. Simultaneously, however, the fickle habits of grasses may present obstacles and problems for firms who would try to profit from them; those firms are forced to constantly to adapt and alter their strategies. The emergent picture is that of a system of objects; firms, communities, and people are chained together in such a way that they tyrannize one another.

In such a network of associations, each of the separate pieces is not independent, but is instead made to be the way it is by virtue of its relationship to all the other parts. In this way, the term *network* might be used in the sense offered by Latour: It is both a process with its own momentum that gathers together, enrolls, and connects human and nonhuman actors (people, grasses, chemical companies) under its own momentum; and an "achievement" that stabilizes when all the varying actors are in place. In such a network, individuals or organisms do not have free "agency" (will and capacity of their own), but are instead given the capacity or incapacity to act only by virtue of their position in a complex of different elements. In such a model, "power," as Murdoch observes, "lies not in the properties of actors but in the relationship established between them." Nor is the identity of each actor independently formed and then joined to the whole. Instead, each becomes what it is through its specific relation to the other, through a process academic theorists describe as "translation." As Donna Haraway insists, "through their reaching into one another, through their 'prehensions' or graspings, beings constitute each other and themselves. Beings do not pre-exist their relatings."[39]

This notion of power (which reflects the approach of Michel Foucault)[40] means that one actor can no more volunteer to change the system than it can to change itself. It also means, however, that transformations can occur at a range of scales and locations, not simply at some central location, contrary to the hierarchical assumptions of some social science theory, where large-scale global actors are assumed to dominate and explain local effects and conditions. A single community–a set of local ecological conditions or political institutions–can transform itself and its role in the larger system, creating momentum for regional effects, enrolling and transforming other actors. This approach to social, political, and economic causes and effects is skeptical of the hierarchy of scale and the top-down tendencies typical of most explanations in the social sciences.

Lawn People: "Interpellation" of a Political and Economic Subject

Taken together, this proposition that the lawn is a political and economic network also should provide us with a better portrait of ourselves. But this is not because by seeing the lawn we are seeing an external expression of something

internal to us. Rather it is because the lawn, among myriad other objects of daily life, constitutes who we are. In daily life, this means that personal identity, the way people imagine themselves as members of their families and communities, might be as much a product as a driver of lawn care.

To begin to understand how this might work, we need to think of the role of ideology in guiding both our behaviors and our sense of self. No one does anything (including lawn care) simply because someone else tells them to. There must be some tacit *idea*, based on one's notion of oneself, that such actions are right and good. There must be some process, moreover, where people are called upon to be right and good, where this makes them upstanding citizens and where such citizenship comes to be associated with these few specific performances of good neighborliness. This system of ideas, this ideology, must seem natural and indeed essential to us as people, otherwise mounting anxieties (about chemical application as one obvious example) might cause us to think twice.

The dominant system of ideas prevailing in a society, its *ideology*, according to Louis Althusser,[41] functions by appearing nonideological–indeed by denying and repelling its own ideological character. It cannot be ideology if we think of it that way; it must be intuitive (or from within), not an idea from without. Likewise, we must feel that only other people (Economics professors, AM talk radio hosts, communists) have ideologies, never ourselves.

Moreover, Althusser argues, such systems of ideas must be material, not just synapses in the brain, since they are embodied, institutionalized, repeated, and lived. You have to act them out. Social agents have ideas (e.g., lawn aesthetics) but these are also actions (e.g., chemical application) and part of a practice (e.g., lawn care). These practices, Althusser adds, in his somewhat off-putting mechanical terminology, are defined by the *material ideological apparatus*, a whole system of ideas through which the elements of the economy (labor, chemicals, surpluses, etc.) are represented back to individuals as a necessity and a sensible, immediate, daily way of life (home, community, and nature).[42]

As such, Althusser insists in his essay *Ideology and Ideological State Apparatuses*, all this ideology can only operate by constituting individuals as *subjects*. The term "subject" has critical dual meaning here. It asserts "free" subjectivity and an actor who acts freely–as in the subject of a sentence–while simultaneously implying a "subjected being, who submits to a higher authority." This dual identity is essential to the function of ideology to erase the ideological character of the economy. The individual as subject must act freely while submitting fully. Subjects must "work by themselves" without evident coercion. Only then can the system of production and flow of surplus from the economy (to lawns and chemical firms for example) remain stable.[43]

Althusser further argues that the mechanisms through which social participants are called upon, "trained," and "have their roles assigned" to them in a capitalist society require a process of recognition, where the subject comes to recognize herself as a subject and responds accordingly. The subject must be

"hailed," literally (from the French) named, recognized, and most importantly self-recognized, or in Althusser's term: *interpellated*. In explaining this concept, Althusser draws on the example of a policeman calling to an individual on the street; in the moment the individual turns in recognition of the call, guiltily, he become the subject.[44] This explanation seems compelling for social structures such as law enforcement, or perhaps the Church, since it helps us to understand how apparently noneconomic institutions produce economic effects by assigning stable roles to subjects, who then go about playing their roles in capitalist society. Yet it really says very little about the daily interactions that actually dominate people's lives and human behaviors in nature, economy, and community. In the case of vast ecologies, what does the interpellating? Not the Church, nor the police. Who calls to the lawn chemical user so that they consistently respond as lawn workers? Whose voice does the lawn owner hear as they open the door and look out on the grass, checking the moisture to determine whether it is time to mow?

We hope to demonstrate here that it may be the lawn itself. Desire and diazinon are demanded by lawns, if not by the grasses that constitute them. When the lawn needs cutting, when wild mints or fungi rival its constituent species, when it becomes dry, its signals are apparent to homeowners, whose response is an act of subjection, not only to the lawn, but also to the ideology of community and the international economy of turf maintenance.

So, in gazing into their landscapes, responding to the demands of the grass, and answering these calls, individuals become new kinds of political and economic subjects. As the turf draws its demands from the culture and the community, it helps to mold the capitalist economy into specific forms, and helps to produce peculiar kinds of people–Turfgrass Subjects. It is only these sorts of subjects who can together constitute lawn communities and produce lawn chemical economies. And they do so, working by themselves, in an effort to purify, tend, and maintain an object whose essential ecology is high maintenance, fussy, and energy-demanding. The lawn, an object, helps to constitute the subject.

But for any or all of this to be plausible, to begin to imagine things like hegemony, networks, and interpellation in something so common and apparently desirable as the turfgrass lawn, some traces of these forces must be evident in the history, economy, and daily practice of lawn care. For lawn people to have gotten the way they are by dint of complex over-determined political and economic forces, rather than by free choice, culture, and consumer demand, several things must be empirically true about the modern lawn.

First, the modern lawn cannot be an expression of culture outside of a political and economic history in which property, citizenship, and proper consumer behavior are conjoined. Second, lawns (although not necessarily grasses) must at some level require the inputs invested in them by people, and these demands must enforce human practices and behaviors. Third, chemicals for lawns must also represent real problems, ones born of a risk society where hazards and

the burden of risk calculation are shed downwards and outwards. Fourth, input-producing firms must be compelled for broader economic reasons, to eschew lower-input alternatives and to shift risk ecology to consumers. Finally, if this view of the lawn has any leverage, the lawn cannot be something that people simply say "no" to, despite their best intentions, and switch off as a kind of consumer preference. Lawn people must act to some degree against their better judgment in their risk calculation. The range of viable alternatives must be truncated by formal and informal structural barriers.

In this book, each of these assertions will be taken in turn, evaluating how lawns, chemicals, firms, and people must together require one another, stubbornly enforcing their mutual positions, characteristics, strategies, and identities. We will, in the process, reveal the way contemporary urban political ecology is a system of mutual relations, held together in what might be called (following Maria Kaika), a space of flows.[45] These networks of power in the lawn economy, it will be further demonstrated, are not simply knitted together by a flow of value or capital. Rather, they are also joined together by a flow of chemicals, which are, quite simply, bad for children, wildlife, and other living things. They are real, material, and have effects we can understand and normatively judge.

To begin with, however, we must critically evaluate one of the most fundamental assumptions about lawns, that they are an expression of American culture. To this question, we turn first.