Exposed and Confused
An Ethnographic Account of Environmental Suffering

Javier Auyero & Debora Swistun

October 5, 2006

Paper submitted to ETHNOGRAPHY. A preliminary version was presented at the "Practicing Pierre Bourdieu" conference, University of Michigan, September 28-30th, 2006. We wish to thank participants in this conference for their comments and suggestions.

Claudia's Suffering

In 1987 Claudia Romero moved to Flammable Shantytown (*Villa Inflamable*, located in Dock Sud, in the district of Avellaneda, Buenos Aires, Argentina). She was seven years old. At the time, her parents were working in the then state-owned YPF (Yacimientos Petrolíferos Fiscales) oil refinery. After a few years of a long commute from Florencio Varela, Claudia's parents found a place to live right across the compound that houses YPF (now the privatized Repsol), Shell, and other petrochemical companies and storage facilities. They have all been living in the neighborhood for the last seventeen years.

Claudia is now twenty-four years old, married to Carlos Romero, and has four children. Both Carlos and Claudia used to work as cleaners in two of the companies of the compound, but they lost their jobs years ago. These days, Carlos leaves the house every afternoon to scavenge in downtown Avellaneda, "up and down Avenida Mitre." "On a good week, I make around $25 (US$8)," he tells us. "Sometimes I bring stuff to sell, a pair of sneakers, or something I find in the street. And I make 5 or 10 pesos. It all depends on the kind of merchandise I bring, but now the streets are empty. It's tough. But some people give me cardboard or newspapers, some other people give me clothes or sneakers, and I sell that stuff. And we subsist… with her plan, we have nothing else." Claudia has not been able to find a job and is currently a beneficiary of the *Plan Jefas y Jefes*, a state unemployment subsidy of $150 per month (US$50) that the federal government launched after the 2001 economic collapse in Argentina. "Together," she says, "we make around $250 (US$ 82 per month)… and with that we make ends meet (*con eso tiramos*). We cook once a day, at night." For lunch, their children have bread and milk; their only full meal comes at dinner time. On the weekends, they all attend communal soup kitchens: "On Saturdays and Sundays we always go there, so that they can eat at least once…" Claudia tells us. Their gas carafe costs $24, "we don't always have the money to pay for it and we have to use wood [for cooking and heating]." Carlos tried to sign up for the *Plan Jefas y Jefes*, "but nothing happened. I made all the paperwork and nothing came through."

The Romero's pressing economic needs compete for their attention with the constant health problems of two of their children. "Two of them," Claudia remarks, "have problems. The other two came out well." The youngest one, Julian, is now five, and has been having convulsions since he was a baby:

> He was born with this mark in his head. The doctors told me it was nothing. That it was just a birth mark. He then started to have convulsions and I began to go from one hospital to another. At the Children's Hospital, he had a tomography done and it turns out that his brain is affected by that mark, which is not just on the outside but on the inside too. And now he has that angioma that is popping out. See, Julian, show it to them.

When Julian shows us the protruding red pimple, we ask Claudia about the doctors' diagnosis. "They don't explain me anything to me," she replies, "They don't know why he has that mark. I had my testing done, his father was also tested. And we have nothing. They didn't screen us for lead because they have to charge us for that. And we couldn't pay." Julian was prescribed an anticonvulsant. Claudia receives a bottle of *Epamil* a month for free

at the local public hospital, "but Julian uses 2 or 3 bottles. And it's $18 to $20 each one, and sometimes we can't afford it. I began the paperwork to see if I can get it for free. Everybody promised me but nothing happened. Papers, papers, papers… nothing but words." Julian needs to be routinely supervised for his convulsions, but it has been a while since his last check up:

> We now have an appointment for August. He can die before then but I have to wait [our emphasis]. Sometimes he has convulsions twice a day, and I have no medication. Now I don't even have money to [pay for the bus to] go to the hospital. Children here are always sick, with bronchitis, with a cold. She [referring to Sofia, her 7 year old daughter] always has headaches and stomachaches.

Sofia was born with her left leg significantly shorter than her right one: "When I had my first ultrasound, I was told that she was going to come out with problems. When I told the doctors that I was living here, they told me I should have my lead level tested. I couldn't afford the exams. The doctors told me that the lead may have caused the problem of the leg." Lately, Sofia began to show signs of serious learning difficulties at school: "She has problems remembering the numbers…it's really hard for her."

Claudia herself is not in better shape. She looks much older than 24. Half of her teeth are missing, she always looks extremely tired: "I have all the symptoms," she says referring to possible lead poisoning, "I had cramps, blood coming out of my nose, constant headaches. It's been 3 or 4 years now since I've been aching all over." When the pain is unbearable, she attends the local health center, "and the doctors give me some aspirin. I get better but then the pain comes back. At night it is even worse." When we asked about her lead levels, she tells us that the tests are very expensive for her to afford: "they are between $100 and $200."

Claudia knows that she is not the only one with an aching body and with sick children. The problem, she says, "is all over":

> I don't really understand numbers, but my nephew has 50% of lead [referring to 50 ug/del (micrograms per deciliter) far above the 10 ug/del which is considered normal]. My sister was able to pay for the lead tests because her husband works at Shell. She knew she had high levels of lead when she was pregnant […] But she is not doing anything about it. She is not in any treatment because she might cause trouble to her husband who works at Shell. If they find out that she has been tested, he might lose his job. Sometimes I want to kill her. It is as if they are scared. But I believe the children come first. What about her children's lives? Her kid is not gaining any weight. He is very thin, and he looks yellowish. He has tons of problems, but she doesn't do anything about them. There are many, many kids with problems here."

Asked about the local doctors' reactions to these troubles, she reacts: "Nothing, they say nothing. One of the doctors left because she began to feel sick and she found out she had

lead in her blood. She'd been here only a year so imagine how we are." During the course of our conversation, Claudia admits that she wants to leave Flammable but also says that she has not been looking seriously into that possibility and adds that "now they want to move all the people out of here." She is referring to a census that personnel from the municipality are carrying out in the neighborhood. Nobody knows exactly what is the purpose of yet another census (there was one just a few years ago) but they all suspect it is related to a possible relocation: "A million times they promise things. They said they were going to move us out, that they were going to make new houses for us, but there're just promises. Nobody believes anything anymore. People are really burnt out here. Shell wants this piece of land. And here, in this area of the neighborhood, we are only 22 families, so it is quite easy to remove us from here [...] I do want to leave. Sometimes you can't be outside, the odor stinks, your throat stings. It smells of gas. Even if we close our doors, it smells…"

Surrounded by one of the largest petrochemical compounds in the country, by a highly polluted river that brings the toxic waste of tanneries and other industries, by a hazardous waste incinerator, and by an unmonitored landfill, Flammable's soil, air, and water-streams are highly polluted with lead, chromium, benzene, and other chemicals. So are, unsurprisingly, its sickened and frail inhabitants. As the close to 5,000 residents of this fence-line community, the Romeros are playthings of environmental, economic, and political misfortunes – hardly of their own making. The Romeros' troubled lives illustrate the devastating effects of toxic contamination on the young bodies and minds of Flammable residents. Theirs is also a story, common to other territories of urban relegation in Argentina, of sheer economic needs stemming from the disappearance of work and of a state that has all but abandoned them. Fears about the origins and prognosis of their (and their loved ones') infirmities, uncertainties regarding the relocation efforts (un)coordinated by the local state, confusions stemming from physicians' confusing interventions, suspicions and rumors concerning the actions of the most powerful company of the compound, Shell, all abound in the lives of the Romeros and of many a Flammable resident. The product of a two-year long collaborative ethnography, this paper examines the manifold ways in which environmental suffering is experienced by Flammable residents.

This paper draws upon three complementary strands of Pierre Bourdieu's work. First, in substantive terms, we take heed of Bourdieu's concern with the experiential forms of social suffering focusing environmental suffering – a form of affliction that has been (almost completely) neglected by students of poverty and marginality in Latin America. The contaminated spaces where the urban poor live is a marginal (if not absent) concern among researchers (for two exceptions, see Scheper-Hughes 1994; Farmer 2003). To witness: a recent comprehensive review of studies of poverty and inequality in Latin America published in the *Annual Review of Sociology* (Hoffman and Centeno 2003) and a symposium on the history and state of the studies of marginality and exclusion in Latin America published in *Latin American Research Review* (González de la Rocha et al. 2004) make no mention of environmental factors as key dimensions of material deprivation. Ethnographies of the urban pariahs of Latin America have failed to take into account one simple, essential, fact: the poor do not breathe the same air, drink the same

water, or play on the same grounds than others. Theirs is an (often polluted) environment that has dire consequences for their present health and future capabilities and about which scholars (us included) have remained silent for a long time.

Second, in methodological terms, we combine the kind of reflexive ethnography Bourdieu advocated for with the use of photography. Regarding ethnography: We conducted team ethnographic research. Javier Auyero conducted most of the interviews with officials, company personnel, activists, lawyers, and carried out the needed archival work. Debora Swistun conducted most of the interviews and life stories with residents. She was born and has lived all her life in the neighborhood; most of the people she talked to during the course of this two year long project are her neighbors, some of whom have known her since she was born and are friends or acquaintances of her family. The interviews and life stories were carried out more as conversations among neighbors than as the typical exchange of information that, despite best intentions and good rapport, still dominates this particular kind of social relationship. Familiarity and social proximity were extremely useful in reducing as much as possible the symbolic violence exerted through the interview relationship (Bourdieu 1999). Regarding photography: At our request, youths at the local school took pictures of their neighborhood.[1] We conceived of these photographs as "lay sociograms" (Bourdieu & Bourdieu 2004) (i.e. diagrammatic representations of the ways in which young residents perceive their environment), and we rely on them (and on some of our own pictures) to introduce the reader into the space of Flammable. Ethnography and photography are here combined to understand and explain residents' toxic experiences. The analysis that follows is based on images, interviews, life stories, and most importantly, direct observation. In other words, the text that follows is, to a great extent, based on traditional ethnographic fieldwork here understood as "social research based on the close-up, on-the-ground observation of people and institutions in real time and space, in which the investigator embeds herself near (or within) the phenomenon so as to detect how and why agents on the scene act, think and feel the way they do" (Wacquant 2003:5).

Third, and most importantly, we empirically explore the relationship between objective space and subjective representations (or habitat and habitus) in one specific (poisoned) universe. In particular, we seek answers to the following question about "site effects" (Bourdieu 1999): How do residents who have for years been regularly exposed to a poisoned environment become accustomed or somehow attuned to the regularities of a dirty and contaminated place, to its noxious fumes, polluted waters, and contaminated grounds? To answer this, we combine Bourdieu's insights on the presence of the structures of the social world in the cognitive schemes that agents use to understand it, with classic and recent scholarship on the aftermath of disasters (Erickson 1976, Das 1995, Petryna 2002) and on the collective production of knowledge, ignorance, and

[1] In July 2005, we asked thirteen students of the 9th grade in the local school to divide themselves into groups (five groups of two students each and one of three students) and gave them disposable cameras containing 27 exposures each. They were told to take half of the pictures on things they liked about the neighborhood and half on things they did not like. We gave them no further instructions. They all returned the cameras providing a total number of 134 pictures. We will use a selection of the pictures (those that better represent the recurrent themes) and excerpts from the interviews we conducted with these youngsters to introduce the reader to the space of Flammable. For a more thorough examination of youngsters' pictures, see Auyero & Swistun (2007).

mistake within organizations (Vaughan 1990, 1998, 1999, 2004; Eden 2004). These two separate (and seldom overlapping) bodies of scholarship agree that knowledge about the environment, far from being shaped by the physical world, is socially determined.[2] Mediating between the (contaminated) environment and the subjective experiences of it we find cognitive structures (DiMaggio 1997), frames (Vaughan 1998; 2004; Eden 2004), or schemata (Bourdieu 1977; 1998; 2000) that, deeply shaped by history and by discursive and practical interventions, give form to what people know, think they know, ignore, and/or (mis)interpret.

To foreshadow our main findings: There are multiple, confused, (and oftentimes) contradictory points of view on the polluted habitat. There is also widespread blindness (a non-view, so to speak) regarding sources and effects of toxicity. Against simplistic and one-sided representations (created from the outside, mainly by the media) that construct Flammable as a place inhabited by people who think and feel about toxicity in a single, monolithic, way, long-term ethnography reveals the presence of a diversity of coexisting views and deeply-held beliefs. There is neither a determined crowd up in arms against toxic assault nor a population completely adjusted to contamination: Flammable is dominated by doubts, ignorance, mistakes, and contradictions sometimes transforming into self-doubts (regarding the "true" extent of contamination) and into divisions ("they, the shantytown dwellers" are the ones who are "really polluted") but mainly translating into an endless waiting time – waiting for further testing that will "truly" show the effects of pollution, waiting for an always "imminent" state relocation plan, waiting for a "huge" settlement with one of the "powerful companies" that will, in the words of a neighbor, "allow us to move out." This waiting, we argue, is one of the main ways in which Flammable residents experience submission to an overwhelmingly damaging reality.

The paper begins with a brief overview of the literature that examines varieties of toxic experience. Here we note the lack of attention to the confusion and the "not knowing" that characterizes places such as Flammable. The second section of the paper briefly describes the community's history and present predicament. Two are the dominant themes: an organic relationship with the adjacent petrochemical compound (mainly with Shell, the biggest company within it) and increasing environmental degradation. Views about the compound and about contamination are marked with suspicions, doubts, and confusions. This "booming and buzzing" toxic uncertainty is the subject of the third and main section of this paper. To conclude we venture some possible explanations about this toxic confusion by outlining the different sources of uncertainty. Throughout the text we illustrate some of the themes addressed relying upon the pictures taken by youngsters and by ourselves.

To summarize in telegraphic form the (simultaneously theoretical and empirical aim) of this paper: Bourdieu's assertion (2000:140) – "we are disposed because we are exposed" – is here taken literally and scrutinized empirically. Exposure to contamination

[2] To take one classic example: In his work on the individual and collective traumas created by the Buffalo Creek flood, Kai Erikson (1976) examines the effects of the disappearance of the relational support that allows people to "camouflage" the constant presence of danger. As Erikson asserts: when a community is destroyed, members cannot be part of the "conspiracy to make a perilous world seem safe," (240) they are unable to "edit reality in such a way that it seems manageable" (240). This masking of hazards, Erikson works clearly shows, is a collective, relational work.

engenders a set of confused, contradictory, and mistaken understandings (*mis-cognitions*) that translates into a long, impotent, and uncertain waiting time – a time oriented to others (state officials, doctors, company personnel), an "alienated time" (Bourdieu 2000:237) which Flammable residents share with all dominated groups.

TOXIC EXPERIENCES

We are certainly not the first to study the ways in which people think and feel about toxic dangers. There is, by now, a long tradition in U.S. scholarship that grapples with variations of the same theme. A number of studies have chronicled the origins, development and outcomes of collective actions organized against the presence of pollutants in several communities in the United States and have examined the views and sentiments of affected residents (Levine 1982; Bullard 1994; Brown and Mikkelsen 1990; Couch and Kroll-Smith 1991; Checker 2005; Lerner 2005; for a recent review of research on and protest against environmental racism, see Pellow 2005). Although diverging in methodology, analytic depth, and empirical focus, a typical sequence can be extracted from most of these accounts: collective ignorance about the presence and impact of toxins is interrupted when a neighbor or a group of them, in many cases "irate housewives turned into activists" (Mazur 1991:200), begin to make the connections between their place of residence and the existence of certain illnesses, between illness and toxic waste, and between his or her individual problems and those of others. Brown and Mikkelsen (1990) coined the term "popular epidemiology" to refer to the process through which victims "detect" a disease pattern (in the case they closely reconstruct, a leukemia cluster in Woburn, Massachussets). This process of <u>discovery</u> of danger, of increasing <u>awareness</u> about the effects of surrounding toxins, is usually spearheaded by residents-turned-into-activists: Larry Wilson in Yellow Creek, Key Jones and Kathleen Varady in Pennsylvania, Anne Anderson in Woburn, Margie Richard in Diamond, and the now legendary Lois Gibbs in Love Canal, are the best-known examples of stubborn, almost heroic, leaders of "long and bitter" (Clarke 1991) struggles. The typical sequence also includes an active process of <u>learning</u> (and a great deal of frustration) in which victims become skilled at playing political games with authorities and quickly absorbing scientific knowledge.

Despite divergent theoretical orientations most of the available accounts seem to share a classical Marxist model of consciousness: physically proximate aggrieved people overcome false beliefs or persistent uncertainties through reflection and interaction. The outcome of this process of "loss of innocence" (Levine 1982; Cable and Walsh 1991) is, almost always, a single and determined consensus regarding the problem and its solution – tellingly, the main actor in most of the chronicles is "the community." In emphasizing changes in collective perceptions of legitimacy and mutability of objective conditions, most works portray – either implicitly or explicitly – a variation of what Doug McAdam termed, a while ago, "cognitive liberation," i.e. the "transformation from hopeless submission to oppressive conditions to an aroused readiness to challenge those conditions." (1982:34)

In its almost exclusive focus on successful cases (i.e. cases in which communities were either relocated, compensated and/or cleaned) and in its emphasis on the ultimate

achievement of a shared consensus regarding sources, effects, and solutions to contamination (communities that "discover" and know about surrounding toxicity), extant literature leaves cases such as Flammable in the shadows.[3] Most of what we know about environmental injustice and the emergence of collective action against those responsible for contamination is of little analytic help to understand and explain cases in which there is neither a clear outcome nor a single shared consensus on the very existence of a problem, less so its potential solution. When confronted not with cognitive liberation and protest but with the reproduction of ignorance, doubts, disagreements, and fears, we are at a (analytical and theoretical) loss.

Many people in Flammable know about contamination but interpret the information in different, sometimes contradictory, ways. Many other people ignore and/or are uncertain about the presence of toxins in the environment and/or about the relationship between exposure and disease. Paradoxically, as the contamination of air, water and soil increased over the years, residents became less certain about its extent and effects. When confronted with cases such as Flammable in which residents are divided (there is no single community to speak of) and confused, a place where ignorance is routinely reproduced and risk is constantly normalized, we thus need to resort to an alternative framework: one that makes the perpetuation of ignorance, mistake, and uncertainty the center of analysis. In Flammable, what calls for an in-depth examination is the "not-knowing" that is a constitutive part of the way in which social domination works and of the residents' toxic suffering.

[3] Francoise Zonabend's (1993) study of the experiences of those living alongside a high-risk nuclear waste reprocessing plant (a combination of selective blindness, denial, indifference, fatalism, "not wanting to know," and fear) is one of the few exceptions.

PICTURES ONE & TWO: The compound as seen from Flammable

Flammable shantytown is located in the district of Avellaneda, on the southeastern border of the city of Buenos Aires.[4] According to the last available figures, in 2000 there were 679 households in Flammable. It is a fairly new population: 75 percent of the residents have lived in the area for less than 15 years. Although there is no exact count, municipal authorities, community leaders, and people who live or work in the area (in the petrochemical compound, the school, and health center) told us that in the past decade the population increased at least fourfold – growth fed by shantytown removal in the city of Buenos Aires and by immigration from other provinces and nearby countries (Perú, Bolivia, and Paraguay). Internal differences separate a small sector composed of old-time, lower-middle-class residents from the majority of newer, low-income dwellers. As we will see in the next section, these internal differences between the old neighborhood and the recent shantytown are crucial to understand the meanings and experiences of contamination. Scavenging, state welfare programs, and part-time manual jobs in one of the companies in the compound offer the main source of subsistence in Flammable.

Flammable shantytown is, in many ways, similar to other poverty enclaves in urban Argentina, deeply affected by the explosion of unemployment and the ensuing misery of the 1990s (Auyero 1999). What distinguishes this poor neighborhood from others, however, is the particular relationship it has with the compound's main company, Shell-Capsa, and the extent of the contamination that affects the area and its residents.

PICTURE THREE: "I don't like Shell because it brings pollution… I don't know how much lead we have in our blood" (Photo taken by Manuela, Ninth Grade, Flammable School)

[4] The name "Flammable" is quite recent. On June 28, 1984, there was a fire in the *Perito Moreno* oil ship harbored in the nearby canal. The ship exploded and produced, in the words of an old resident, the "highest flames I've ever seen." After the accident, remembered by everyone as a traumatic experience, companies in the compound built a new (and according to experts, safer) dock exclusively for flammable products; a dock that soon gave a new name to the adjacent community – formerly known simply as "the coast."

The brick walls and guarded gates that separate the compound (the site of six major petrochemical companies and numerous small ones) betray the organic connection that, for more than 70 years, Shell-Capsa has had with the community. The first Shell Oil refinery opened in 1931. Since then, together with the other chemical, oil, and electrical companies within the compound (notably YPF, Meranol, Central Dock Sud, and now Petrobras), it has attracted eager workers who came from the provinces to look for work in Buenos Aires. In the life stories we collected, older residents remember an abundance of work in the area. They also recall the lack of housing close to the compound and their strenuous efforts to build what initially were shacks in the middle of swamps (still, today, there are lowlands in the center of the neighborhood). Filling in the surroundings appears in old timers' narratives as a very important joint activity of those early days – and it still is, according to our interviews and observations. Health practitioners in the area claim that one of the possible sources of local contamination might be the very materials, often packed with toxic waste, that people in the neighborhood have used (and still use) to level their plots.

PICTURE FOUR: "It's all dirty…" (Photo taken by Carolina, Ninth Grade, Flammable School)

PICTURE FIVE: "This is my aunt's backyard" (Photo taken by Yesica, Ninth Grade, Flammable School)

There are several main elements of the material and symbolic entanglement between the neighborhood and Shell, or *la empresa* as residents call it. Historically, Shell provided formal and informal jobs for men (who worked in the refinery) and women (who did domestic work such as cleaning and baby-sitting for the professional workforce within the compound). Old-timers remember not only working for Shell, but also attending the health center located on the company's premises, obtaining drinkable water from the company, and receiving pipes and other building material from the company. Less than a decade ago, Shell funded the construction of the health center in the neighborhood (a center that employs seven doctors and two nurses and has a 24-hour guard and an ambulance, something that is quite uncommon in poor neighborhoods throughout the country). Although, after automation of many of its operations, Shell is no longer the main employer in the community, it still provides jobs to residents, young and old. Furthermore, Shell routinely grants funds for the local school in what a company engineer we interviewed defined as a "social performance plan." Among the services the company funds are a nutritional program for poor mothers that includes the distribution of food; computing classes for local students (held inside the Shell's compound); windows, paint, and heaters for the school building; the end-of-the-year trip for graduating classes of the local school; t-shirts with the Shell logo for student soccer, volleyball, and handball teams; and toys for the school-kids during the celebration of Children's Day. Through its community relations division the company seeks to follow what a former municipal official calls a "good neighbor policy." Shell's presence undoubtedly distinguishes Flammable from other poor communities.

PICTURE SIX: An open-air dumping site (Photo taken by Nicolas and Manuela, Ninth Grade, Flammable School).

Flammable is also different from other destitute neighborhoods throughout Buenos Aires in the extent (and known effects) of its air, water, and soil pollution. Experts (from both the local government and Shell) agree that, given the air quality associated with the compound's industrial activities, the area is unsuitable for human residence. The place has also been used as a dumping ground by many nearby companies. It is still used as an open-air waste disposal site for subcontractors who illegally dump garbage in the area (we witnessed several occasions of this during our fieldwork). Many of the pipes that connect homes to the city water supply are plastic; defects in the joints and breaks allow the toxins in the soil to enter the stream of the officially defined "potable water." A nauseating stench often comes from these garbage disposal sites, from putrid waters filled with this same garbage, and from the chemicals stored and processed in the compound.

One epidemiological study compared a sample of children between seven and eleven years old living in Flammable with a control population living in another poor neighborhood with similar socio-economic characteristics but lower levels of exposure to industrial activities (PAE 2003). In both neighborhoods, the study found, children are exposed to chromium and benzene (both known carcinogens) and to toluene. But lead, "the mother of all industrial poisons… the paradigmatic toxin [linking] industrial and environmental disease" (Markowitz and Rosner 2002:137), distinguishes the children of Flammable from the rest. Fifty percent of the children tested in this neighborhood had higher-than-normal blood levels of lead (against 17 percent in the control population).[5]

[5] 10 ug/del (micrograms per deciliter) is now considered to be a normal blood level of lead. On the history of lead epidemiology, see Berney (2000) and Widener (2000). On the history of "deceit and denial" concerning the pernicious effects of lead, see Markowitz and Rosner (2002). See also Warren (2000).

Not surprisingly, given what we know about the effects of lead in children, the study found lower-than-average IQs among Flammable children and a higher percentage of neurobehavioral problems.[6] The study also found strong statistical associations between frequent headaches and neurological symptoms, learning problems, and hyperactivity in school. Flammable children also reported more dermatological problems (eye irritation, skin infections, eruptions, and allergies), respiratory problems (coughs and bronco-spasms), neurological problems (hyperactivity) and sore throats and headaches.

Where does the lead come from? The study is inconclusive. Lead in the air of Flammable is two and a half times higher than the state threshold. The small river that borders the shantytown is also contaminated with lead (and chromium). Experts also point to the material buried in the ground on which the children play as another possible source of lead poisoning. They also told us that, for a long time before laws regulating toxic waste disposal existed, the companies within the compound used Flammable as a free dumping zone. Lead, in other words, might be coming from everywhere.

TOXIC CONFUSION

As we foreshadowed, there is clearly no single, monolithic, "Flammable point of view" on pollution and its health-related effects. Perceptions range from outright denial to critical awareness, from doubts to deep-felt convictions; beliefs, in turn, are sometimes factually accurate, other times completely mistaken. These diverse views sometimes co-exist within the same individuals: people who seem to be certain about the extent of air pollution in their neighborhood but who (wrongly) displace the issue of lead-poisoning to the nearby shantytown or who are adamant about what the plants are doing to the quality of the environment but are either incorrect about who is doing what and/or seem unaware of their own hazardous practices regarding land-filling. Despite all this diversity, we were able to identify some common themes which point to the existence of shared, subjective but not individual, categories of perception and evaluation regarding sources, extent, and effects of industrial pollution. Let me present them through three separate stories (though these themes usually co-exist within families and, even, within individuals).

Denial and Displacement

Many people in the old part of Flammable, the one that sits right across the compound, do not think of Shell as a contaminating source. Some of those who have worked inside the plant, like 77 year-old García, recount their own experiences in the plant to assure us that it is safe, and that its premises are cleaner than we might think. When confronted with the

[6] Lead accumulates in the human body (in the blood, in tissues and bones) in proportion to the amount of lead found in the environment. Lead in the environment results from the use of lead in industry. Lead absorption (measured in feces, urine, blood, and other tissues) is the indication of exposure and poisoning (Berney 2000:238). According to the U.S. Environmental Protection Agency, lead "may cause a range of health effects, from behavioral problems and learning disabilities, to seizures and death."[6] Lead is a poison that affects the brain, kidneys, and the nervous system in many subtle ways and at low levels. Extremely high exposure to lead "cause encephalotpathy and death, lower doses cause severe retardation, and lesser doses lead to school problems, small but significant shifts in IQ, and other measures of central nervous system function" (Berney 2000:205).

lead study, García and his wife Irma (69), assert that that is not an issue where they live; lead afflicts the shantytown dwellers – not them. They are healthy, they have lived long lives so, their argument goes, nothing can be that bad in the environment. Others, like Silvia quoted below, are convinced that contamination is exclusively a shantytown problem.

> Debora-People talk about all these contaminated children… what do you think about that?
> García-I don't know, I don't know what contamination. They blame the coal [coke] plant, but the whole [industrial] process is closed, nothing is vented into the air. Years ago, the coal was all processed in the open… not even a single coal worker is alive, that was unhealthy…
> Irma-But not now…
> García-No, not now. Listen, I worked there [in Shell] for 38 years… they used to make gasoline with lead, but not anymore. I worked at the gasoline tanks, and I never got sick […] When the Japanese came [reference to the study conducted by the Japanese Cooperation Agency] they didn't find anything. Shell is less contaminated than the Federal Capital.
> […]
> Debora-Do you know about the study [i.e. the lead testing]?
> García-But that's [because of] all the filth thrown by the *Compañía Química* [Chemical Company, inside the company]. They threw acid… in the houses that are on the other side, if you dig a little it's all full of filth, debris…
> Irma-They brought garbage here…
> Debora- Here too?
> García-No. Here we filled with soil…
> Debora-So, how about the study?
> García-I don't know… but don't forget that those kids are always barefoot.
> Irma-The other day, three kids from the shantytown were swimming in a small lagoon that was formed after a rain […] but they are not from here, they are from *el fondo* (the shantytown)… they might be contaminated.
> García-But not from the air, contamination is an issue there [in the shantytown].
> Irma-In the landfills, in the landfills…
> García-If this were contaminated, imagine: she's been here since 1944, and I've lived here since 1950, we would be dead or sick but we've never been sick because of contamination (*no tuvimos ninguna enfermedad de la contaminación*) […] we've lived our whole life here. I'm about to turn 78, and your [Debora's] grandfather is 90. And we never got sick.

> Silvia-[The kids who are contaminated] are all from there [the lowland, the shantytown]. None of the kids from here have anything… Sometimes I wonder if I or my kids are contaminated. How long have you lived here?
> Debora-Since I was born…
> Silvia-My daughters are your same age… It cannot be true that people who got here recently are contaminated, and they say it's because of *la empresa*. I don't

> know. I never felt sick. Sometimes I have bronchitis, or angina, but they never found anything in my blood. They [the children] get sick because all the garbage that they themselves collect. Not to say anything about the smell, it's a pigsty. Besides the smell that comes from the factories…

Toxic Death

In the many formal interviews and informal conversations we have with neighbors, the issue of contamination comes out differently. Sometimes, residents bring up the subject spontaneously when speaking about how the neighborhood used to be ("this was all clean, now it's all contaminated") or when speaking about their daily routines ("With all the smell coming out from Tri Eco, I close my windows at night"). Other times, unless we make a specific inquiry about it (as with García and Irma), the issue remains submerged – evidence of the taken-for-grantedness or denied character of pollution. Catalino does not wait for our questions. Early into our first conversation, he begins a long meditation – not always factually accurate – about the source, form, and impact of industrial pollution. It is interesting to note how he moves from inside the compound outwards to Flammable's water, air, and soil. Note also that he brings up the issue without our prompting and then he comes back to the issue even when talking about something different – evidence that, for him, "contamination is all over" – and links it – as many other neighbors – to governmental corruption.

> Catalino- I used to work in construction. Most of the foundations of the tanks are made of concrete so that they can stand all the vibrations…
> Debora- The vibrations?
> Catalino-There are machines, valves, because all the pipes carry gases. There are turbines, compressors…. There are machines that work with atomic power. There's contamination inside, where the machines are there's a lot of contamination, but nobody says anything here […] I'm talking about Shell, inside Shell. That coal [coke] plant should not be there. It came from Holland, and then [Governor] Duhalde and [Finance Minister] Cavallo and [Environmental Secretary] Alsogaray came, they received a lot of money, and so they shut up. Tri Eco is burning (i.e. incinerating) human bodies and that causes lung cancer. And who allows that to happen? The authorities, because they are all corrupt. Those chimneys should have filters, because they contaminate. When I go to sleep, sometimes I have to close the windows because of all the gases that come in.

Different from others who use their own health to deny (or question at least) the existence and extent of pollution, Catalino remarks time and again on his own good health <u>despite</u> the surrounding contamination. He knows, intuitively at least, that different organisms respond differently to toxic assault: "See, fortunately I am a healthy person because, if not, I should be hyper-contaminated after 43 years here." But not everybody, he thinks, has been that lucky. He remembers his neighbor Virgilio, who had a farm nearby and who, he believes, was poisoned and died unexpectedly:

> I used to ask Virgilio whether the water he used to drink in his farm was good or bad. 'We've been here for 100 years,' he told me, 'if it were contaminated, we would have died years ago.' I had my suspicions and I never drank from the water spigot in his farm. One day we had to carry the old man to the hospital, he had nausea, he had this white thing coming out of his mouth, as if he were poisoned. We took him to the hospital and he never came back.

"Contamination is all over… this has always been contaminated," Catalino repeats oftentimes. To him, the lead contamination that became big news in the neighborhood three years ago is no surprise:

> Listen, the air that we breathe has lead, the water the kids drink have lead. If they ever drank water from YPF, that water is contaminated. How can I explain it to you? Contamination is terrible […] Do you remember Pichón who used to work at Dapsa? Well, he had a car. Everytime he left the car parked outside, it got corroded because of the acid that falls from the chimneys […] the land in which kids play is all contaminated, they play soccer there, day and night […] contamination is latent, everywhere […] If those kids don't get treated, those kids… lead is a fatal poison, in the long run it damages your heart.

Catalino is so adamant about all the bad things in Flammable that we wonder out loud how come he never left the neighborhood. Our question, formulated over the course of an extended conversation, did not produce the artificial response typical of survey questionnaires but a reflection on all the things that slowly tied him to this polluted place. If properly read, we can detect how the slow period of incubation of industrial pollution (in which farms slowly disappeared, streams got darker and dirtier, soils became filled with toxic garbage and debris) was lived mainly as a period of attachment to, of taking roots in, the neighborhood through work, family, and friendship networks:

> Debora-Did you ever think about leaving the neighborhood because of all this contamination?
> Catalino-No. I came here for three months and I'm still here. From 1962 to 2005, you do the math, I became fond of this place (*me encariñe*).
> Debora-Three months after which you planned to go elsewhere?
> Catalino-No. I thought it was going to be only a three-month period because after that I was going to leave so that the kids had better opportunities to study. And then, things began to work out, I made more friends here. The kids were able to take the bus to school. I had my little farm (*quinta*) too…I am from the Laguna del Iberá. I was born and raised among animals, alligators, snakes… and I came here and I found myself among the same little animals which reminded me of my place. And I had my *quinta*, and a job. Thank God I always had a job. And then… this was a small neighborhood. Four or five families, we all knew each other, we were like a family. We use to take care of each other. It was beautiful. I had nothing to complain about. I used to set the table out in the sidewalk and the neighbors came to eat. It was great […] I had plenty of work here…in Dapsa, in

> Shell. It was really peaceful (*tranquilo*) here; I left my clothes out and nobody would touch it. You could sleep with your doors open, and nothing happened, we all knew each other (*eramos todos paisanos*).

One day, Catalino closed his doors because he heard a neighbor got robbed; another day he closed his windows because of the foul smell coming from the smokestacks; some other day he stopped tending his clothes outside because they got dark with the dirty air or because they got stolen. Who knows which reason came first? What we do know is that as things were slowly changing for the worse Catalino was building up a family, enjoying his friends, and working, "always working." As the air, water, and soil got filthier, Catalino was busy living his life. As simple as it sounds, the process through which Catalino and most of the old-timers in Flammable went through is crucial to understand how they think and feel about this (contaminated) place – not in the way an outsider would but in a way that is thoroughly embedded in history and the routine organization of daily life.

Uncertainty

Felisa is a beneficiary of the *Plan Jefas y Jefas*; in exchange for the subsidy she works part-time in the local health center – scheduling appointments for the several doctors that work there. Talking with her we realize how practical knowledge about a dirty and contaminated place coexists with, on the one hand, discursive denial of the effects of contamination and, on the other hand, practices that may cause further poisoning and about which many a resident remains blind.

Felisa knows, in practice, about the effects of dirt and contamination. Her son was recently bitten by one of the hundreds of rats that thrive in the middle of the garbage that accumulates in nearby swamplands and streets. Rashes and pimples (*granos*) are the most common causes of visits to the health center, she says. The doctors told her that they are caused by contamination. She also knows in practice how the state neglects the seriousness of the issue. As part of the center staff, she coordinated the lead screening and treatment for local children which is now suspended; suspension that she attributes to how local politics work:

> The treatment is about to start again; but I don't know when. The local government wants us to send the information again. This is a new administration, and everything we did before was with the other administration. And now everything changes, the files get lost and we have to start looking for the children again. And that's how it goes. If there's a new mayor, we have to start all over again.

Despite all this practical knowledge, she does not seem to acknowledge that her own actions might be perpetuating the contamination of her own home. Since her backyard is still, in part, a swampland, she and her husband routinely ask the trucks that bring garbage and debris to the dumping site located closeby to unload the content in front of their home. They then take all the (possibly toxic) trash to the back. As attested in the

following interview excerpt, Felisa admits that the place might be contaminated. She remains uncertain about the real risk however since her daughter is "not contaminated." As of herself, she cannot be sure because she cannot afford the costs of the medical examinations.

> Felisa-I don't really know [if pollution] is coming from the factories. They blame the coal plant. I had my daughter examined and she was not contaminated. Doctors say it's because she goes to school outside the neighborhood, and because she is not constantly here, and because at night there is not so much pollution. I don't know, it's strange. She was born here and she always lived here; so I don't really know what to say about the children who are contaminated with lead…
> Debora-Do you think that the air and the soil are contaminated?
> Felisa-Well, yes, it has to be contaminated. There are days in which you can't be here because of the smell. And the soil too, plants live because they are plants. We are in a place where we cannot say there's no pollution. With so many factories, yes. We might be contaminated ourselves but since the adult population (*los grandes*) was not examined, we don't know. But the exam is expensive, and you can't do it by yourself. You can't afford it, *so you don't really know if you have something*.

EXPOSED & CONFUSED

PICTURE SEVEN: "This is the street where I live" (Picture taken by Samantha, Ninth Grade, Flammable School)

With the black and white smoke coming out from the surrounding smokestacks, with the constant noise of alarms and heavy trucks, with the random odors of gas or other pungent substances, with the surrounding garbage and dirt swamplands, it is hard for anybody to deny that, as many a neighbor told us, "there is something here." And yet, when they have to talk about the specifics of contamination, when they have to put a name to the sources, location, and contents of pollution things get murky. Disputes abound when neighbors speculate out loud about the deleterious health effects of pollution.

Oil, for example, is said to contaminate water streams; it is also said to be harmless (the real problem not being the refinery but the storages of chemical substances); the refinery is believed to be completely safe or highly contaminating; the coal processing plant is seen as poisonous (so much so that it was "banned," according to many residents, from Holland) or innocuous (perceived as safe because it is "closed"); Shell itself is seen as "the safest plant" or as the "worst of all," "giving presents around to cover contamination." With lead, however, discrepancies take a different form. Nobody denies that lead is harmful but most displace it elsewhere: it is not located in the neighborhood but in the shantytown, it is not stored in their (or their children's) bodies but in those of the shanty-dwellers. Although the epidemiological study showed no clear clustering or patterning of the lead cases, most people we talked to believe that lead is a real problem in the shantytown where kids play barefoot, where they do not wash their hands, where they bathe in dirty waters. Rather than the environment itself, permissive mothers are, in this way of reasoning, those responsible for exposing children to lead.

Where does contamination come from? In neighbors' views, pollution is intricately related with governmental corruption – at every level of the government, from the mayor and the governor to the president. Plants (the Shell oil refinery, the coal processing facility, the hazardous incinerator, other refineries and chemical plants – past and present) contaminate because government officials allowed them to do so, and they allowed that to happened – so the generalized perception goes – because they were bribed. Rumors about the companies of the compound buying people off are not, however, restricted to government officials. The common perception is that companies can (and routinely do) buy their way out of trouble. Catalino nicely encapsulates the widespread conviction about the two-fold origin of pollution (from the smokestacks and from the government) in a single phrase when saying that "contamination comes from above" (*viene de arriba*).

How serious an effect does contamination have? As said, it is a matter of common knowledge that there is "something" in, mostly, the air – there is less certainty or awareness about ground and water pollution. But one thing is what people know (or say they know) and another thing is how people interpret this information (Eden 2004, Vaughan 1990, 1998). On the one hand, one way of thinking and living pollution acknowledges its existence but denies its seriousness. And adults in Flammable use their own bodies to support that belief: after all they "never had any health problems." On the other hand, another viewpoint expresses doubts concerning contamination's true effects because, so Flammable residents express, "they don't know yet." Countless of times we heard neighbors saying that they don't really know if they are "contaminated" – as if it were a black and white proposition, something that you have or you do not – because they have not yet been "tested."

Some people know contradictory things, they acknowledge the extent and severity of pollution but they also point the blaming fingers to the victims' own behavior as the true source of the contamination. Marga, the president of the local improvement association, illustrates what we think is a generalized uncertainty. As many others, Marga thinks "contamination is terrible. If you think about it and you start mulling over it, you want to leave this place right away." She thinks of the compound as "a world apart. Most of the time you have no idea what's going on inside" (as every single person we talked to, she doesn't know the number of plants located within its premises). In talking about Flammable's past, Marga is convinced that the small farms that used to abound in the neighborhood disappeared because of all the industrial waste: "the soil was all contaminated, it stopped being useful." However, when speaking about the present, she expresses doubts about the true origin and form of lead contamination: "We should not put all the blame in those at the top. Parents are also responsible because they never cared to attend to their children and to see what could be done." She also says that she has many "doubts" regarding the degree of contamination: "I don't really know if I am polluted or not… I don't even know what the symptoms are." And yet she asserts, matter-of-factly, that the water streams are highly infected and that the shantytown population is deeply affected: "We are all responsible because we allowed these people [the shantytown dwellers] to settle there and we didn't provide good pipes for the water…" As many others, she links pollution to governmental corruption: "The firms [in the compound] are not the sole wrongdoers. The municipal government did nothing to stop all those garbage dumps out there."

"So, you don't really know if you have something," says Felisa and many – although surrounded by foul smells of chemicals and garbage, although knowing the place is contaminated – agree: Flammable might be contaminated, but I'm not – or, I don't know "yet." In other words, many residents concur that the neighborhood is contaminated; they have diverse interpretations regarding the extent of contamination (its spatial distribution) and its concrete (health) effects. Pollution facts are, from the poisoned point(s) of view, sometimes accurate; other times they are either mistaken (contrary to a widely held belief, lead contamination is not clustered in the shantytown), unnoticed (as when their own risk-perpetuating land-filling practices are overlooked), or misinterpreted (as when they use their own bodies to challenge the true impact of toxics).

Sustained exposure to contaminants generates widespread confusion among Flammable inhabitants. This uncertainty makes residents wait. We now turn to a description of this "waiting time" because we think it is a crucial dimension of Flammable's toxic experience.

WAITING TIME

In a way, residents in Flammable share the same fate with all dominated groups. They are condemned to live in a time oriented to others, obliged, as Pierre Bourdieu (2000:237) so eloquently puts it, "to wait for everything to come from others." In Flammable this waiting takes an exaggerated form and, for two years now, we have been documenting all the behaviors and opinions that belie this exercise of power: neighbors' appointments with lawyers (who frequently come to the neighborhood in search of sick or potentially

sick clients on whose behalf they might sue one or more companies in the compound) are constantly deferred, the lead-screenings and other blood tests ("contamination exams" would be a better term) that the local state presumably coordinates routinely delayed, their hopes about relocation that state authorities seemingly organizes are falsely raised. Meanwhile, residents wait – for a new relocation plan, for a new lawyer, for a court ruling, for a new test. It is beyond the scope of this paper to offer a complete catalogue of "all the behaviors associated with the exercise of power over other people's time" (Bourdieu 2000:228) both on the side of the powerless and of the powerful. Before concluding, let us offer an ethnographic snapshot that encapsulates the main themes of the lived experience of contamination under scrutiny here: Flammable residents' presence in a toxic world is characterized by a long, impotent, and uncertain waiting.

Marta came to Villa Inflamable in 1995. She organizes a soup kitchen at her house (with funds provided by the local state and some of the compound companies). She has a daughter and three sons – one of them, Ezequiel, was tested during the PAE study and is lead-poisoned. What follows is an (edited) transcription of portions of a two-hour long conversation we had with her on March 2006.

PICTURE EIGHT: Locals leveling their plots with (probably poisoned) waste (Picture taken by Marcelo, Ninth Grade, Flammable School).

> ***Filling with toxic waste***
>
> This [referring to her patio] was a small lagoon. We filled it with soil that trucks removed from there [pointing to the front of her house] to make way for the street. It was all cement, stones, black stuff. We paid 5 pesos per truck, and they put all the contents right here.

Lead-poisoned son

Ezequiel is ashamed of going out with shorts because of all the pimples. He has small scars all over him. Thank God, her never had them on his face. I bought him long pants so that he can cover the pimples. He doesn't sleep at night. It itches all over his back, his arms, his legs. Manuel (second son) is now getting rashes too. I am now waiting for the lawyers. They are coming to do some studies, but I don't know what's going on because they haven't come yet. I call them and they don't come.

Waiting for the Lawyer(s)

Before this one, we have some other lawyers…Doctor Palacio and some others. They came, we signed [the power of attorney], we had meetings, they explained stuff to us, and then, all of a sudden, they disappeared. They were from the city. A neighbor brought them to the neighborhood. I think it was through some local politician. They never showed up again [in 2001]. We went to La Plata [the capital of the state of Buenos Aires] to have blood tests done. We then got together with a group of other mothers and we got another lawyer. His name was Doctor Isla. We had meetings at my house, we signed papers, they explained stuff to us. We came and went all over. They told us that we could get money from the companies. Isla disappeared, he never came back. One day, Doctor Russo came by. He came in November of last year [2005]. Another day, he disappeared. But he came back, this one did return. I trust him. He stopped calling us during the last six months… but he is very responsible. He had four families tested. But we don't know the results. Apparently, he called one neighbor and told him that the blood tests have to be done again. I don't know. It's been months since he last came. I'm going to call him […] <u>There is shit in the water, we have everything on our side [to win the lawsuit]</u>. The lawyer filed a lawsuit because we are unprotected here. The lawyer told me: 'Marta, get ready, because you are going to have a good reward. We are about to win the lawsuit.'

Relocation

We are going to be relocated, this year. Municipal officials say that by 2007 nobody should be living here. The owners of the land will pay us, they are going to give us a house. There are not going to be any more houses left here. This place is all going to be green space and (there will be) industrial plants. All the companies, with the exception of Petrobras, put the money down [so that we can be relocated]. All the residents of Flammable are going to be removed… but, where are we going to go? They can't kick us out. If they give me 30 thousand pesos, I'll move to Areco [in the province of Buenos Aires] with my cousin. It's pretty there […] But, if they eradicate me, I don't know where am I going to go. What shall I do? I don't have a place to go. I don't know, I don't know.

CONCLUSIONS AND TASKS AHEAD

Contemporary urban ethnography in the Americas has done a splendid job in describing and explaining the causes and experiential forms of the sufferings endured by dwellers in ghettos, inner-cities, *favelas*, *villas*, *comunas*, and other territories of urban relegation. Even in the midst of their distress (caused by everyday, structural, symbolic or political

violence [Bourgois 2001]) most of the protagonists of urban ethnography remain consistent and aware subjects – actors usually know something that we do not (after all, we rely on "informants" who, presumably, guide our way into the, for us, "unknown"). We rarely see ethnographic texts in which people hesitate, make mistakes, and/or are plagued by contradictions – subjects who know and don't know.

Uncertainty and ignorance have not been a dominant focus among ethnographers. And understandably so because, as Murray Last (1992: 393) writes, "it is hard enough to record what they do know."[7] This paper has zoomed in the "not-knowing" and the "doubting," in the complex, sometimes incongruous and other times perplexing ways in which Flammable residents make sense of their toxic surroundings. Besides the case of environmental suffering in Flammable then, this paper (and the larger project of which this is a small piece) seeks to contribute to a better understanding and explanation of the social production of confusion – its social reasons and effects. In a nutshell, we found that residents' presence in a toxic world is a confused and expectant existence.

How are we to understand and explain error, blindness, and confusion? How come, in the midst of a slow-motion toxic disaster, where children have record levels of lead in their blood-streams, where the air and water residents breathe and drink is highly contaminated, Flammable dwellers allow themselves to doubt about (or, worse, deny) the "hard facts" of industrial pollution? Classic and current scholarship (Erikson 1976; Das 1995; Vaughan 1990, 1998, 2004; Petryna 2002; Eden 2004) clearly shows that the sources of confusion and ignorance (about surrounding threats or risks) are not the individuals but the context. In Flammable this context is characterized by the heavy presence of pollutants and by a plethora of both practical and symbolic interventions.

Toxic contamination is "inherently uncertain" (Edelstein 2004): the body's past exposures, the dose-response relationship, synergistic effects, and etiological ambiguity all contribute to the problem of ambiguity in both toxicology and epidemiology (Brown, Kroll-Smith, and Gunter 2000). In Flammable, this intrinsic uncertainty is amplified by a labor of confusion performed, not necessarily intentionally, by a series of interconnected actors: state officials who mandate blood tests and then suspend them without notice and who routinely raise the issue of relocation and then (and as frequently) suspend it; compound firms who provide funds for the local health center, assert (through authoritative spokespersons) that the area is "unfit for human residence" and, with equal emphasis, that shanty-dwellers' own behaviors are responsible for their poisoning ("they smoke inside their homes, they don't wash their hands," as we were told by a Shell engineer); doctors at the local health center who deny the existence of contamination-related illnesses ("what you find here, you'll find in any other area where the poor live," we were repeatedly told) but who admit that "there's something strange here" and tell mothers of lead-poisoned children that, if their loved ones are to be cured, they have to "leave the neighborhood for good"; media reporters who randomly come into the neighborhood, focus on the most extreme aspects of life here, and then broadcast the news in the authoritative language of journalism (with the help of the occasional experts) emphasizing how improbable life is in this "inferno" (as the title of one such report reads); and lawyers who frequently come to the neighborhood in search of potential clients, raise the expectations of vulnerable residents who have "everything on their side"

[7] For exceptions see Clarke (1989); Das (1995); Vaughan (1990, 1998); and Petryna (2002)

because “there is shit in the water” and, encourage them to wait for a “good reward” (in many cases, dreamed in the thousands of dollars). A full account of these interventions through time and an examination of their (confusing) resonances among Flammable residents are beyond the scope of this paper. These interventions [what Veena Das (1995) would call appropriations and transformations] are crucial to understand the socio-political production of confusion and uncertainty. They are also critical if we want to explain the relations between habitat and habitus, between being exposed and being disposed. That is now the task ahead.

BIBLIOGRAPHY

Auyero, Javier. 1999. "'This is Like the Bronx, Isn't It?' Lived Experiences of Slum-dwellers in Argentina." *International Journal of Urban and Regional Research* 23(1): 45-69.

Auyero, Javier. 2001. *Poor People's Politics.* Durham, NC: Duke University Press.

Auyero, Javier and Debora Swistun. 2007 [Forthcoming]. Amidst Garbage and Poison. *Contexts*.

Berney, Barbara. 2000. "Round and Round It Goes. The Epidemiology of Childhood Lead Poisoning, 1950-1990." In *Illness and the Environment. A Reader in Contested Medicine*, edited by Steve Kroll-Smith, Phil Brown, and Valerie J. Gunter (New York: New York University Press) pp. 235-57.

Bourdieu, Pierre, 1977. *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.

Bourdieu, Pierre. 1998. *Practical Reason*. California: Stanford University Press.

Bourdieu, Pierre. 2000. *Pascalian Meditations*. California: Stanford University Press.

Bourdieu, Pierre and Loïc Waquant. 1992. *An Invitation to Reflexive Sociology*. Chicago: Chicago University Press.

Bourdieu, Pierre et al. 1999. *The Weight of the World. Social Suffering in Contemporary Society.* California: Stanford University Press.

Bourdieu, Pierre and Marie-Claire Bourdieu. 2004. "The Peasant and Photography." *Ethnography* 5(4):601-16.

Brown, Phil. 1991. "The Popular Epidemiology Approach to Toxic Waste Contamination." In Couch, Stephen Robert and J. Stephen Kroll-Smith. Editors. 1991. *Communities at Risk. Collective Responses to Technological Hazards.* New York: Peter Lang. Pp. 133-55

Brown, Phil and Edwin Mikkelsen. 1990. *No Safe Place. Toxic Waste, Leukemia, and Community Action*. Berkeley: University of California Press.

Brown, Phil, Steve Kroll-Smith, and Valerie J. Gunter. 2000. "Knowledge, Citizens, and Organizations. An Overview of Environments, Diseases, and Social Conflict." In *Illness and the Environment. A Reader in Contested Medicine*, edited by Steve Kroll-Smith, Phil Brown, and Valerie J. Gunter (New York: New York University Press) pp.9-25.

Brown, Phil and Judith Kirwan Kelley. 2000. "Physicians' Knowledge, Attitudes, and Practice Regarding Environmental Health Hazards." In *Illness and the Environment. A Reader in Contested Medicine*, edited by Steve Kroll-Smith, Phil Brown, and Valerie J. Gunter (New York: New York University Press) pp. 46-71

Bullard, Robert. 1994. *Dumping in Dixie. Race, Class, and Environmental Quality*. Boulder, CO: Westview Press.

Cable, Sherry and Edward Walsh. 1991. "The Emergence of Environmental Protest: Yellow Creek and TMI Compared." In Couch, Stephen Robert and J. Stephen Kroll-Smith. Editors. *Communities at Risk. Collective Responses to Technological Hazards.* New York: Peter Lang. Pp. 113-132.

Caplan, Pat. 2000. "Introduction: Risk Revisited" in Risk Revisited, Pat Caplan, Ed. London: Pluto Press. Pp. 1-28.

Checker, Melissa. 2005. *Polluted Promises. Environmental Racism and the Search for Justice in a Southern Town.* New York: New York University Press.

Clarke, Lee. 1989. *Acceptable Risk? Making Decisions in a Toxic Environment.* California: California University Press.

Couch, Stephen Robert and J. Stephen Kroll-Smith. Editors. 1991. *Communities at Risk. Collective Responses to Technological Hazards.* New York: Peter Lang.

Das, Veena. 1995. *Critical Events. An Anthropological Perspective in Contemporary India*. New York: Oxford University Press.

Defensoría del Pueblo de la Nación Argentina. 2003. *Informe Especial sobre la Cuenca Matanza-Riachuelo*. Defensor del Pueblo de la Nación, Argentina.

DiMaggio, Paul. 1997. "Culture and Cognition." *Annual Review of Sociology* 23:263-87.

DuPuis, Melanie (Ed.). 2004. *Smoke and Mirrors. The Politics and Culture of Air Pollution*. New York: New York University Press.

Davis, Devra. 2002. *When Smoke Ran Like Water. Tales of Environmental Deception and the Battle Against Pollution*. New York: Basic Books.

Defensoría del Pueblo de la Ciudad de Buenos Aires. 2006. "Resolución 1157/06." www.defensoria.org.ar, accessed April 26, 2006.

DelVecchio Good, Mary-Jo, Paul E. Brodwin, Byron Good, and Arthur Kleinman. 1991. *Pain as Human Experience: An Anthropological Perspective*. California: University of California Press.

Dorado, Carlos. 2006. “Informe sobre Dock Sud.” Buenos Aires: Unpublished Manuscript.

Edelstein, Michael. 2003. *Contaminated Communities.* Boulder, CO: Westview Press.

Eden, Lynn. 2004. *Whole World on Fire. Organizations, Knowledge & Nuclear Weapons Devastation*. Ithaca, NY: Cornell University Press.

Erikson, Kai. 1976. *Everything in its Path*. New York: Simon and Schuster.

Farmer, Paul. 2003. *Pathologies of Power. Health, Human Rigths, and the New War on the Poor*. California: University of California Press.

Farmer, Paul. 2004. “An Anthropology of Structural Violence.” *Current Anthropology* 45(3): 305-25.

González de la Rocha, Mercedes et al. 2004. “From the Marginality of the 1960s to the ‘New Poverty’ of Today: A LARR Research Forum.” *Latin American Research Review* 39(1):184-203.

Harper, Douglas. 1997. “Visualizing Structure: Reading Surfaces of Social Life.” *Qualitative Sociology* 20(1):57-77.

Harper, Douglas. 2002. “Talking about Pictures: A Case for Photo Elicitation,” *Visual Studies* 17(1):13-26.

Hoffman, Kelly and Miguel Angel Centeno. 2003. “The Lopsided Continent: Inequality in Latin America.” *Annual Review of Sociology* 29:363-90.

Kleinman, Arthur. 1988. *The Illness Narratives. Suffering, Healing and the Human Condition*. New York: Basic Books.

Kleinman, Arthur, Veena Das, and Margaret Lock. 1997. *Social Suffering*. California: California University Press.

Kroll-Smith, Stephen and Stephen Robert Couch. 1991. “Technological Hazards, Adaptation and Social Change.” In Couch, Stephen Robert and J. Stephen Kroll-Smith. Editors. *Communities at Risk. Collective Responses to Technological Hazards.* New York: Peter Lang. Pp. 293-320

Lanzetta, Máximo and Néstor Spósito. 2004. Proceso Apell Dock Sud. Unpublished Manuscript.

Last, Murray. 1992. “The Importance of Knowing about Not Knowing: Observations from Hausaland.” In Feierman, Steven and John M. Janzen (editors) *The Social Basis of Health and Healing in Africa*. Berkeley, CA: University of California Press. Pp. 393-406.

Levine, Adeline Gordon. 1982. *Love Canal: Science, Politics, and People*. Toronto: LexingtonBooks.

Lerner, Steve. 2005. *Diamond. A Struggle for Environmental Justice in Louisiana’s Chemical Corridor*. Cambridge: The MIT Press.

Markowitz, Gerald and David Rosner. 2002. Deceit and Denial. The Deadly Politics of Industrial Pollution. Berkeley, CA: University of California Press.

Mazur, Allan. 1991. “Putting Radon and Love Canal on the Public Agenda” In Couch, Stephen Robert and J. Stephen Kroll-Smith. Editors. *Communities at Risk. Collective Responses to Technological Hazards.* New York: Peter Lang. Pp. 183-203

McAdam, Doug. 1984. *Political Process and the Development of Black Insurgency 1930-1970.* Chicago: Chicago University Press.

Miller, Dale T. and Debora A. Prentice. 1994. “Collective Errors and Errors about the Collective.” *Person. Soc. Psychology Bulletin*. 20:541-550.

PAE *Plan de Acción Estratégico para la Gestión Ambiental Sustentable de un Area Urbano-Industrial a Escala Completa*. 2003. *Informe Final.* JMB Ingeniería Ambiental.

Pellow, David. 2002. *Garbage Wars. The Struggle for Environmental Justice in Chicago*. Cambridge, Mass: The MIT Press.

---. 2005. “Environmental Racism: Inequality in a Toxic World.” In *The Blackwell Companion to Social Inequalities,* edited by Mary Romero and Eric Margolis. Malden, MA: Blackwell.

Perrow, Charles. 1984. *Normal Accidents.* New York: Basic Books.

Petryna, Adriana. 2002. *Life Exposed. Biological Citizens after Chernobyl*. Princeton, NJ: Princeton University Press.

Phillimore, Peter, Suzanne Moffatt, Eve Hudson, and Dawn Downey. 2000. “Pollution, Politics, and Uncertainty. Environmental Epidemiology in North-East England.” In *Illness and the Environment. A Reader in Contested Medicine*, edited by Steve Kroll-Smith, Phil Brown, and Valerie J. Gunter (New York: New York University Press) pp.217-34.

Proctor, Robert. 1995. *Cancer Wars. How Politics Shapes What We Know and Don’t Know about Cancer.* New York: Basic Books.

Scheper-Hughes, Nancy. 1994. *Death Without Weeping.* California: California University Press.

Tilly, Charles. 1996. "Invisible Elbow." *Sociological Forum* 11/4:589-601.

Vaughan, Diane. 1990. "Autonomy, Interdependence, and Social Control: NASA and the Space Shuttle Challenger." Administrative Science Quarterly Vol. 35, No. 2: 225-257.

---. 1998. "Rational Choice, Situated Action, and the Social Control of Organizations." *Law & Society Review* 32 (1):23-61

---. 1999. "The Dark Side of Organizations: Mistake, Misconduct, and Disaster." *Annual Review of Sociology* 25:271-305.

---. 2004. "Theorizing Disaster. Analogy, historical ethnography, and the Challenger Accident." Ethnography Vol 5(3):315-47.

Wacquant, Loïc. 2003. **"**Ethnografeast: A Progress Report on the Practice and Promise of Ethnography." *Ethnography* 4:5-14.

---. 2004. "Comment on Farmer." *Current Anthropology* 45(3):322.

Warren, Christian. 2000. *Brush with Death. A Social History of Lead Poisoning.* Baltimore: Johns Hopkins University Press.

Widener, Patricia. 2000. "Lead Contamination in the 1990s and Beyond. A Follow-up." In *Illness and the Environment. A Reader in Contested Medicine*, edited by Steve Kroll-Smith, Phil Brown, and Valerie J. Gunter (New York: New York University Press) pp. 260-9.

Zonabend, Francoise. 1993. *The Nuclear Peninsula*. New York: Cambridge University Press.