

Making marijuana an environmental issue: Prohibition, pollution, and policy

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Abstract

Over the past two decades, activists and market actors have successfully liberalized marijuana consumption and distribution in most US states. Given ongoing federal supply-side interdiction strategies, however, production has been another matter. This article traces the emergence of marijuana cultivation as an environmental matter. “The environment” increasingly constitutes a material-discursive social field into which actors (e.g. activists, law enforcement, producers, conservationists) can launch interventions into productive processes. The article traces three early, formative interventions in northern California: by federal agents to “reclaim” and protect public lands; by a county government to discipline and segregate compliant environmental citizens from recalcitrant, racialized “criminals”; and by producers themselves to mobilize environmental discourses in regulatory debates. Amidst ideas of pollution, reclamation, stewardship, and sustainability, these projects revalorized marijuana production, articulating with and departing from entrenched systems of inequality and stigma. As marijuana production liberalizes, this article draws attention to the legacy of prohibition moralities in regulatory debates, the necessity of incorporating criminalized actors in civil regulation and knowledge formation, and the possibility for a liberation environmentalism that exceeds the terms of exploitative, extractive relations that dominate contemporary agriculture, land use, and drug policy.

Keywords

Environmental governance, environmental policy, inequality, liberalisation, politics of knowledge

The general public should be concerned because there’s a lot of hazards associated with illegal marijuana growing. The cartels that are controlling or growing marijuana out on National Forest system lands are heavily armed. It’s very dangerous to our employees and publics that happen to run across them. And also, there’s a huge danger associated with the herbicides and pesticides that are used to grow this illegal marijuana. We also have an issue with natural resource damages out there, such as stream diversions, damage to vegetation, sometimes

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a permanent loss of vegetation on some of those sites. (US Forest Service (USFS) public relations officer, Pacific Southwest Region, 2009)

Taken from a 2009 Forest Service podcast, this quote calls the “general public” to concern, even alarm. There is a problem with illegal marijuana growing. Danger abounds for humans and nature alike—armed cartels, poisonous chemicals, environmentally destructive agricultural practices. There is “unbelievable” “ecological disaster” caused by “dangerous,” “armed” “cartels” “willing to kill for their profit,” the public relations officer says. Identifying deficiencies in government responses, the USFS PR officer concludes by noting the lack of resources to combat illegal growers. Next on the podcast, two new guests—the heads of the White House’s National Marijuana Initiative (NMI) and the Office of National Drug Control Policy—inform listeners that they will address that deficiency by supporting public land stewards through coordinated law enforcement efforts spanning federal, state, and local levels. Yet, even this new governmental intervention is not sufficient. The NMI director explains:

we need to bring in the civic groups, we need to bring in the prevention coalitions, we need to bring the faith based, we need to bring in the treatment people, the Sierra Club, environmental individuals. We need to bring in as many people, to get them on our side to go to congress and say hey, this is enough. Those are pristine lands that were set aside for the use of the public, not for the production of marijuana.

With this call to civic action for a new coalition of anti-marijuana and pro-environmental forces, the podcast turns to a final guest—a representative of a volunteer environmental organization that helps to clean up polluted grow sites. The work, he says, has the potential to “touch your heart” if you let it (USFS, 2009). At this point, the listener learns there is a second deficiency—and it is with us. We need to become more educated and aware, take precautions, feel shock, and support, perhaps volunteer for, cleanup efforts to protect the environment and fight marijuana.

This processual chain—define a problem, identify deficiencies in current responses, design and execute interventions, which in turn incite new subjectivities, affects, and responses—is how policies are produced (Li, 2007; Tate, 2015). The first step—defining a problem—is a power-laden process that organizes reality in a meaningful way, thus constituting a social field into which interventions can be made. This article focuses on marijuana production’s definition as an environmental problem by numerous, often conflicting, network actors. “The environment,” I argue, is a key rubric through which production¹ has been introduced into civil policy debate, public life, and ethical reconsideration,² particularly in northern California, the focus of this article and a historical center of both cannabis production and environmentalism. I make this argument genealogically, tracing forward several threads that crystallize the various dynamics contributing to marijuana’s environmental definition. These threads chronologically trace the linkage of cannabis cultivation to environmental harm under prohibition from the 1980s until the late 2000s, when a (failed) legalization ballot pushed cultivation into civil-regulatory debates and led to an efflorescence of projects to rework prohibition’s environmental linkages. These projects were productive of new discourses, practices, and relations and eventually unique statewide cultivation policy centering on environmental concern. Theoretically, these threads convey how cannabis became intelligible, or “enframed” (Braun and Castree, 2005), as an object of environmental governance through iterative network struggles over its induction into formal policy relations. These struggles reveal the contentious terms of an emergent “environmentality” (Agrawal, 2005; Luke, 1998), or conduct of environmental conduct.

Through this translational governing logic, marijuana moves from illegality to legality and the social field around it is recalibrated. If it is “high time for conservation” in policy debates over cannabis production (Carah et al., 2015), this article seeks to understand *what kind of* conservation motivates and emerges from policies. By genealogically sorting the contentious milieus from which policy artifacts arise, this article aims to illuminate the stakes involved in making marijuana an environmental issue.

After a theory section that frames matters of environmental governance, knowledge production, and policy networks, this article traces three illustrative threads in the formation of cannabis as an environmental issue in northern California: (1) punitive efforts to “reclaim” park lands from ostensibly dangerous cultivators; (2) disciplinary efforts to regulate cultivators, position them as “probationary citizens,” and normatively sort them by environmentally friendly status; and (3) debates among cannabis producers over the meanings of “sustainability.” Finally, I consider the implications of the environmental-social differentiation of producers for industrial policy and social and environmental justice.

I gathered data through ethnographic fieldwork and over 70 interviews with actors across the illegal/legal spectrum representing a range of dispositions toward cannabis and the environment—patient-cultivators, criminalized people, environmentalists, park rangers, property owners, and others. Approaching this diverse array of actors as parts of a dispersed (environmental) policy network (Hajer and Wagenaar, 2003), I traced how people conceptualized and mobilized key discourses (e.g. “conservation,” “cartels,” “community”) in order to imbue policy documents, nature, and social relations with particular meanings. This human-focused approach to network power (Kirsch and Mitchell, 2004; Routledge, 2008) offers a method of exploring how governmentalities are agentively, if circuitously and cumulatively, produced (Rutland and Aylett, 2008). I conducted my main fieldwork (2010–2014) in California’s initial period of regulatory experimentation and struggle around cultivation—a disorganized yet innovative period that reshuffled the relation of cannabis, nature, and policy in ways that currently resound in California and beyond.

Making the environmental: Proto-environmentalities, knowledge, and networks

Environmental conservation has become a key modality of contemporary governance worldwide (Lemos and Agrawal, 2006; Peet, Robbins & Watt, 2011; West, 2006). Some scholars have sought to address environmental governance through the study of environmentalities, the multiple modalities of conducting environmental conduct, whether through disciplinary norms, sovereign impositions, market incentives, or renderings of truth (Fletcher, 2017). The podcast above, for instance, conveys a sovereign environmentality at work in state efforts to compel obedience through threat of punishment *and* a disciplinary environmentality in entreaties for “good” actors to recognize themselves by taking ethical stances and actions. The friction between these governmental rationalities constitutes “the terrain of political debate” (Fletcher, 2010: 177), implying analysis must do more than simply categorize environmentalities—they must show how these environmentalities tensely coalesce in socio-political fields. To underscore this provisional, contentious, and processual formation, one might conceive of proto- or would-be-environmentalities—gambits to govern through an arrangement of and incitement to meaning in instituted, context-specific, political projects (Fletcher, 2017; Kingfisher and Maskovsky, 2008).

Proto-environmentalities can be deciphered in policies, which are artifacts of efforts “to organize and regulate the internal order of” (Wedel et al., 2005: 35). Policies work to congeal, calm, and resolve conflictive social fields by codifying authoritative terms and

patterns, aiming to influence future action through sanctions and incitements. For cannabis this codification is particularly powerful—unwritten norms, knowledges, and relations that had previously governed human–nature interactions stand to be eclipsed as cannabis passes from informal to formal status. Yet, even when codified, policies are aspirational as are the proto-environmentalities implicit to them, their future conditional tense affirmed in their violation, a dynamic readily evident in the resistance of cultivators to prohibitive and regulatory policies alike.

Environmental policies and governance necessitate the power-inflected arrangement of knowledge. Prohibition restricts environmental knowledge production to authorized actors, namely law enforcement and federally funded, prohibition-mandated scientific research agencies (Anderson et al., 2010; Lee, 2012). It disqualifies other (knowledgeable) actors via criminalization, inhibits reporting and monitoring of environmental effects, impedes knowledge accumulation and analysis by researchers about cultivation, and prevents information dissemination through agricultural extensions, land grant institutions, and universities (Gianotti et al., 2017). The blending of environmental and prohibitionist moralities impedes a full understanding of environmental harms (Ballvé, 2013) and occludes the harms produced by eradication itself, as scholarship on global drug production shows (Del Olmo, 1998; Klein, 2011; Smith et al., 2014; Steinberg et al., 2004). As governments liberalize cannabis laws, these environmental-prohibitionist knowledge arrangements—and the policies that institute them—stand to become disarticulated, thus necessitating a new expert knowledge base to inform policy.

In California, a unique debate emerged over the environmental impacts of cannabis production in the lead-up to and aftermath of two ballots to legalize cannabis, one of which failed in 2010 and the other which passed in 2016. Over this period scientists have steadily gained interest in and ability to document environmental effects. Despite being methodologically limited (until recently) to remote sensing and downstream inferences, the resulting literature indicates that marijuana has significant environmental impacts through water diversion (Bauer et al., 2015), rodenticide use (Gabriel et al., 2013; Thompson et al., 2014), energy use in indoor production (Mills, 2012), and production in areas of high ecological sensitivity (Butsic and Brenner, 2016; Wang et al., 2017). These effects cannot be disentangled from prohibitionist policies, which incentivize production in remote, hard-to-detect, ecologically sensitive locations (and energy-intensive indoor locations). Anticipation of legalization in the last decade, too, has shifted production from small farms and dispersed impacts to more extensive land use (Butsic et al., 2018) as prices destabilize, competition heightens, and correlative production increases.

Expert knowledge constitutes much of our world (Latour, 2012), but this is especially so for a plant, an economy, and a social field that, in California, has been exiled from most official circuits of knowledge production for a century. Because of the unique politicization and rapid transformation of marijuana knowledges and the frequent exclusion of producers' expertise from knowledge and policy formation (Polson, 2015), "accredited" knowledge producers (myself included) carry significant weight in efforts to understand marijuana as they/we articulate a new grid of intelligibility (Foucault, 1978), an "enframing" (Braun and Castree, 2005; Neumann, 2002) rooted in discursive and socially situated practices, through which marijuana is known and relations around the plant come to be governed.

This enframing, however, is not simply produced by experts but acquires meaning in its networked mobilization. In my fieldwork, for instance, I witnessed reports on energy usage (Mills, 2012) and wildlife (Gabriel et al., 2013) mobilized to justify cannabis bans, exclude indoor producers from county markets, and solicit federal support in pursuing cannabis growers even after legalization. These mobilizations imbued expert knowledge with

different meanings. Marijuana's intelligibility is only consolidated through relational policy networks (Bulkeley, 2005; Hajer and Wagenaar, 2003). These wide-ranging assemblages (Tate, 2015) include not just those who immediately impact policymaking but also those who constitute the social fields designated and addressed as "policy issues" (Jonas and Bridge, 2003; Lemos and Agrawal, 2006).

A central mechanism of environmental policy's governing power is the ability to differentiate environmental harm and care (Kosek, 2006), a matter that can carry moral-ethical weight, criminalizing sanctions, and resonance with historical dynamics of inequality (Braun, 2002; Jacoby, 2014; Peluso, 1992; Thompson, 1975). Cannabis is already saddled with these historical burdens, which are even now creeping into post-legalization settings. If a society is intent on thoroughly decriminalizing cannabis, it must grapple with these legacies. Unprecedented opportunities exist for imaginative approaches—the regulatory slate is uniquely clear. Is it possible to imagine a different kind of environmentality and corresponding interventions that center liberation from inequality and environmental degradation as core guiding principles (Fletcher, 2010; Peet and Watts, 2004)? The first task in this is assessing what kinds of environmental governance operate, with what delineations of harm and care, and how they emerge from and shape human–nature interactions and inequalities. The remainder of this article analyzes several episodes from northern California, where the debate on environment and cannabis emerged early and potently, illuminating core dynamics, discourses, and knowledges that continue to shape cannabis policy formation in California and well beyond.

Prohibition's federal retrenchment: Environment, production, reclamation

This section argues that environmental concern in cannabis policy was first crafted under prohibition, assumed heightened importance after medical decriminalization, and still resonates through state incitements to "reclamation."

Federal officials have not always exhibited the environmental concern suggested in the quotes beginning this article. During the 1980s, the Drug Enforcement Administration (DEA) fought against marijuana and environmental activists to spray controversial and toxic defoliant over US crops (DMESP, 1983). By 2009, however, when the Forest Service podcast was released, environmental protection had become a primary justification for federal anti-marijuana efforts. Authorized to defend the nation's forests from marijuana production since the 1986 National Forest Drug Control Act, the USFS focused early attention on Appalachia, where Kentucky's Daniel Boone National Forest notched more eradicated plants than any other forest in the 1990s (NDIC, 2002). In 1996 California became the first US state to decriminalize medical marijuana and shortly thereafter became the object of USFS attention. The number of eradicated plants on California's national forestlands doubled between 1997 and 2001 (to 720,000; Madigan, 2002) and by 2004 California contained eight of the top ten national forests where marijuana was eradicated (NDIC, 2005). With 46% of California land under the jurisdiction of federal agencies, the federal government could cast a long shadow over California's marijuana production sector.

Increased attention to forests justified new Congressional funds, which doubled USFS's law enforcement presence in California and granted 25 new enforcement officials in the Park Service's Pacific Region in the mid-2000s. More enforcement meant more seized plants, justifying further funding and eradication, leading to a geographically expanding, multi-year, multi-agency effort targeting public lands: 2008's Operation LOCCUST in Tulare County and Sequoia National Park; 2009's Operation Save Our Sierras in Fresno

County's Sierra National Forest and Kings Canyon Park; 2010's 3-county Operation Trident; 2011's Operation Full Court Press across the 6-county Mendocino National Forest; and 2012's multi-state Operation Mountain Sweep.

USFS involvement highlighted environmental threats to public lands yet the agency received a relatively paltry amount of funds compared to the DEA, other Department of Justice agencies, and the Department of Homeland Security. Notably, in the podcast above, the USFS pleads for assistance from other agencies, not more USFS eradication funds. Their role as lead agency and coordinator of public relations, then, appears to have revolved primarily around messaging—they provided a media strategy involving public relations officers, press releases, authorized interviews, seizure and arrest statistics, podcasts and so on. This effort paid off—while articles in the Lexis-Nexis database mentioning “marijuana” and “environmental” were scarce before 2000, by 2008 there were 548 and in 2016 upward of 2000 articles.

Environmental concern about marijuana production is now instituted at the highest levels of federal prohibition. The National Marijuana Initiative, which coordinates public information on federal marijuana policies, features a website section on environmental harms of marijuana; the DEA's 2016 National Drug Threat Assessment identifies environmental impacts as a key threat; the 2016 National Drug Control Strategy cites environmental effects as the key reason for ongoing domestic eradication efforts; and the White House coordinates these efforts through the Public Lands Drug Control Committee, involving numerous agencies including the USFS, DEA, Fish & Wildlife, Bureau of Land Management, Park Service, Department of Interior, state, local, and tribal partners, and academic researchers.

Recent federal environmental concern borrowed from a longstanding strategy of the State of California, which had been documenting environmental harms in its eradication efforts since 1983. Run through California's Attorney General, reports of the Campaign Against Marijuana Planting (CAMP) featured environmental impacts: fires, clear cutting, stream diversion, contamination by chemical fertilizers and rodenticides, effects on wildlife (e.g. CAMP, 1983). Hoping to counter public images of growers as peaceful environmentalists benefitting local communities, one CAMP report characteristically typified producers as ecologically devastating (p. 21–23), violent (p. 20–21) and a drain on local economies (p. 24).

Medical marijuana activism and policies challenged prohibition by making marijuana intelligible as a medical, not criminal, substance (Dioun, 2018; Polson, 2018). Emboldened activists and patients won court cases, forcing California to codify medical marijuana, clarify protections for use and access, and establish guidelines for matters like taxation and licensing. California's flagging support for prohibition hobbled federal agent's ability to ensure cooperation with state and local officials. If prohibition were to survive, it would be difficult for federal agencies to simply claim legal supremacy (a possibility in the US federalist system) and squash liberalization by brute force. Rather, federal agencies would need to devise strategies to re-enlist state and local forces. Environmental interventions remain a key aspect of this strategy.

Medical marijuana activists succeeded in liberalizing matters of consumption and distribution. Production was another matter. The federal government fervently prosecuted cultivation under supply-side interdiction strategies, causing state and local policymakers to avoid regulating it and medical marijuana industry actors to shroud it in secrecy. If prohibition's legitimacy was ebbing in the realm of downstream medical consumption, it still dominated upstream production activities.

Federal environmental concern marks a rearguard fortification of prohibition *via the production realm*. Public lands became a lever to forge new inter-jurisdictional

institutional connections and revitalize prohibition in a public register tailor-made for northern California, with its rich history of environmental concerns and publics (Walker, 2004). Combined with efforts to assert federal supremacy near schools and playgrounds and threats to prosecute landlords and policymakers who make space for medical marijuana industrial activity, the focus on public parks was part of a territorial retrenchment of federal prohibition. This move was prescient. By 2012, California's drug task force system was defunded, plant seizures declined for the first time in 30 years, the Attorney General denounced federal interventions into state affairs, and the CAMP eradication program was demobilized. The federal government was ready with a new and better prohibition: CERT—Cannabis Eradication and Reclamation Teams—a multi-agency effort housed under the DEA and the Forest Service.

CERT was not as significant or as long-lived as the CAMP program but it provides insight into rationale shifts in federal prohibition. Aside from signaling a more technical, less moralistic effort (“team” not “campaign”; “cannabis” not “marijuana”), the program's environmental register hinges upon the word “reclamation.” Reclamation has two significant meanings in US land science: reclamation of *contaminated* lands and reclamation of *non-productive* lands, such as deserts and marshlands, for “productive” use. Placing aside these definitions momentarily, reclamation implies a claim made against a prior, now invalid, claimant. For whom, then, is land being reclaimed? Who wrongfully laid claim in the first place?

The remote reaches of the nation-state, such as the hills, forests, and public lands where domestic marijuana has been grown since the 1970s, are spaces of state anxieties, where governmental limits are encountered. In these internal borderlands (Van Schendel and Abraham, 2005), social order is hazy and contested (Tsing, 2011), providing ample justification for violent state practices, often in the name of scientific forestry and land management (Kosek, 2006; Peluso and Vandergeest, 2011), against political revolutionaries and criminals, who are often lumped together as one and the same (Le Billon, 2001). Karl Jacoby (2014), in *Crimes Against Nature*, illustrates how these seemingly dangerous, remote regions were addressed through the US national park system's establishment. Coinciding with the closing of the Western frontier and the sequestering of Native populations, public parks elevated virginal, evacuated lands as symbols of the nation that required paternal defense by the state. Parks tamed wildness, rendering a consumable, proper, public nature, meant to invigorate young white men in danger of losing their masculinity in a staid, post-frontier society. By criminalizing common usage, an illegal underclass of ineluctably racialized “squatters, poachers, and thieves” antithetically defined the park system, the sanctity of nation, and the power of the state. This history resounds today in concerns over cannabis cultivation on public lands: the danger to a threatened, gendered, even pristine nature; resulting paternal state actions; and fears over racialized Mexican cartels. “Reclamation” is more than physical cleanup of grow sites—it proposes to purify public lands of polluting threats to its national, racial, gendered, and bourgeois integrity (cf. Kosek, 2004; Ray, 2013). It is, in short, reclamation as decontamination.

CERT also implies the second meaning of reclamation—making unproductive lands productive. Designating and defending public lands *as* public differentiates public from private lands, cleaving them into economically distinct uses. Parks negatively define the contours of private land markets by establishing their limits and supply (Darling, 2005). Further, policing of public lands funnels marijuana production into private land and employment markets (cf. Kelly, 2011; Kelly and Peluso, 2015). If reclamation is a state project to shape territory for the directed growth of productive private markets, public

park prohibition is precisely, if unintentionally, a reclamation project. Though focused on federal lands, the incitement to reclamation extends outward by resignifying publics, criminals, pollution, racialized threats, and improper disposal of land. These *criminalizing* discourses and actions extend into the *civic* regulation of marijuana production on private lands—a matter that localities were taking upon themselves in the late 2000s and 2010s.

Probationary citizenship: Moral regulation, stewardship, and racial-economic exclusions

[I]llegal growers, some with ties to violent Mexican gangs like Zetas and the Sinaloa Cartel, have taken over public lands and in the past, according to various media outlets, have fired on local residents, hikers, park rangers, and sheriff's deputies. In addition to the resulting violence, illegal grows have contributed to environmental devastation unprecedented in recent times including the diversion of natural waterways, clear cutting of forest lands, and pushing wildlife such as the California Fisher to the brink of extinction through indiscriminate use of pesticides at illegal grow sites. (Emerald Growers Association, Press Release, 12 December 2012)

Compared to the quote beginning this article, this second quote echoes the same themes—cartels, danger, violence, pollution. The first comes from a campaign to prohibit marijuana; the second from a group of marijuana producers to regulate marijuana. Two opposed purposes, nearly identical rhetoric, both claiming legitimacy and inciting action by invoking a criminal, foreign, dangerous, polluting specter. Producers came to share a rhetorical frame with prohibitionists, I show here, because they were placed in a position of “probationary citizenship” (Polson, 2015; Zedner, 2010), requiring a differentiation of moral, environmentally sound, compliant farmers from unethical, polluting, non-compliant criminals. This differentiation excluded and repelled could-be regulatory participants and reproduced systems of stigmatization and inequality similar to those under prohibition.

Mendocino County's regulatory program, known as 9.31, was the nation's first to regulate marijuana production (Fine, 2012). The Sheriff's Department administered the program, received fees from it, and sought to bring farms into compliance with codes concerning everything from facility cleanliness to limits on plant numbers to water sourcing permits. The program was a gamble. Could the county regulate some farmers and criminally prohibit others? Could they walk the line between federal illegality and local regulation?

This question was tested in the program's second year, when the county participated in Operation Full Court Press, a federally coordinated cannabis eradication campaign in Mendocino National Forest. Aiming to separate “compliant” farmers from criminals, the Sheriff sold placards, visible from the air, marking 9.31 participants for federal and state forces and thus delineating regulated, private-land producers from illegal, public-land producers. The federal government did not cooperate. Several months later, they raided three 9.31 farms and requested records on all program participants, ultimately precipitating the program's termination.

Amidst this controversy, the Emerald Growers Association released a press release with the quote above, distinguishing polluters from 9.31's “law-abiding citizens.” The document claimed respectability and legal inclusion—and it was echoed in numerous media, which depicted regulated, rational farmers stuck between an unreasonable, punitive, intransigent federal government and dangerous, environmentally deleterious criminals. Regulated growers were in a probationary state of citizenship, where one's status as a legitimate, law-abiding, respectable citizen was under review. This required the constant, anxious assertion of redeemed status, lest one be relegated to criminality again. In this precarious

state, it was not enough to demonstrate a lack of criminal activity. Rather, one's moral comportment was under investigation, requiring not just compliance but active performance, as parallel literatures on prostitution (Kelly, 2008) and the environmental stigmatization of slums (Ghertner, 2011) demonstrate.

Probationary citizenship is a form of liminal subjectivity in which a person is marked as sullied, polluted, and in need of purification (Turner, 1967). An overt criminal in the civil sphere is “matter out of place” (Douglas, 1966), a threat to social order, that must be ritually cleansed through hygienic or risk mitigation practices, like the decontamination and reclamation procedures above or the sorting of good and bad producers here. Purification is an anxious affair—it requires contact between the polluted and pure, thus threatening infection or perversion. Failure to render the polluted pure implies a failed social ordering. These anxieties descend from marijuana prohibition. Mexicans are constituted as contaminating forces today just as in the 1910s when they were targeted in California's first anti-marijuana raids (Gieringer, 1999). One can add to this worries over racial mixing in jazz clubs and the potential pollution of the white race, Communist and Chinese infiltration of the US workforce, the corruption of (white) youth by hippies or hip-hop, or the poisoning of the nuclear family by drug dealers (Lee, 2012; Sloman, 1979; Tate, 2015). Today, these anxieties are structured differently. As marijuana passes from a criminal to a civilly regulated plant, it is no longer a general symbol of criminal pollution. Rather, only *certain ways of behaving* in relation to marijuana—environmentally degrading ways, for instance—are constituted as polluting.

These disciplinary dynamics are apparent in 9.31's policy terms. In its “Purpose and Intent,” the legislation promised to balance concerns for patient access to medical marijuana, the needs of neighbors and communities “to be protected from public safety and nuisance impacts,” and adverse environmental consequences. It becomes clear in the “Findings” section, however, that concern for patient access is minimal and there is a categorical blurring between safety, nuisance, and environmental issues—marijuana attracts crime, smells, uses excessive energy, makes fires possible, and pollutes. These were the affronts requiring governmental intervention.

The county's concerns become understandable in the context of the program's history. In 2000, Mendocino County passed the nation's most liberal marijuana laws, but repealed those policies and instituted stricter limits on cultivation in 2008. The repeal was led by, among others, a property owner-manager and county supervisor, John McCowen, who represented the county's largest city, Ukiah, where, as a city councilperson, he had been instrumental in passing a ban on cannabis dispensaries and outdoor growing. His concern for public safety, law-abiding citizens, nuisances, and the environment (Anderson, 2005; Yes on B Coalition, 2008) permeated Ukiah's marijuana ban, repeal of Mendocino's liberal marijuana laws, and the 9.31 legislative text. Though most growers skeptically regarded 9.31's nuisance framing and involvement of the Sheriff (leading one critic to brand it a “police enrichment” program), McCowen found an ally in an organization called MendoGrown and its leader Matt Cohen, who viewed the Sheriff's involvement as a way to legitimate marijuana cultivation. Together, McCowen and Cohen rallied public support for 9.31 by promising, among other things, a more environmentally friendly marijuana industry. Through voluntary participation, producers could claim a morally elevated (Gabrielson, 2008), active environmental citizenship (Brand, 2007). These claims are increasingly common for marijuana (Bennett, 2017) and resonate in Mendocino, known for its groundbreaking ban on genetically modified organisms, establishment of the Rights of Nature, fracking ban, robust preservation movement, and a designated holiday for redwoods activist Judy Bari.

Used as a means to morally segregate farmers, claims to environmental citizenship excluded and repelled potential program participants. Stigmatized producers articulated four ways this exclusion occurred. First, several growers resented the equation of respectability with regulatory compliance. Under prohibition, cultivators ensured collective safety through non-compliance or refusal—refusal to snitch on neighbors, cooperate with authorities, gossip. Refusals established trust and trust begat reputation and respect, the basis of one's ability to secure a livelihood. To comply with county government—much less pay fees to the Sheriff's Department for the hiring of more deputies, like the ones who historically busted and arrested marijuana growers—violated this informal ethical system of refusal, reputation, and respectability.

Second, by not involving criminalized growers in policy formulation,³ regulation neglected producer's pre-existing environmental ethics and expertise and privileged state concerns, worried as they were about nuisances and non-growing neighbors. From its inception in the back-to-the-land movement, the region's marijuana sector was historically imbued with unique ethical-environmental commitments (Anders, 1990; Raphael, 1985). Though these ethics transformed under an intensified prohibition (Polson, 2018), environmental stewardship continued to make sense: it prevented conflict with downstream neighbors, thus averting unwanted community and government attention; it contributed to farmer's senses of meaning and value in relation to their land; and it checked product adulteration, which could jeopardize relations with brokers and consumers. Many were skeptical, even resentful, of state-crafted environmental ethics. Growers, like all Mendocino residents, had witnessed various episodes of environmental degradation *facilitated* by the state (e.g. London, 1998; Schrepfer, 2003). Whether relating to forest clear-cutting, dam impacts, vineyard runoff, or poisons from mining, residents frequently fought *against* the government to protect the environment.

Third, claims to respectable, regulated status repelled and excluded growers because of implicit racial and class biases in policy discourses about cartels, crime, and public and private land. No informants relished growing on public lands, if only because of heightened policing, risks, and consequences. But several cultivators regarded public land growing as a rational choice under prohibition, particularly for those with limited land access. For instance, renters or those with cantankerous neighbors might decide the risks of private land cultivation—*forfeiture, arrest, endangerment of their family, discovery and blackmail by a landlord*—were too great. Others cultivated on public land by hiring workers, thus offloading risk. One Mexican farmworker explained that US-born growers frequently hired immigrant workers to farm marijuana on public land. Those workers either succeed or get busted. Of those who succeed, many transition to growing for themselves, often on public land since they lack requisite capital, credit, and documents to purchase property, and the housing they rent is generally located in more populous, surveillable areas. The frequent correlation of Mexican “cartels” and public land grows creates a system of guilt by ethnicity. “Who gets busted depends on who you are, not on what you do,” he says. “They blame a whole race, instead of the individuals that do it.” In some articles and press releases, most of which originate with law enforcement, the presence of Spanish-speaking workers is not even required to bring suspicions of cartel involvement—some articles note only that tortillas, Virgin Mary candles, or food items with Spanish labels were present. This racial coding enables US growers to deny knowledge of marijuana gardens they oversee, even on their own properties. One white grower explained, “There's [a] deniability factor... ‘Geez, those Mexican cartels will grow right next to your house!’” he told me, feigning incredulity. “I'm afraid to walk that way! I hear some guys speaking Spanish! That's been typical for years.” By 2012, the head of the National Marijuana Initiative admitted that the cartel connection was

flimsy—not one case had shown a clear connection (Roberts, 2013). Yet, law enforcement, media outlets, environmentalists, and pro-marijuana advocates continue to recycle these racializing myths, particularly in environmental policy formation processes.

Finally, many cultivators regarded regulation as an effort to consolidate political and economic power for a particular section of producers and their political sponsors. According to one knowledgeable person, many 9.31 participants were new to the county, having immigrated after the 2008 recession. One farmer, citing a participant who had left Microsoft to grow, complains,

[It's] you guys first year coming up here, haven't paid your dues or anything, and you're... just joining the program, and you get to grow 99 plants and my neighbors who have experience with the Sheriff are all so scared, because they've all been burned.

This grower identifies a regulatory trap: those *most* likely to become regulated are the newest and least likely to have had adverse interactions with law enforcement; those *least* likely to trust regulation have been governmental targets for decades. This distrust was compounded by reports/rumors that some growers were coerced into program participation, either because their names were already known to program administrators or they were busted and given an option of prosecution or participation. These reports promoted skepticism about the program's "voluntary," hence ethically superior, character. Further, 9.31's disciplinary, gatekeeping qualities enabled enterprising individuals to consolidate economic and political power, such as the program's political sponsor discussed above, a person with whom many growers were loath to associate. The leader of MendoGrown, also, spoke openly in public forums about his desire to gain a contract as the county's official processor, making his company the bottleneck through which all county-regulated marijuana would pass. He had already shown himself, as a broker between producers and dispensaries, to be willing to pressure producers into accepting rock-bottom prices, leading many to distrust him.

Designing and implementing regulation of marijuana production in the context of ongoing federal prohibition lends itself to a disciplinary, state-centered politics of moral respectability as producers *and* policymakers seek legitimacy. Growers, as probationary citizens, are acceptable to the degree they present as proper citizens, growing on private land, in state-prescribed relation to the natural environment. Regardless of whether criminalized, non-compliant actors more effectively engage environmentally sound practices, they are categorically denied stewardship status and stigmatized by meanings generated under prohibition, archetypally culminating in the elusive specter of the Mexican cartel on public land, that consummate threat to civil order.

Though disciplinary civil policies may succeed in moral sorting, they fail to transition informal producers to formal relations (Putzel et al., 2015; Siegel and Veiga, 2009). In the preceding scenario, producers were expected to conform to the county's categorical imperatives, a conformance that reproduced inequalities forged under prohibition. What if a broader section of producers were integrated into the policy formation process? Might a more capacious definition of regulation, environment, and agriculture emerge? One county to Mendocino's north, such a situation emerged.

Sustainability, producers, and the marijuana market

In Humboldt County, a robust public debate emerged when marijuana producers were solicited to provide input into regulations prior to policy formation. In the following section, I examine three organizational perspectives, each unique and at odds but all

shaping marijuana's environmental signification. All emphasized "sustainability" yet meant different things—a common phenomenon with this notoriously indeterminate, pliable word (Bridge and McManus, 2000; Goodland, 1995). What should be sustained? What measures and actors are most fit to achieve sustainability? I will elicit how, in the process of defining marijuana as an environmental problem requiring address, these organizations projected different objects of concern, ethical visions of human–nature interactions, and claims for political-economic power. Cumulatively, networked dynamics like those below prepared marijuana production for formal regulation, public life, and a panoply of potential interventions. The tensions involved in this process were on display at a meeting involving all three organizations in 2011.

Forrest stood, calling the meeting to order. A tall, round man with a full beard and piercing eyes framed by wire-rimmed glasses, he was known as bombastic at times, a teddy bear at others. Slowly revolving, his eyes sought contact with each person in the room as he spoke:

We are faced, friends, with a choice. The Humboldt Grower's Association [HGA] and the Humboldt Medical Marijuana Advisory Panel have put forward two different visions: big business versus the conscience of this community. We have become the concern of the county supervisors and they now aim to regulate, some would say over-regulate, our community.

Forrest then proceeds to characterize the differences between the policy proposals of the two groups.

HGA, a lobbying and policy organization convened by several growers, aimed to form a scaled-up industrial organization that would be regulated, permitted and taxed by the county and housed under the Sheriff's office. The Advisory Panel, a grassroots, loosely organized focus group and policy input forum, aimed to establish protections for small homesteading farmers and a community-controlled regulatory advisory board housed under Health and Human Services. Though members of each group knew each other, some were even neighbors, tensions ran high. A growing antipathy between the groups had become a matter of public record as they each argued to county boards and commissions that their proposal was superior. Feelings had been hurt, neighbors had ceased talking, and this meeting was an effort to mend fences—a summit of sorts—here in the county's rural southern section. Forrest ended his remarks by promising to be "civil" and encouraged others to do the same.

Next, a staff person for HGA rose and gave a technical overview of the policy proposals, where they were running into snags with county government, and what adjustments could be made. She spoke of "exemptions," "recommendations," "pathogens," "special permits," "canopy size," "plant counts," and the minutiae of zoning, environmental, and agriculture regulations. In response to this barrage of technical detail, members of the Advisory Panel spoke in value-based terms: "civil rights," the "small guy," "Mom & Pop gardens," "economic stability," and "our community." The two groups continued to speak past each other for most of the meeting, in a back-and-forth of tedious technical details and sweeping statements of community values.

It was at this moment that a young producer spoke up. He did not claim membership in either group but was instead part of a group, Grow It in the Sun, that was addressing marijuana pollution in local watersheds. He said,

Frankly, listening to this discussion tonight, I just find myself wishing that the environment was at the forefront of what we're doing here. I hear what's being said tonight, that the small

[marijuana] farmers support the economy—I get that, I come from that. But the environment supports the small farmer. So, where does that leave our environment, the land and watersheds, here in this community? Where are we going in the future?

As he spoke, heads nodded across the room. Members of both organizations not only seemed to understand, but they seemed to believe that their respective organizations were the ones best suited for environmental care. Tensions thawed as both groups proposed ideas about how to center the environment in their efforts: use money from growing permits to clean up “cartel” grows on public land; create a county marijuana brand label that featured ecologically friendly status; shut down energy-consuming indoor grows; require medical dispensaries to sell sun-grown product. Environmental care, and specifically “sustainability,” was a value and a policy premise everyone in the room could agree upon. At a time when the region’s illegal marijuana production sector was jeopardized by the prospect of legalization, here was a common language in which each farmer could see a future. By delving deeper into each organization’s dynamics, however, it becomes apparent that this common language concealed as much as it made apparent.

The Advisory Panel: Local self-regulation. A county supervisor convened the Advisory Panel after a pivotal meeting of marijuana producers in this marijuana-rich county. That 2010 meeting (entitled “What’s After Pot?”) was unprecedented—growers, many who had been underground for decades, met in a semi-public forum to discuss marijuana’s future (Brady, 2013). A legalization ballot was coming later that year and growers, whose earnings dropped precipitously in previous years, realized that legalized marijuana could devastate their communities. The Advisory Panel was an open forum for cultivators and other locals to deliver recommendations for the crafting of countywide regulation.

Lance, one of the facilitators of the Advisory Panel, was a dropout of an elite university, having moved to Humboldt to grow marijuana in the 1980s and participate in its countercultural, environmentalist scene. He lived in southern Humboldt, or SoHum, which Lance describes as “the colonial fringe of the county”—it was badly represented in the county Board of Supervisors, subjected to generations of resource extraction, had few and paltry services, and was frequently targeted by county interventions, from gun-toting code enforcement officers to raiding marijuana forces. Ignored and exploited, SoHum, developed a powerful independent streak. They raised funds for their own community services, restored their own timber-pillaged lands, and, blending yeoman, countercultural, and outlaw ethics, resisted efforts by county government, located in northern Humboldt, or NoHum, to control their affairs.

Lance worked with county supervisors in NoHum, however, because regulation was happening with or without him and his community. He and the supervisor at least agreed that environmental sustainability was of the utmost importance. How best to sustain it was another matter. SoHum prided itself on community-generated environmental efforts. Lance explains,

We didn’t just bring free love. . . . Twenty percent of all solar panels sold in North America were sold in this town. Sustainable forestry! We created the method that would become the model for the entire timber industry. Stream restoration, the most venerable and effective citizen fish protection in the country, maybe the world, started in the river just west of here. It’s a dynamic, engaged community.

These accomplishments were made outside of a regulation-centered preservationism emanating from NoHum's urban center. Lance's friend put it this way.

Look, say you're a sensitive intelligent person, grew up in Orange County [an urban, wealthy area south of Los Angeles] and you know the environment's fucked for all kinds of reasons. You move up here to the city and you think... that no one should live beyond the community services district... You have this attitude that natural areas shouldn't be touched, that people living there must be degrading them. *Au contraire!* We came here to *restore* these lands... We have been very responsible stewards of the land.

This person depicts two versions of environmentalism that divided NoHum and SoHum—a regulated preservationism and a community-based working conservationism.

Applying this to marijuana, Lance believes communal self-regulation was the best way forward. “We’re setting standards and going to start modeling that self-regulation and showing not just awareness and codify things but to show these idiots [in county government] that they don’t need to regulate us.” Pollution can be managed by promoting community-based environmental care—self-regulation, dissemination of best practices, neighbor-to-neighbor monitoring, and farmer-crafted standards. Profit-hungry polluters, like timber companies before them, will find it too hard to operate in this self-regulated community.

For Lance and other Advisory Panel members, “sustainability” was not just about nature but a code of ethics and community heritage. This “*heritas*,” as one member termed it, was encapsulated in the “small,” “Mom-and-Pop” “homestead,” that idealized place of back-to-the-landers where human labor and land intermingled. Now, marijuana’s formalization presented the possibility of returning to that ideal. It could sustain back-to-the-land ideals, even as it resuscitated them from the polluting effects of prohibition. It would do so through a boutique economy that supported small producers and offered high-end products, while presumably mass production (and its ecological effects) would be “schizophrenically” (Robbins and Fraser, 2003) offloaded into more traditional agricultural regions. This version of sustainability was exhibited in another effort Lance was involved in—the launching of an outdoor-grown medical marijuana producer collective that boasted the motto: “Sustainable. Organic. Local.” Sustainability was as much about the plant and the environment as it was the local community that surrounded it.

The Grower’s Association: State regulation and industrial protection. The Humboldt Growers Association (HGA) formed several months after the Advisory Panel. HGA’s leaders had attended the launch of Lance’s producer collective but were turned off by criticism of profiteering “big” growers. Among five friends, each contributing \$50,000 each, HGA formed as a trade organization dedicated to passing county marijuana regulations. They hired staff and lobbyists, crafted policy proposals, and formed a tight organizational structure—a contrast to the Advisory Panel’s open, loosely organized sessions. Also unlike the Advisory Panel, HGA gladly worked with county government. They held a lucrative fundraiser for a county supervisor, endorsed a pro-regulation District Attorney candidate, and hired a public relations consultant deep in NoHum environmental politics and a former county politician as lobbyist—all unprecedentedly public actions for cultivators at that time.

HGA quickly became central to crafting county regulations. Where the Advisory Panel advocated smaller farms, HGA advocated scaled-up farms. Larger farms could better withstand legalization and the onslaught of likely buyouts and consolidations; they could

also integrate environmental technologies and best practices more efficiently and would be easier to environmentally monitor. While the Advisory Panel advocated arms-length oversight by Health & Human Services, HGA advocated Sheriff oversight—law enforcement’s supervision would buttress the industry against meddling federal forces. They aimed to secure a monitored, compliant industry for regulated economic growth—a vision resonating with NoHum government officials hungry for tax revenue and job creation.

Scott, a founding HGA member, illustrates these dynamics. He had worked his way up from “guerrilla” growing on private timber land to owning several properties, which all produced marijuana under crop sharing situations. He oversaw harvest and infrastructural improvements but was mostly distant from everyday production. The environment, he explained, was a key part of HGA’s vision—the land’s natural beauty “enhances the [business] deal so much.” The county needed to capitalize on this beauty, brand their marijuana, and project the organic methods and care for the environment so that buyers from all over the state, and eventually the country, “can feel really good about who they’re involved with.” The environment was to be valued and mobilized economically: environmental care would anchor HGA’s brokerage of production contracts with dispensaries; environmental certification would hopefully win HGA a contract with the county to do compliance inspections; and, if HGA could win a county processing and distribution contract, they would place the environment at the center of the county’s brand. Sustainability was a smart business tactic but it required governmental regulation—water source permits, land use and zoning codes, inspections of water catchment systems, road grading, drainage, and so on. Environmental care came not through ethical commitment but by continuous technical adjustments to regulatory policy. He explains, “I’m not really worried about the environmental impact because I think it’s going to fix itself pretty good through this regulation.”

Grow It in the Sun: Permacultural communities. Jared was a member of Grow It in the Sun, which began in 2008, two years before Humboldt’s public debate over marijuana production. It started as an informal discussion among neighbors in a tight-knit watershed about noise from diesel generators. Two weeks later, 3000 gallons of diesel fuel, used in off-grid and indoor grows, spilled into a local creek. Risking community backlash, Jared convened a wider neighborhood meeting to discuss what he termed the “industrialization of the watershed.” The meetings were controversial—open discussions of marijuana were almost never had. Later, Jared and a local environmentalist, known for his role in redwoods activism, traveled to a county supervisor’s meeting to testify on the seldom-discussed environmental effects of marijuana.

Grow It in the Sun argued that “social pollution”—the codes of secrecy developed under prohibition—allowed environmental pollution to occur. Prohibition, he explains, makes

you lose your voice. You’re afraid to speak out because within the community they might turn somebody and rat somebody out. They might be a traitor. And now this is the issue we’re dealing with. We’ve created a community, a safe zone, for people to come in and exploit us because we’ve created this oath of silence.

Jared was skeptical of sharp distinctions between “big” and “small” growers. It wasn’t only “newcomers” that were polluting (like Scott); it was also locals (like Lance) with “that mom and pop mentality. . . Given the opportunity they went big.” Everyone was “tainted by this whole capitalist culture and its growth.” Lucrative marijuana fostered a monoculture and “mono-economy” that ensnared the community in an escalating, ecologically destructive cycle—high profits boosted property values and living standards, stimulating more

production but, as any farmer knows, more product depressed prices and incited more extensive, environmentally impactful production. Whether one was a “big” or “small” farmer missed the point—everyone acted under symmetrical monocropping pressures. Whether one wanted to be the “Whole Foods of marijuana,” like the HGA, or the “farmer’s market of marijuana,” like the Advisory Panel, they would all eventually adapt to the same pressures that crafted the wine industry—a handful of firms often presenting as family farms, while exploited immigrant workers cultivated crops.

Any market production was ultimately *unsustainable*, a point Jared emphasized during a tour of his permacultural farm, which harnesses ecological cycles to minimize impacts and external inputs. Here, marijuana was just one inter-reliant ecological feature among many for on-farm cyclical reproduction. Regarding sustainability, he explains:

If you create an export commodity and you think you have a closed-loop system, [you]’re not seeing the whole system, [you]’re not seeing it *as* a system. You take your export commodity. . . out of the community, [and] you’re always leaving yourself in an unsustainable situation. . . Into [your] plan[s are] factored in so much imported soil, imported fertilizer, amendments. ‘Well, it’s organic’ [you’ll say] but it came from halfway around the world. . . What the community doesn’t understand and what’s so frustrating to me is, it’s just the same as anything else, we hear this term ‘sustainability’ for everything and it’s just greenwashing.

Rooted in a hyper-localist permacultural critique centering theories of peak oil, global warming and social collapse, Jared was pessimistic about regulatory debates. His definition of sustainability exceeded marijuana and the markets, jobs and growth it might bring. Communities, like his watershed, would have to cope when marijuana—or the entire economy—imploded. “People [are] waking up,” he explains, “to the fact that if we don’t get started [building self-reliant communities] now, when the boom is over, we’re going to need each other and our community if we want to make it out here.” His aim is to reestablish a substantive knowledge and connection with the land that was lost when Native Americans were exterminated and a voracious timber industry took their place. He explains,

We’re re-inhabiting this landscape and if we don’t stay, regardless of what the economic situation is, then we can never start to build. . . the land-human link, that place-based knowledge, which is really what makes people *sustain* themselves, and understand themselves, and pass that along in cycles.

All three Humboldt organizations above defined and mobilized particular definitions of sustainability, what threatened it, and what might ensure it. Each projected a vision of marijuana’s induction into formal circulation—a vision of production structure (who would benefit and how) and also a signifying arrangement of nature, community, subjectivity, and ethics. This blossoming of visions highlights the value of policy deliberations that include producers in ways that actively de-criminalize claims to public voice.

These cases contrast with Mendocino’s more singular delineation of good/environmental vs. bad/polluting producers, and the federal government’s sorting of criminals from an anti-marijuana, pro-environmental public. The Humboldt cases broadened the scope of marijuana’s possible futures, incorporated (some) criminalized producers into knowledge and policy production, and as such constituted one of the first formations of self-defined marijuana producer politics in the nation, a politics generated through and generative of new knowledge forms, networks, and policy actions.

These proto-environmentalities in Humboldt and Mendocino were quashed when the federal government intensified prohibitive actions in California in late 2011. Federal memos in 2011 and 2013 recommitted prosecutors to pursuing marijuana cultivation and

market actors, encouraging special attention to cases on public lands that may cause environmental harms. An ensuing series of threats and raids by the US District Attorneys stopped liberalization cold. The coordinator of Mendocino's producer organization, MendoGrown, was arrested and the 9.31 program halted. Humboldt Growers Association folded out of fear, Humboldt politicians ceased policy deliberations, and the Advisory Panel suspended meetings.

Yet, the debates rehearsed above articulated at other scales. HGA and MendoGrown regrouped with advocates from the Advisory Panel and regional environmental groups, formed a region-wide Emerald Growers Association, and, later, became the statewide California Growers Association. With their input, California produced medical and commercial marijuana policies that regularized distribution, consumption *and* production. Reflecting the debates above, these policies offer protections and licensing mechanisms for smaller growers and significantly regulate and monitor environmental impacts. Concern for environmental impacts have been uniquely central to the regulation of cannabis, arguably making it “one of the largest sustainable agricultural industries in the state” (Staggs, 2017)—*if* cultivators can successfully comply with and afford regulatory standards, which was questionable as of this writing (Bentaleb, 2018). If not, regulation will have merely created more categories of criminalizing non-compliance. Given falling prices and increasing competition, criminalized/non-compliant producers will be increasingly pressured into increasing scale, intensity, and risk in farming, likely with compounding environmental impacts unseen in marijuana's domestic agricultural history. In short, civil regulations, like prohibition, may be imperfectly suited to assuring positive environmental outcomes, however defined—a matter that suggests a need to reassess the project of governance, environmental and otherwise, altogether.

Environmental economies, new criminalities, and regulatory futures

This article showed how cannabis emerged as an environmental policy matter under prohibition, which intensified after marijuana's medical decriminalization and came to influence, but not determine, subsequent regulatory efforts to repattern human–nature interactions. The article traced several genealogies linking cannabis to the environment, namely through material discourses of reclamation, pollution, stewardship, citizenship, and sustainability. These strands of social logic are proto-environmentalities—political efforts to make marijuana production intelligible as environmental and to organize the broader networked field for policy interventions. Whether through sovereign prohibitions (federal), disciplinary-normative regulations (Mendocino), self-regulation (Advisory Panel), state-induced market incentives (HGA), or a deep ecology politics (Grow It in the Sun), processes of problem definition and address cumulatively signal an environmental shift in thinking and enacting marijuana production.

No longer a homogenized criminal class, California producers are undergoing social differentiation—and environmental status is a key register. Federal prohibition still looms, inhibiting informed knowledge and policy formation, sowing distrust of government among vulnerable actors (undocumented workers, traumatized veteran growers, convicted felons, etc.) and disciplining demands of compliant producers, who are compelled to ethically and morally distinguish themselves. The result is odd: rather than locating the causes of environmental degradation and regulatory hindrances in an increasingly discredited prohibitionism, which over eight decades incentivized ecological destruction by preventing regulation, inflating prices, and instilling fear of governmental engagement, blame is instead placed on prohibition's criminalized targets. This placement of blame ineluctably blends with

social logics of degeneracy and danger, expanding to entire racialized groups as it has through prohibition's history (Musto, 1999), whether they be spectral Mexican (or other "foreign") cartels or deficient, polluting groups of white people described as outsiders or lower class, like "diesel dopers" (mostly white, young men so named for their noise-making, polluting diesel generators). Criminalized groups, *as* criminal, cannot present in public debate; they can only be *spoken of* by others. They are, once again, excluded from public life. By making explicit how criminality is constituted, this article has aimed to reveal liberalizing policy's continuity with previous dynamics of inequality and, in this, take a step in undoing prohibition's legacy.

Looking forward, three matters about marijuana's legal transformation emerge from this article. First, regulations are not simply efforts to constrain, conserve, or control but are productive of new social forms (e.g. institutional dynamics, knowledge, subjectivities). However constructed under liberal capitalism, they are intended to direct growth and consume more nature. Indeed, marijuana and its environmental effects have skyrocketed as marijuana has been increasingly regulated (Butsic et al., 2018). The scale of environmental impact increases under regulation, even as marijuana's criminality is ironically identified as that which impedes an environmentally sound future. Environmentally speaking, regulated marijuana may not be *better*, might be *worse*, and is surely *different*, posing new challenges and possibilities, all contained within the terms of capitalist growth.

Second, lawful marketization predicates formal equality before the law and in the marketplace, yet it does not address substantive, historically rooted inequalities among juridical and market subjects. Environmental material discourses, whether regarding pollution, proper use, citizenship, or sustainability, frame some inequalities as important and others as excusable. Attending to the work of these discourses is critical in understanding liberalization's relation to inequality.

Lastly, formalization makes marijuana available, as never before, for *collective, overt, formal-political* interventions, whether those collectivities be hedge funds, state agencies, or marijuana and environmental activist collectivities. This moment proffers the possibility of a liberation environmentality (Fletcher, 2017), an art of governance that centers social and environmental justice rather than simply preservation. What policies might result if governance were oriented to deliberative justice? It would be difficult to address cannabis cultivation and environmental policy in justice terms without also addressing the industrial structure of value capture, the impact of racial, cultural, legal, and economic inequalities on who cultivates, the importance of illegal livelihoods in rural areas that lack substantive rural development, and the consequences of criminalizing approaches to nature and drugs beyond cannabis. If governments are now deciding that the prohibition of cannabis was indeed unjust and in need of reversal, then justice must be restored not by passively releasing cannabis into market and regulatory current, but by deliberatively generating policies, proto-governmentalities, that actively seek to produce a new paradigm of liberatory human–nature entanglements.

Highlights

- “The environment” is a key way through which legalized marijuana production has been introduced into public life.
- Numerous actors (policymakers, advocates, law enforcement, farmers) attempt to define marijuana as an environmental problem and intervene accordingly.
- The framing of marijuana production as “pollution” dovetails with prohibition's history of marking people and substances as socially polluting.

- “Reclamation,” “stewardship,” and “sustainability” have become central, yet slippery, ideas in the environmental politics of marijuana production.
- Regulatory attempts are shadowed by prohibition’s legacy and this can affect the socio-economic differentiation of producers.

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Notes

1. While I am largely speaking of outdoor production, concerns over indoor production might also be considered environmental—electricity used, effluent discharged, diesel spilled, fire hazards. This said, regulation is already causing economic shifts (e.g. price decline, value redistribution in commodity chains) that disincentivize expensive indoor production, making environmental concerns over outdoor production a persistent conceit.
2. Environmental concern joins other material-discursive rubrics, like property rights and economic development, as I explore elsewhere (Polson, 2015, 2017).
3. Mendocino did hold meetings, open only to voluntary program participants, to solicit feedback after the program passed but input prior to passage was scant.

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