



## SOIL FORENSICS: Property and the Buried Truth in Medellín

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It was first communion day when the earth rained down. When residents of the neighborhood of Villatina recall their memory of that Sunday in 1987, they recount looking up and seeing “nothing but dirt.” The mountainside where Villatina is perched, far above Medellín’s city center, had come down onto the neighborhood, covering people and homes under 20,000 cubic meters of soil. Residents ran to the site to dig out family members and neighbors. Some were found alive, but hundreds were buried under the earth.

Official city reports described what occurred as a natural event: a landslide. Technical investigations by engineers confirmed the disaster resulted from water accumulation in the mountainside soil above Villatina during the rainy season. Officials noted there was a canal feeding water tanks that supplied informal settlements on the mountainside; lack of maintenance of this canal could have exacerbated the earth’s saturation and contributed to the landslide.

Residents, however, frequently began their recollections of the tragedy by saying they suddenly heard an explosion. While they were unsure of the specifics of the explosion, they were sure of one thing: it was because of the M-19, a left-wing guerrilla group active in the neighborhood at the time. Villatina residents recalled seeing M-19 guerrillas habitually roaming that area of the mountain. In

a television interview about the disaster, a resident explained: “People say they [the M-19] had dynamite stored up there, and maybe with the heat it exploded. . . . And yes, because the thing is, it was not a landslide. Yes, there was mud, but because there was a canal there. And when everything broke and the pine trees came down and everything—because that explosion ripped out pines by the roots!—then the canal emptied out.”<sup>1</sup>

Nearly thirty years later, with the country poised to finalize a historic peace agreement with the Revolutionary Armed Forces of Colombia (FARC) guerrillas after a half-century civil war, people in Medellín were still talking about Villatina. The neighborhood was one of the initial construction sites of the Cinturón Verde (Green Belt), a municipal green infrastructure project involving walking paths, bike paths, and eco-parks that would eventually circle the upper reaches of the mountainsides surrounding Medellín. The Green Belt was in part intended to delineate the urban-rural boundary, discouraging further expansion of the informal settlements that populated the city’s peripheries. It also aimed to help Medellín move past decades of war, and, as billboards across the city proclaimed, “turn the page on violence,” as part of national efforts to achieve peace. This orientation toward peace built on the city’s history of “social urbanism,” which focused municipal infrastructural investments in poor neighborhoods to combat violence and social inequality. But pending Green Belt construction threatened to remove residents in areas like the upper *comuna* (district) around Villatina, the vast majority of whom had built informal settlements there after displacement from rural farms during the war.

I analyze how both city officials and residents built divergent narratives around soil as a forensic site for determining culpability for the disaster in Villatina and its implications for the Green Belt as its construction commenced. Their “soil forensics” drew on the material and sensory qualities of soil—its color, its humidity, its movement—as evidence toward a particular account of what happened that Sunday in 1987. As the city government attempted to evict residents to turn the upper *comuna* into an eco-park, claims to the *comuna* by both city officials and residents also activated these forensic accounts of soil as evidentiary arguments about property.

The notion of finding evidence in the soil to establish the truth about a violent past recalls exhumations, which have formed part of a “forensic turn” in transitional justice processes (Gessat-Anstett and Dreyfus 2015; Rosenblatt 2015; Fournet 2017). And indeed, exhumations to locate mass graves were occurring across Colombia, including in Medellín, where local bureaucracies proudly

advertised the number of bones exhumed and returned to families whose loved ones had been disappeared. And yet it was not soil as a repository for more conventional forensic objects like bodies or bones, but *soil itself*—its morphologies, scientifically determined qualities, temporalities, and legal materialities—that became a central object of forensic inquiry as the Green Belt unfolded.

The term forensics originated with the Latin *forensis*, denoting something pertaining to the forum. The Roman forum was a site of public debate, as well as a court of law. People could present objects as evidence or even put them on trial in the forum, blurring boundaries between object and subject, evidence and witness (Weizman 2014). Drawing on this history, Forensic Architecture has theorized forensics as establishing “a relation between the animation of material objects and the gathering of political collectives” (Weizman 2014, 9).

In part following this conceptual lineage, work on forensics in transitional justice focuses largely on forensic regimes in criminal legal fora, understood as the core of political transition. In Colombia, however, it was not only crime, but also property that played a central role in attempts to forge peace. Historically unequal land distribution and tenure informality were widely understood as root causes of the war and key to its resolution (Arias Vanegas and Caicedo Fernández 2017; Reyes Posada 2009). Efforts to achieve peace included programs focused on reordering property, such as a land restitution program to return and title land to those who lost it during the war, along with urban interventions like the Green Belt, which used green urban planning to confront violence by curbing urban expansion through *invasión* (land invasion).<sup>2</sup>

It was, in fact, a question about property, not soil, that led me—unexpectedly, as with other anthropologists encountering disaster in Colombia (Camargo 2020)—to the Villatina disaster. I conducted fieldwork in Colombia over eighteen months between 2012 and 2015, in the northwestern region of Urabá and in Medellín, on the role of property in peace efforts. In Urabá, I examined restitution claims to rural land. While it was estimated at the time that more than 7 million people had been internally displaced in the war, many of the displaced lived in cities and did not necessarily dream of returning to their former farms. As I conducted research with displaced people in Medellín, conversation repeatedly turned to Villatina. Property disputes opened up the decades-long debate about the disaster’s origins, in turn feeding disagreements over notions of “risky soil” that grounded both the city government’s explanation of the disaster and its justification of resident removals for the Green Belt.

In examining how soil forensics operated as an evidentiary argument about property, I follow other scholars of forensics in analyzing how forensics are used

outside the context of crime and policing (Azuero-Quijano 2021; Pietz 2002; Ralph 2015). I draw on Alejandra Azuero-Quijano's (2021) conceptualization of forensics in Colombia as a legal infrastructure that involves classic evidentiary objects (such as bones or blood), but also animates specters around illegal assets and other forms of finance capital that become key to broader narratives of political transition. The rendering of soil as a forensic site illustrates the ways that transitional evidentiary regimes drew on what many understood as the country's most significant natural asset: its soil. As city agencies broke ground for the Green Belt, soil forensics activated old specters on new terms, challenging official narratives of the war and of reordering property for peace.

The transitional justice process oriented this forensic animation of soil toward the arrangement of property in a future peace, framing its language and political stakes. But soil forensics and property also had affinities that exceeded the logics of transitional justice. Property, like forensics, constituted a form of legal knowledge that drew together material and social worlds through the delineation of objects, subjects, and their relations. Property disputes are often arguments over the definition of these boundaries—of who can or should be an owner and what can be owned. In the context of crime detection and investigation, forensics often involves reckoning with the delineation of perpetrator and victim, their identities, and their relations (Olarte-Sierra 2022). Property claims activated these capacities of forensics, but at different scales and legal temporalities, centering different material objects. Soil carried its own particular material and social ambiguities (Krzywoszynska and Marchesi 2020), rendering soil forensics a type of evidentiary argument about property that had the potential to muddle boundaries.

I draw together work on forensics and on soil to examine how the reordering of property rendered soil a forensic site, which different actors animated through narrations of its material and sensory qualities. Literature on soil emphasizes the many ways people make worlds through soil, refusing notions of soils as inert spaces in which to simply dig and find objects (Tironi et al. 2020; Krzywoszynska and Marchesi 2020). Maria Puig de la Bellacasa (2019) describes how visualizing soils as living worlds requires “shifts in modes of attention” in which people “re-animate” soil through material and speculative engagements. In Medellín, this re-animation unfolded through efforts to evidence a truth about the past that might support particular arrangements of property for the future, as the city government mobilized the Green Belt as both a form of green infrastructure and a mode of achieving peace. This required a mode of attention with

a capacity for attunement to the multiple temporal materialities of soil and the legal frameworks facilitating action around it.

Forensics—as an “art of paying attention” (M’charek 2023) to material traces—was precisely this mode of attention, ready-made for attunement to the material and social worlds the Villatina disaster inhabited. Soil as a “sociobiophysical object” (Krzywoszynska and Marchesi 2020, 194) sat similarly within these worlds (Tironi et al. 2020). As a *forensic* object—one instance of what William Pietz (2002, 48) called “materialities that exercise a causal power over life and death”—soil carried a particular power, serving as a node around which social, legal, and political relationships unfolded, in ways that were both immediate and also had a long afterlife (Crossland 2018). Forensic attention to soil in relation to property, as opposed to the frequent orientation of forensics around the definition of criminal perpetrators and victims, implied a more expansive role for soil in forensics than it generally held in processes like exhumations. Soil’s unique capacities allowed it to serve not only as a forensic object par excellence for multiple, divergent accounts of the disaster but also as a foundation for future horizons at different scales, from the national project to reorder property for peace to municipal visions of green urbanism and residents’ dreams of permanence.

What might soil forensics tell us about the evidentiary politics of property in an aspirational transition from war to peace? How do efforts to reorder property for peace shape the modes and objects through which ecologies become evidentiary (Lyons 2018; Pugliese 2020)? Forensics in transitional processes is often understood to reconstruct the social by rebuilding relations of democracy, kinship, or citizenship (Rubin 2020; Sanford 2003; Rojas-Pérez 2017; Gesat-Anstett and Dreyfus 2015). Through the centering of property in transition, this rebuilding involved the reconfiguration of both social and material worlds, as the state attempted to put people and land in place for peace. Soil forensics served as an evidentiary argument for multiple actors enacting and contesting this reconfiguration. Through forensic inquiry into soil’s sensory and material qualities, these actors reconfigured both property and territorial relations, in turn shaping the possibilities for war and peace and questioning the very idea of transition.

In the following pages, I first elaborate on the ways different actors animated soil as a forensic object to support divergent accounts of the Villatina disaster. I then discuss the history of soil politics in Medellín after Villatina, when the city government reclassified areas like the upper *comuna* as high risk zones.

I examine how soil forensics became an evidentiary argument both for city officials attempting to justify resident removals for the Green Belt and residents opposing them. Residents' arguments drew on soil as evidence that the Green Belt was implicated in displacement and the cover-up of disappearances. These claims, articulated in the language of transitional justice, operated as counter-forensic forms of resistance both to the Green Belt and to city officials' claims that Medellín was moving beyond its violent past. The final section illustrates how resident gardeners and city officials drew on these evidentiary arguments to articulate claims to property and territory for the future.

### SOIL FORENSICS

The Green Belt was a source of pride for a city that had spent years building a reputation for green urban planning. Mayor Sergio Fajardo's 2004–2007 administration established “social urbanism” as Medellín's approach to urban renewal, which focused on developing parks, libraries, public transit, and educational centers in the city's poorest neighborhoods (Brand 2010). The city government's efforts to resolve violence and drug trafficking, such as its mid-2000s demobilization of right-wing paramilitaries, also included social urbanism by integrating demobilized paramilitaries into gardening and recycling projects (Universidad Nacional et al. 2009). Through social urbanism, Medellín rebranded itself as an urban “miracle” for its conversion from a place defined by violence and drug cartels into an innovative, green, equitable city.

The Green Belt and the city government's articulation of its relationship to peace had deep roots in this history. Medellín's 2012 Territorial Ordering Plan, featuring the Green Belt and other infrastructure projects discouraging the expansion of mountainside settlements, coincided with the initiation of the national peace talks. Medellín promoted itself as a prime example of transition, emphasizing how its expertise in urban planning as social intervention dovetailed with national efforts to achieve peace. While the conflict was often understood as a rural problem, the Medellín government insisted that sustainable, equitable urban planning was critical to achieving peace.

Medellín's international recognition for social urbanism won it the honor of hosting the 2014 UN-Habitat World Urban Forum (WUF), where the city promoted itself as “Medellín: City for Life.” During the WUF, I joined a group of foreign planners and architects for a Green Belt tour. Stands flanked a Green Belt walking path called the Camino de la Vida (Path of Life), where city employees promoted *fique*, a plant in the agave family. The city development corporation

(CDC) leading Green Belt construction planned to plant more than 20,000 *fique*, and was training community members to make placemats and exfoliating gloves out of *fique* fibers. Officials from the CDC I spoke with emphasized *fique*'s "dual purpose." It would stem mountainside erosion, protecting against landslides. And *fique* would also "guarantee that it doesn't become invaded again, at least in a disordered way," one official noted proudly. *Fique* acted within environmental, legal, and security logics, protecting soil against natural disasters and simultaneously preventing illegal, disordered urban expansion by displaced people.

The first walk I took on the Path of Life was with Jessica and César, residents of the upper *comuna*.<sup>3</sup> We walked on a Sunday, their worn shoes pacing slowly along the path's hexagonal concrete tiles. Partway through the walk, César called me over to look into a trench. It had recently been dug by local workers like César, who had a temporary day job building the Green Belt. We looked into the trench, lit by sun filtering through the pines. "Mira el suelo [look at the soil]," César said. I peered past the dry, red-brown earth and scrubby grass of the mountainside into the depths. "See the two different colors?" he asked. Near the surface, the soil was light brown. César pointed to another layer, about two feet down, that was almost black and looked damp. "That layer below is the natural soil of the mountain. And then the layer above was what formed with the explosion . . . they said it was a natural disaster or avalanche, but it was the M-19 that exploded a bomb here. The crater is still there," he said, pointing up the mountain. He leaned against the trench with a pained expression. "I remember coming here and digging bodies out of the dirt."

César's account of the disaster centered soil as evidence, pointing to the soil's color and humidity to contest the official account. Other residents recounted memories of the earth's movement during the disaster as evidence for their version of the story. On arriving at a community meeting about the Green Belt, I once found residents deep in discussion about the disaster. One man proclaimed it had been a bomb, prompting another to recount how "there was gas mixed with earth" at the site. A woman exclaimed to me, "The earth went like this!" throwing her hands high and wide in the air to demonstrate its arc. She then moved her arms in the downward sliding motion often used by city engineers to describe the event, shaking her head and saying, "Not like this. That was no landslide!"

City engineers also used the soil's humidity and movement to support the official account. They cited technical reports of the soil's humidity that day, and its movement downward in a slide that fanned out, as indicators that the mountainside had weakened, causing a landslide. For both city officials and residents,

soil had evidentiary value and operated as a forensic object, offering proof of the veracity of one version of events and rendering other accounts implausible. Although soil had the potential to contain evidentiary traces that might be invisible (of violence or toxicity, for example) (Lyons 2018), in Villatina, it was soil's tactile and visual materiality—just *look at the soil*, and it will become clear to you, César urged—that rendered this evidence so incontrovertible for officials and residents. Soil had the assumed facticity of other forensic objects, such as exhumed bodies, understood to have evidentiary power precisely because they “spoke for themselves” (Crossland 2018, 2009).

The animation of soil's material and sensory dimensions was necessary to present evidence of its qualities in the past and produce soil as a forensic object. Scholars of forensics have emphasized the sensory and material aspects of forensic practice, as forensic experts produce embodied knowledge through material objects as both evidence and modes of attunement to that evidence (Olarte-Sierra and Castro Bermúdez 2023; Kruse 2015; M'charek 2023). Producing soil as a forensic object in Villatina required achieving a “heightened aesthetic state of material sensitivity” (Weizman 2014, 30) to render visible the material and sensory specificities of soil at the time of the disaster. City officials animated these qualities through data, using engineers' reports to demonstrate the soil's saturation and movement during the disaster as evidence of a landslide. Residents' accounts animated soil through the narration and performance of memory as a forensic technology, using visual and sonic recollections of the soil's qualities during the disaster as evidence. The use of memory had a specific political valence, as memory was a key technology the transitional justice regime sanctified as testimony capable of producing valid evidence of truth about the war. The use of data and memory to perform this animation had roots in what Carlo Ginzburg (2012) theorized as a historical tradition of drawing together narrative threads and material traces to produce historical truth. This animation granted soil forensic power as an evidentiary argument toward particular accounts of past disaster, and simultaneously, the proper subjects and objects of property for the future.

This production of soil as a forensic object was not the exclusive domain of experts, but rather was multiply authored, as both city officials and residents used soil to articulate divergent accounts of the disaster and its implications for property in the *comuna*. While city officials mobilized soil forensics to assess the soil's riskiness, residents contested their approach to forensics. They responded instead by inverting the forensic gaze in a type of “counter-forensics” (Weizman

2014; Keenan 2014), arguing that risk resided not in the soil, but in the war. This was one iteration of a broader trend toward the use of “counter-forensic knowledge” to redefine the terms of warfare in Colombia (Azuero-Quijano 2023). It had affinities with other sites where counter-forensics have focused on property, but with different legal materialities; unlike the documents and titles populating narratives of forensics around property elsewhere (Kohlbray 2022; Mukharji 2019), it was soil that grounded forensic and counter-forensic accounts of the Villatina disaster.

Despite residents’ counter-forensics, city officials never accepted their version of events. This led to the persistent belief among residents that they were never told the whole story behind the loss of their loved ones, an uncertainty that a local television special on the disaster called a “buried truth.” This term implied that if there were the political will to dig, the real truth might be uncovered—a sentiment also common in forensic processes around exhumations, in which the discovery of bones might simply confirm the truth everyone already knows (Rubin 2020).

Unlike in exhumations, however, the notion of one buried truth did not reflect how evidentiary arguments about the disaster or the stakes of those arguments for the reordering of property for peace unfolded. The truth was fractured and contested; there was no one clear public secret about the war to which soil forensics might be mobilized. Rather, it fed a constellation of explanations of the disaster that circulated within Medellín, used to confirm multiple conflicting theories rather than one underlying truth. This facilitated the evolution of the disaster into a narrative locus for the ongoing elaboration of a politics of suspicion, particularly of city government. This suspicion reframed the Green Belt as an elaborate cover-up, of both the cause of the disaster and the motivations behind municipal interventions around property that came in its wake.

### **RISKY SOIL AND THE TERRITORIAL DISPLACEMENT PLAN**

The evidentiary arguments that developed around the Green Belt centered notions of “risky soil” that had roots in the Villatina disaster. The tragedy had followed several natural disasters that had provoked a nationwide reassessment of risk policies: the 1983 Popayán earthquake and the 1985 eruption of the Nevado de Ruíz volcano. As Austin Zeiderman (2016) observes, the Ruíz eruption occurred in tandem with an M-19 siege on the judicial branch headquarters in Bogotá, which together created the conditions for a new national emphasis on risk prevention. It was Villatina that brought this national security culture of risk

prevention home to Medellín. City officials spearheaded a swift institutional uptake of the national focus on risk after Villatina, making Medellín's upper mountainsides an immediate target of intensified urban planning. Risk prevention policies had already led to the delimitation of *zonas de alto riesgo*, zones at high risk of landslide, flooding, or natural disasters. Soil studies by municipal agencies proved central to the determination of high risk zones. After Villatina, the city government developed resettlement, territorial ordering, and development plans focused on risk prevention, and also created new maps of high risk zones. These included significant portions of Villatina that had not previously figured as high risk (Universidad Nacional et al. 2009).

The establishment of new high risk zones had significant ongoing implications for residents. Families with homes destroyed in the disaster were relocated by city agencies to other neighborhoods, including far-flung suburbs. Those with intact homes faced new challenges to their stability. In particular, the classification of high risk zones came with strict building restrictions, which residents understood as an obstacle to titling their homes. City planning officials frequently corrected this interpretation in my conversations with them, specifying that residents could hold title to a plot in a high risk zone, but they could not legally build on it. For residents, however, the notion of holding title to a plot without building a home on it, which was their primary reason for coming to the upper *comuna* in the first place, was unimaginable. For them, a desire for property in the *comuna* fundamentally revolved around a house and the ability to stay in it.

The Villatina disaster occurred at a time of increasing violence in rural areas surrounding Medellín. Thousands of displaced families arrived in the city, and frequently the only option available was to live on the upper mountainsides. Neighborhoods were built and expanded above Villatina, and were almost entirely populated by displaced people. The Liberal Party as well as guerrilla groups sponsored many neighborhoods, organizing invasions of unused church or municipal land. Local activists talk about this time as one of political resistance against city government, fueled by organized guerrilla insurgency that sponsored invasions as a form of community organization. This resistance made the enforcement of no-build zones or the removal of informal settlements difficult for the city government, just as invasions were spreading up the mountainside.

In the late 1990s, right-wing paramilitary groups expanded in Medellín and pushed guerrilla groups out of the *comuna*. While invasions also proved central to paramilitary strategy, residents described paramilitary-backed invasions as more commercial endeavors than those sponsored by guerrillas, as paramilitaries

sold lots for around \$100–\$200 USD each. With few other housing options, displaced people purchased plots, sometimes taking loans from paramilitaries to pay for them. Those who couldn't repay loans were often forced to flee to other neighborhoods to escape retribution. Paramilitaries also targeted activists, some of whom were killed or forced out. The upper *comuna* thus became not just a receiving site for displaced people but also a site of displacement (Piedrahita Arcila and Gil Ramírez 2017). While the paramilitaries formally demobilized in the mid-2000s, armed successor groups retained control over housing markets in the *comuna*.<sup>4</sup>

As neighborhoods grew, high risk zones initially remained largely unenforced. The city government made it difficult, however, for neighborhoods to be “legalized,” as residents called official municipal recognition. While armed groups facilitated land access, residents had problems titling homes and obtaining public services in high risk zones. Neighborhood committees often “pirated” electricity, built roads, and established community water tanks themselves. City officials criticized these efforts, arguing that residents’ unplanned expansion of neighborhoods was itself “risky.” One city engineer noted to me that “they install themselves in high risk zones and create risk themselves.” A CDC employee complained that people who had built shacks on the banks of the *comuna*'s streams (all designated as high risk zones) to access water were “creating risk with their garbage.”

When Green Belt construction began in 2013, the classification of entire swaths of the upper *comuna* as high risk made residents of those areas easier targets for removal, as they couldn't legally build without risk mitigation. This situation was complicated by the fact that few residents held title to their homes. The Green Belt thus produced an air of uncertainty in the upper *comuna* of who would be removed and where they would go.

As the Green Belt progressed, risky soil became a crucial node around which different players—the CDC, residents, armed actors, the police—organized both their actions and their narration of soil as a forensic object. The CDC's initial interventions in neighborhoods focused on the enforcement of high risk zones. Although city officials had publicly promised the project would not displace anyone, some residents received relocation letters, while police or CDC employees advised others against making home improvements, given the possibility of eviction.

Yet the exact location and perimeter of high risk zones remained unclear to both residents and city employees themselves. The extent of this mystery

unfolded over several public meetings in the upper *comuna*. At one meeting, residents demanded to see a map of high risk zones. A CDC engineer pulled up a PowerPoint with a blurry image of a map of the *comuna*, dotted with pink ovals, yellow lines, and orange blocks. “What’s the pink color for?” one resident asked. “That is where people need to be relocated, according to the Territorial Ordering Plan,” said the engineer, emphasizing that these were all high risk zones.

Residents in the audience began to mutter to each other, squinting at the map, trying to identify whether they lived inside a pink oval. But the scale of the map didn’t allow for seeing blocks, or even sectors of neighborhoods. “You’ve categorized it like this, but we still don’t know which [homes] are in high risk zones,” one resident complained. The engineer shifted uncomfortably. “We still have to complete the risk study, actually. Think of it like a cake that’s already baked, but needs some final adjustments . . . the Territorial Ordering Plan says there need to be soil studies by micro-zones, which we don’t have yet.”

Soil studies were city agencies’ central evidentiary basis for classifying zones as high risk, and the audience seized on this admission of their absence. Residents began to protest, demanding soil studies before anyone’s removal. The engineer stood stolidly in front, increasingly annoyed. “High risk zones are there to protect life where you all live, to protect life!” The protest reached a fevered pitch, and one woman yelled, “The city government is going to displace us!”

Both CDC engineers and residents understood that soil studies constituted indispensable evidence for classifying high risk zones. In their absence, removals by city agencies could be framed not as protection against the risk of harm, but as displacements. The notion that the city government was “displacing” people invoked the legal category of *desplazado* (displaced person), used to determine people’s status as war victims and their rights to reparation. Residents’ use of it reframed the Green Belt as an act of war, contesting the notion that the project was turning the page on violence. Instead, people argued they found themselves once again under threat of displacement—this time, however, with the threat coming not from an illegal armed group, but the city government itself.

They made this critique by drawing on agencies’ *lack* of evidence from soil studies to imply that the city government was the source of risk. This dismantled the divide that city officials attempted to maintain between static, “natural” risks grounded in the soil and the “unnatural” risks of war and violence. They did not make this critique using documents or deeds; while these material objects were frequently mobilized in counter-forensic arguments around property elsewhere (Kohlbray 2022), they were precisely the evidence that residents lacked or that

had been used in attempts to displace them. Instead, residents mobilized soil as a counter-forensic object that people might perceive as more trustworthy than paper. Their counter-forensic arguments around soil opposed not only city officials' designation of high risk zones but also the implications of that designation for who could be a proper subject of ownership in the *comuna*, as well as the legal, political, and temporal boundaries of that ownership.

Their critique also contested the terms of transitional justice, which generally articulated displacement as a rural problem caused by illegal armed actors. By claiming they were going to be displaced, residents both identified the agent of war as the city government itself and rearticulated displacement as an urban problem. As Federico Pérez (2020) observes in Bogotá, this brought rural land-grabbing narratives into the city, where residents grounded them in urban materialities. While these materialities included physical and bureaucratic infrastructures that ethnographers have observed elsewhere (Anand 2017; Hull 2012), it was soil that proved central to both the city government's project and residents' rebuke. These arguments defied the bureaucratic division between rural and urban problems that saturated both national transitional justice efforts and municipal territorial ordering plans.

Local organizers created an image that visualized their articulation of how the Green Belt facilitated displacement by the city government and armed actors, turning the Medellín Territorial Ordering Plan logo (see Figure 1)—a mountain composed of green, seemingly contented people—into a Medellín Territorial Displacement Plan logo, featuring a mountain composed of unhappy people displaced and terrorized by armed figures (see Figure 2).



Figure 1. Logo, *Plan de Ordenamiento Territorial de Medellín* (Territorial Ordering Plan of Medellín).



Figure 2. Sticker, *Plan de Desplazamiento Territorial de Medellín* (Territorial Displacement Plan of Medellín).

This articulation of displacement underscored the stakes of the Green Belt not only for property relations but also for territorial relations, as threats of removal in turn threatened the integrity of the territory. This was related directly to the possibilities for peace, both on the local and the national scale. State officials frequently emphasized the importance of *territorial* peace, understood to involve both local peace and the recognition of land as the root of the war (Jaramillo 2014). For residents, the possibility of peace in the territory rested on their ability to have permanence within it. Their soil counter-forensics, in this sense, not only questioned the terms of transitional justice but also the very notion of transition.

Work on forensics in transitional justice emphasizes the role of forensics in knitting together relations, from democratic relations after dictatorships to kin relations fractured by disappearances. Forensic inquiry often focuses on the dead body, which takes on its own political life (Verdery 1999; Crossland 2009). Ana Guglielmucci (2020) analyzes the intimate relationship between dead bodies, land, and territory in Colombia, highlighting the ways that “displaced” corpses appearing in rivers point to broader processes of dispossession and displacement, reworking territorial and social relations. Soil forensics in Medellín invoked these intimacies between forensic objects, land, and territory by centering inquiry on the materialities of soil itself, reconfiguring both property relations and territorial relations while questioning the idea that a transition to peace was underway.

### COVER-UPS

The 2014 WUF overlapped with Colombia’s annual commemoration of Victims’ Day. Upper *comuna* residents marked the day with a march through their neighborhoods. The demonstration snaked through narrow alleyways, stopping periodically for speeches protesting the destruction of homes for the Green Belt. At dusk, we congregated around a cross marking an area declared a *campo santo*, or sacred ground, due to bodies buried there that had never been recovered after the Villatina disaster. The event organizers handed out white flowers to lay at the cross, followed by a candlelight vigil.

Armando, an organizer, sat down next to me. “That spot is where the earth opened up and split apart,” he noted, nodding toward the cross. He had gone there with a team of foreign investigators afterward and seen water spilling out of the mountain. City agencies were bringing up water for the gardens, which was why the soil was oversaturated that day, he said. “There was no evidence it was the M-19 . . . that explosion we heard was gas that hit the side of the mountain, making the earth slide down . . . the M-19 version was made up by the city

government, since they didn't want to pay the victims—couldn't pay all the victims—so they blamed it on the guerrillas. Then the *paras* [paramilitaries] joined in, blaming it on the guerrillas.” Armando drew on his memory of the soil as evidence, pointing to the water-soaked mountainside as an indicator of the city government's culpability. Like other resident narratives, his account suggested a broader critique of municipal government motives in the *comuna* in ways that resonated with residents' present struggles against the green urban governance initiatives that threatened their removal.

But Armando's account was also a story of a cover-up. While the soil's saturation led him to disagree that the M-19 had caused an explosion, he by no means concurred with the official account that it was a natural disaster. The waterlogged soils, for Armando, constituted clear evidence of the city government's own responsibility for the tragedy—a responsibility they chose to cover up by planting the false rumor that the M-19 had caused it. This dovetailed with residents' accounts of an explosion, in its conviction that the city government wanted to bury the truth. Another organizer offered just such a story that night, telling me that “the city government is the one that is interested in not telling the truth that it was an explosion—they didn't want to admit the M-19 was doing big things!”

Residents drew on these interwoven narratives about Villatina to argue that the city government was using the Green Belt to engage in a literal and figurative cover-up. An advocacy campaign by residents illustrated this view by identifying projects like the Green Belt as a form of municipal facade (see Figure 3).

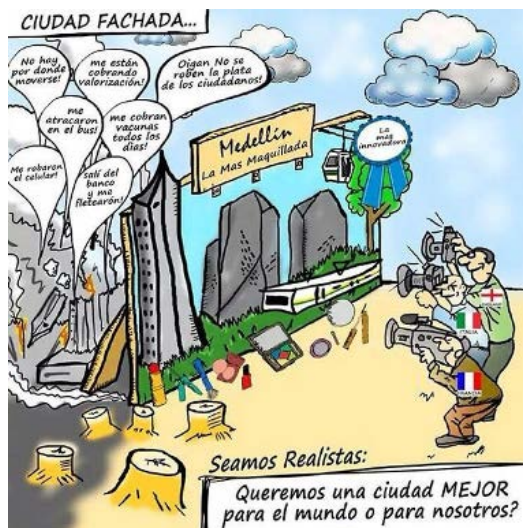


Figure 3. Ciudad Fachada (Façade City).

One campaign image that circulated, titled “*Ciudad Fachada* [Facade City]” featured a large facade with a sign stating “Medellín: La Más Maquillada [Medellín: The Most Covered Up].” The wording played on an official municipal slogan, “Medellín: La Más Innovadora [Medellín: The Most Innovative],” taken from an international award Medellín won for “most innovative city.” The term “*maquillada*” in a literal sense referred to makeup, while in the image it denoted the facade covering the real city. The facade displayed the defining infrastructure of Medellín’s social urbanism: public libraries in poor neighborhoods, green spaces, and the infamous Metro. Tourists photograph this facade, while behind it residents suffer municipal theft and paramilitary extortion as the city burns.

While many residents looked forward to the Green Belt’s parks and soccer fields, this image illustrated their suspicion that these developments were not meant for them, but rather as symbols of a green, equitable, peaceful city for foreigners to appreciate, even as war and poverty persisted. In this case, it seemed to residents that risky soil was simply an elaborate ruse created by the city government to justify their removal. This view of risky soil developed into a slogan residents often used: “It’s not a high risk zone, but a high cost zone.” The slogan reflected the perception that the *comuna* didn’t have unmanageably risky soil, but rather that it was costly to improve these neighborhoods—a cost the city government was unwilling to spend on poor, displaced people.

Residents frequently raised the example of a recent disaster in El Poblado—Medellín’s wealthiest sector, which also caters to tourists—to make this point. In October 2013, a residential tower in El Poblado called Space (in English) collapsed. Space was one of El Poblado’s many high-end complexes, with luxury interiors, a pool, and twenty-four-hour security. Only two people died in the collapse, as residents had evacuated the building the day before after cracks appeared in the walls. The collapse, however, led to a national scandal questioning the integrity of the tower’s engineers and developers.

In the upper *comuna*, the scandal unfolded largely around the apparent similarities between El Poblado and the *comuna*’s neighborhoods, and the vastly different ways in which the city government treated risk in each. There was the location of El Poblado: also on a mountainside, not significantly lower than the upper *comuna*. Pink ovals of high risk dotted the upper *comuna*, but residents noted that there was not a single plot designated as high risk in El Poblado. There was also the question of the way that Space residents had been treated. A year after the Space disaster, a resident at a community meeting in the upper *comuna* noted that “people are still talking about it because it’s rich people . . . the city

administration is still crying for those people.” Another chimed in, “And they covered the months that they were going to have to be out of the building, they sent them to the Intercontinental [Hotel]! So for some, one way, and for others, another.”

Residents also suspected that city agencies were engaged in a quite literal cover-up involving soil. Many held the belief that Green Belt construction sites were set around multiple mass graves, and that agencies were knowingly covering up unidentified human remains. And city workers had indeed found bodies, albeit by accident. In 2014, a city worker digging to place a structural support for a Green Belt eco-park hit something hard with his shovel. It was a skull. Three bodies were exhumed from the site: a grandmother and her two young granddaughters, dressed in their Sunday best. Investigators concluded that they had been heading to celebrate the girls’ first communion when they were covered with earth in the 1987 disaster. This discovery prompted renewed public discussion of the fact that city agencies were building the Green Belt directly over the *campo santo* and the unrecovered bodies it marked. The media called these bodies *los desaparecidos* (the disappeared), a term generally used for victims of violence (Macías and Loaiza Bran 2014).

The discovery led to whispered commentary about what residents called the “other *desaparecidos*” in the soil where workers were digging near the *campo santo*, victims of recent gang violence that people believed were buried in unmarked graves. City agencies were starting a search for bodies in an enormous trash heap called La Escombrera in a nearby *comuna*, where paramilitaries had allegedly buried bodies of the disappeared. What if, rather than search for the bodies of all these disappeared around the *campo santo*, the city government covered them up with their eco-park?

As with the word displacement, residents used the term disappeared to make demands by evoking the language of transitional justice. Their use of the term implied that rather than paving the path to peace through green urban planning, the city government was covering up evidence of war—and, according to people like Armando, its own culpability—with a park. The invocation of the disappeared activated multiple specters simultaneously: those that the state acknowledged as disappeared in the war, but also those never recovered in 1987, and those vanished due to gang violence in the present. As in the landscapes Yael Navaro-Yashin (2012) describes in Cyprus, these specters were instantiated within the materialities of residents’ surroundings. Residents invoked them through their arguments that the city government wanted to bury the truth,

using soil forensics to claim both property and territorial belonging as their ability to remain in their homes and neighborhoods came under threat.

Rather than confirming a single public truth, soil forensics reproduced a politics of suspicion (Davis 2023). This suspicion revolved around official accounts of the disaster, which residents perceived as intentional cover-ups: of the city government's own role in displacement, its disregard for the disappeared, its responsibility for the Villatina disaster, and above all, its inability to counter guerrilla and paramilitary violence and bring true peace to Medellín. In this sense, counter-forensic claims to displacement and invocations of the disappeared operated in tandem as resistance to the Green Belt, and simultaneously to the idea of a transition to peace.

### PUTTING DOWN ROOTS IN BORROWED LAND

The upper *comuna* was home to a community garden with a few dozen plots, planted on municipal land largely by gardeners displaced from rural farms. Usufruct contracts with city agencies established gardeners' rights to use the plots, but they could not claim title to them. Gardeners had cleaned up a log cabin by the plots, painting it and hanging begonias. It now served as a community gathering space, though for years it had been one of Medellín's *casas de pique*, a macabre reference to houses paramilitaries used for torture. Residents recounted hearing screams coming from the cabin, resonating across the mountainside. The change to a community center surrounded by gardens marked an important symbolic shift. Given the precarity of people's homes and family economies, the plots were also important for gardeners' sense of belonging and stability in the neighborhood.

With the Green Belt's arrival, however, governance of the garden began to change. City contractors started instructing gardeners about what to plant—a welcome intervention for some, and a decidedly unwelcome one for others. Gardeners felt particularly frustrated with contractors' mandate to stop planting *yuca* (cassava) and plantain, two crops they considered staples.

During a walk in the community garden with Mariana, a gardener, we discussed the crop restrictions. Mariana had removed her *yuca* and plantain, as the contractor had required. "But they are important crops for campesinos," she said, frustrated. "Those of us that don't work with [the contractor], they tried to kick us out of the gardens initially, but they couldn't, because we have papers," referring to her usufruct contract. Other gardeners described opposition to the garden from local gangs, who "didn't want anyone digging around" the mass graves rumored to lie underneath it.

We continued our walk and ran into a city employee conducting an inspection. While chatting with him, the subject of crop restrictions came up. Hearing I was a student, the employee turned toward me to explain the restrictions. “Crops like yuca and plantain *aflojan el suelo* [loosen the soil],” he emphasized. “They pull up the soil, and also retain water. This area has a history of landslides, and so it isn’t safe to plant those here.”

Mariana and I continued our walk, ending in her garden full of crops—scallions, cilantro, ground cherries. In a corner were two young plants, their broad, ribbed green leaves unmistakable. I asked Mariana if those weren’t, by chance, plantains.

Yes, they are plantains . . . after I pulled out the other ones, my son came and planted these. [The contractor] is going to pull them out at some point. They say it’s a risk . . . what risk can there be from a plantain? They just don’t want us to plant them because they are stable things. Plantain, for example, plantain is permanent. And since the land is borrowed, they don’t want it here.

This underscored how both city employees and gardeners mobilized the material and relational qualities of soil as evidentiary arguments to establish claims to the plots, and to the neighborhood. The employee cited technical assessments of the relationship of specific plants to soil (claiming yuca and plantain loosen it) and the qualities of the soil (suggesting its riskiness by mentioning the “history of landslides”). His account of soil implied that claims by residents to the plots—and the neighborhood—were temporary and contingent. Mariana contested this narrative, questioning the employee’s account of both the relationship between plantains and soil and the soil’s riskiness by querying what possible risk there could be from a plantain. She rejected city agencies’ evidentiary basis for the ban on yuca and plantain, concluding the rule was motivated by the desire to prevent people from putting down roots and making claims to permanence. This notion that crops might help establish a property claim connected to long histories of using crops to establish possession over rural landholdings (Morris 2019).

Mariana’s assessment that the city government’s goal was to impede displaced residents from making claims to plots dovetailed with the broader sentiment within the neighborhood that the city government’s image of peace did not align with residents’ desires for the future. A leader of a displaced persons’ organization in the *comuna*, Sergio, opened a meeting by narrating the problem and the horizon he imagined for displaced residents:

There's been an armed conflict and these communities have come here displaced, and they are made invisible [by the government] . . . we have to have a sense of *pertenencia* (belonging) in the territory . . . if they want to build a Green Belt by force, at least we have to say we have the right to legalization [of titles].

This called into question the state's imaginary that displaced people aspired to a return to a rural past, rather than a horizon of urban belonging. Sergio evoked belonging in its dual sense of both membership and property (Sullivan et al. 2025); belonging depended on both state recognition as part of the territory and securing title to homes.

Residents used soil counter-forensics as an evidentiary argument to contest the city government's assertions and simultaneously attempt to bring this alternative image of territorial and property relations into being. This reversed the forensic gaze, challenging the state's monopoly on the truth about both the past and the future. Acts like replanting plantains asserted a permanence that municipal agencies' crop restrictions and evictions attempted to deny. This claim to permanence demanded attention to residents' ownership of particular spaces in the *comuna* and their sense of territorial belonging. These soil counter-forensics challenged not only crop restrictions, but more broadly the official city vision that by reducing informal ownership and disorderly urban expansion, projects like the Green Belt would facilitate peace.

## CONCLUSION

Anthony Oliver-Smith (2002, 24) notes that disasters “come into existence in both the material and the social worlds and, perhaps, in some hybrid space between them.” Any attempt to explain a disaster requires attunement to those dimensions simultaneously. In Medellín, it was soil forensics that accomplished this, for both city officials and residents. They drew on the capacities of forensics as a mode of attention, animating soil as a multivalent object that could ground multiple accounts of both past and future, as both a space of death and risk and a source of productivity and speculative potentiality. If the corpse constituted the ultimate forensic indicator of physical crime, it was soil that served this evidentiary role for property as the Green Belt threatened the removal of residents from their homes. Soil, like the corpse in exhumations, became the witness to events and the category through which the material-social relations that defined property might be rebuilt. City officials and residents animated soil, drawing on

data, memory, sound, and performance in a “*materialization* of urban (in)security” (Pérez 2020, 1496) that was simultaneously evidentiary, rendering arguments about both the truth of Villatina and claims to the comuna’s future.

On the one hand, soil was a technocratic category, a form of municipal governance of the *comunas* through green urban planning, as in other urban peripheries (Meulemans 2020). Risky soil governed displaced people via their need for housing—initially through lack of enforcement and later, with the Green Belt, through removal. The city government’s narrative held that the category protected life, establishing order and restitching the social and material bodies of the nation to build peace. For residents, soil spoke to the ways their relationships to property and territory had been riven asunder both during the war and through the Green Belt. Their soil counter-forensics challenged the city government’s account, recalling the soil’s color and humidity, its specters and sacred grounds, and its role in building a stable future as evidence of the post-conflict city as facade, behind which the war kept on raging as plantains were ripped from the ground and people were evicted from their homes. They articulated this in the language of transitional justice, mobilizing soil as evidence of the city government’s role in displacement and disappearance, and to contest the idea of transition.

Both officials and residents turned to soil forensics as an evidentiary argument that simultaneously operated at multiple temporalities and scales. It was an argument about the cause of the Villatina disaster and, at the same time, one about the future of the *comuna*—about who could claim ownership and what the boundaries of that ownership would be. While the city government used notions of risky soil grounded in a forensic account of Villatina as natural disaster to deny residents the possibility of remaining in their homes, residents mobilized soil as a counter-forensic object to question this narrative and claim a permanent future in the *comuna*. These were evidentiary arguments that grounded multiple accounts of truth about past disaster and about the proper future subjects and objects of property—and, in their broadest sense, the terms, stakes, and possibilities of peace.

Soil was thus the site of multiple intertwined narratives, from state fantasies of peace through green urbanism, to resident fears of displacement and disappearance, both from the past and those to come. It was never clear if the Villatina disaster was a landslide or a guerrilla explosion, or if what was being waged in the upper *comuna* was peace or war, as the narratives around them bled together. Soil forensics were less about reinforcing a common set of facts that

might be agreed on as the truth than about providing evidentiary arguments for multiple conflicting visions of the future.

It perhaps comes as no surprise that a central locus for these plans, dreams, and nightmares would be the soil. Soil, as [Kristina Lyons \(2020\)](#) theorizes, is a site of both past and future, death and rebirth, in which one can plant new seeds of peace or dig up old skeletons of war. As [Michel Serres \(1995\)](#) reminds us, soil is not simply the stage on which war or peace is waged but also provides the conditions of possibility for victory or death. This was even more true in a place where land was understood as the root of conflict. What better place to go than the soil to understand war or to forge peace? Soil forensics offered powerful evidentiary arguments regarding the truth about the past, and order for the future, both for city officials reordering property for peace and for residents building future horizons. Bureaucratic fantasies drew on soil as the basis for maps of high risk zones that might provide order to people and property in a time of future peace. In the meantime, residents recalled earth exploding into air as the Path of Life paved over in hexagonal concrete tiles the homes of the living and the unmarked graves of the dead.

### ABSTRACT

*As Colombia attempted to achieve peace, the city of Medellín aimed to move beyond its violent past, breaking ground on ambitious green development projects to bring parks and infrastructure to the city's most peripheral neighborhoods. But these projects threatened to evict local residents, as city planners deployed maps of soils at risk of landslide as the basis for their removal. In debating removals, both city officials and residents turned to soil as a forensic site, using soil's qualities as evidence of conflicting accounts of a 1987 landslide to support their arguments about property. While forensics in transitional justice generally centers exhumations as a source of truth about crime during conflict, here it was not corpses exhumed from the soil, but soil itself that became an object of forensic inquiry. This approach challenged official narratives of transition and reconfigured both property and territorial relations, in turn shaping the possibilities for war and peace. [soil; forensics; property; evidence; transitional justice; Medellín; Colombia]*

### RESUMEN

*Durante los esfuerzos de lograr la paz en Colombia, la ciudad de Medellín aspiraba pasar la página de su pasado violento, embarcando en proyectos de desarrollo verde ambiciosos para llevar parques e infraestructura a los barrios más periféricos de la ciudad. Pero esos mismo proyectos amenazaban el desalojo de los residentes de los barrios, mientras planificadores municipales desplegaban mapas de suelos en riesgo de deslizamiento como b asis de su desalojo. En debates sobre el desalojo, tanto los funcionarios municipales como los residentes alistaban al suelo como sitio forense,*

*utilizando las cualidades del suelo como evidencia de narrativas contradictorias de un deslizamiento en 1987 para fundamentar sus argumentos sobre la propiedad. Mientras las ciencias forenses en la justicia transicional por lo general se enfocan en las exhumaciones como una fuente de la verdad sobre el crimen durante el conflicto, no fueron cadáveres exhumados del suelo, sino el suelo como tal que se volvió un objeto de investigación forense. Eso desafiaba a las narrativas oficiales de la transición y reconfiguraba a la propiedad y las relaciones territoriales, a su vez dando forma a las posibilidades para la guerra y para la paz. [suelo; ciencia forense; propiedad; evidencia; justicia transicional; Medellín; Colombia]*

## NOTES

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1. See “Villatina Recuento de una Verdad Enterrada,” Teleantioquia Infrarrojo (2012), available at <https://www.youtube.com/watch?v=gGeM1biPL8w>. This is my translation of the original Spanish.
2. *Invasión* is a legal and colloquial term referring to the taking of land without prior agreement from the legal owner.
3. Names and identifying details of individuals have been changed to protect anonymity.
4. The official term for paramilitary successor groups is *bandas criminales* (criminal bands). I use the word gang to refer to other terms—*bandas*, *combos*, *muchachos*—more commonly used by my interlocutors in Medellín.

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