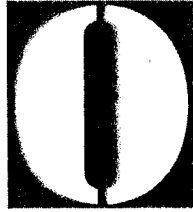


PROLOGUE

The Urban Inferno



On Wednesday morning, 12 July 1995, the *Chicago Sun-Times* reported that a heat wave was heading for the city. An article proclaiming "Heat Wave on the Way—And It Can Be a Killer" ran on page 3 of the news section instead of on the weather page. Forecasters were predicting that the temperature would reach the mid-nineties that afternoon and stay near one hundred degrees Fahrenheit for the next two days. The humidity and ozone levels also would be high, making the air feel tropical, as if Chicago were in Fiji or Guam. The heat index, which measures the temperature that a typical person would feel, could top 120 degrees.

On Thursday the temperature hit 106 degrees and the heat index climbed to 126. Brick houses and apartment buildings baked like ovens, and indoor thermometers in high-rises topped 120 degrees even when windows were open. Thousands of cars broke down in the streets. Several roads buckled. City workers watered bridges spanning the Chicago River to prevent them from locking when their plates expanded (fig. 1). Train rails detached from their moorings and commuters endured long delays.

In the newspapers and on television, meteorologists recommended that Chicago residents use air conditioners, drink plenty of water each day, and relax: "Stake out your turf at the nearest beach, pool, or air-conditioned store. Slow down. . . . Think cool thoughts." Appliance stores throughout the city sold out their air conditioners and home pools. "This is the kind of weather we pray for," remarked one spokesperson for a regional supplier. Nearly one hundred thousand people crowded into a small downtown beach (fig. 2). Others took boat trips onto Lake Michigan, only to return when passengers became dehydrated and ill. Hundreds of children riding in school buses developed heat exhaustion when they got stuck in mid-day traffic. Adults carried

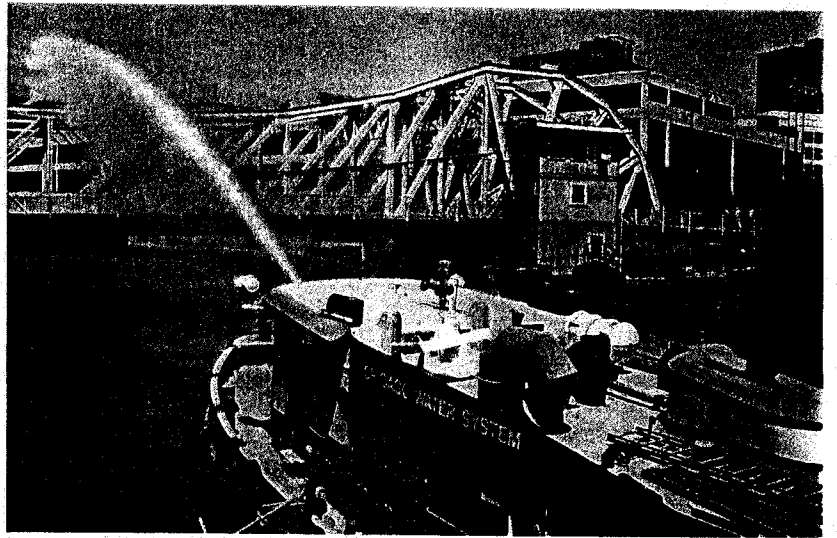


Figure 1. City workers hose down the Kinzie Street Bridge to prevent it from locking. Source: *Chicago Sun-Times*; photographer: John White. Reprinted with special permission from the Chicago Sun-Times, Inc. © 2002.

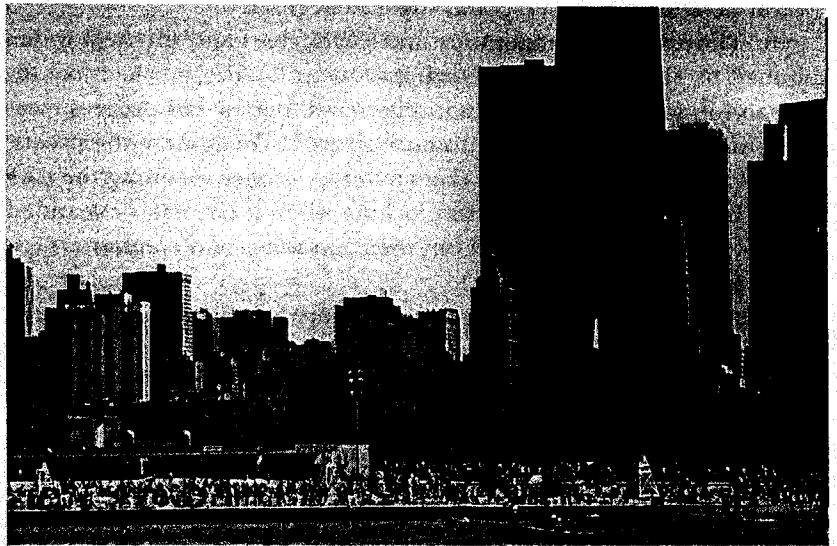


Figure 2. Tens of thousands swarm to the North Avenue Beach, seeking relief from the heat. Source: *Chicago Sun-Times*; photographer: Andre Chung. Reprinted with special permission from the Chicago Sun-Times, Inc. © 2002.



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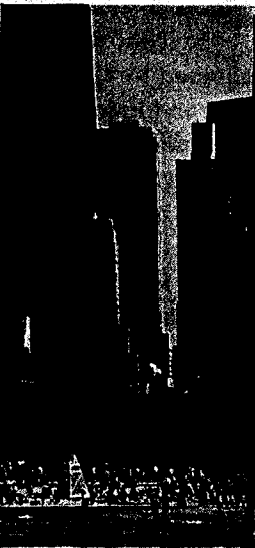


Figure 3. Makeshift public health: Fire Department personnel hose down children in a city park. Source: ABC7. Courtesy of WLS-TV.

many of the children out of the vehicles, firefighters hosed them down, and paramedics provided emergency assistance (figs. 3, 4). Those with the worst illnesses were hospitalized.

The city soon experienced scattered power outages as a result of unprecedented electrical use. As lights, air conditioners, radios, and television sets were rendered useless, news, weather updates, and health advice were hard to get. Elevators stopped, making it necessary for members of the Police and Fire Departments to carry elderly high-rise residents down from the stifling heat of their apartments. Many people with no power or simply no air-conditioning packed bags and stayed with family or friends. On Friday three power transformers failed at the Northwest Substation of Commonwealth Edison, the city's primary electric delivery services company, causing forty-nine thousand customers to lose power—some for as long as two days.

In neighborhoods with few air-conditioned public spaces, young residents opened fire hydrants and showered themselves in the spray to keep cool. At one point more than three thousand hydrants spouted freely, contributing to an expenditure of almost two billion gallons of water, double Chicago's consumption on a typical summer day. Water pressure



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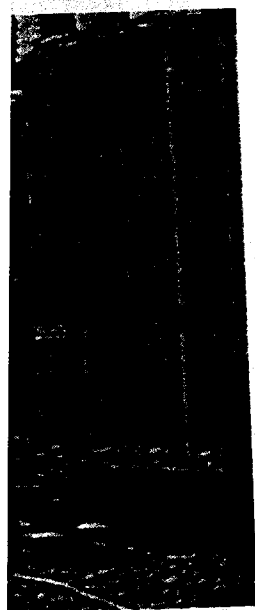
Figure 6. "Water Wars": City workers attempt to seal one of the three thousand hydrants illegally opened during the heat wave. Source: ABC7. Courtesy of WLS-TV.

fell. Neighborhoods where several hydrants were open lost all pressure for hours; malfunctioning pumps left buildings without water for days. Police announced that anyone found tampering with hydrants would be arrested and fined, and the city dispatched one hundred field crews to seal these emergency water sources (fig. 6). In some places people saw the crews coming and threw bricks and rocks to keep them away. Some shot at the trucks, and four workers received minor injuries.

On Friday, 14 July, the heat index exceeded one hundred degrees for the third consecutive day, and temperatures remained high at night. Because the body's defenses can take only about forty-eight hours of uninterrupted exposure to such heat before they break down, city residents were becoming ill. Many more people than usual grew sick enough to be hospitalized: between 13 and 19 July ambulance services received several thousand transport requests above the norm. In thirty-nine hundred cases, no vehicles were available, so the city sent fire trucks to handle the calls. Although the average response time for Chicago's emergency health services had been less than seven minutes that year, now the paramedics were often delayed. Some residents who phoned for ambulances were told that that they would have to wait



tion. Source: ABC7.



generators to prevent

because the vehicles were all booked. Fifty-five emergency callers were left unattended for thirty minutes or longer; some endured a two-hour wait. In a few cases of heat stress the victims waited so long for medical attention that they died.

Hospitals and other health-care providers also had trouble meeting the demand for their services. The number of people admitted to emergency rooms and inpatient units began to rise on Wednesday and continued to increase through the weekend. Some emergency rooms ran out of beds and their staffs could not handle more work. More than twenty hospitals, most on the South and Southeast Sides of the city, went on bypass status, closing the doors of their emergency facilities and refusing to accept new admissions. There was no reliable way for citizens or paramedics to learn which emergency rooms were still open, so ambulances and private cars continued to arrive at the hospital ports. Often their passengers required urgent treatment, but facilities on bypass could not tell drivers where such care was available. Some hospitals reported that patients had traveled more than ten miles before finding a facility that could treat them. Medical workers grew anxious. What would happen to the diverted cases? Where could they go?

Many heat victims were not discovered or taken to hospitals until it was too late for doctors to help. On Friday, for example, Margaret Ortiz, the owner of a small day-care service that she operated from her home, took a group of ten small children to an air-conditioned movie theater in her Ford Bronco. After the movie ended, Ortiz took the children back to the center and brought them indoors. Everyone was exhausted and the toddlers napped. An hour and a half passed before Ortiz went to her Bronco on her way to picking up more children. When she reached her vehicle, she discovered that two boys had been left inside. Ortiz carried the children indoors and called 911. The boys were already dead, though, and when the paramedics arrived, they determined that the body temperatures were 107 and 108 degrees. Chicago newspapers and television news programs featured stories of the children's deaths prominently in their heat wave coverage. The Cook County Medical Examiner scheduled autopsies on the children for the next morning, but there was little question about the cause of death.

As the day wore on, more Chicagoans succumbed to the heat. By comparison, on Wednesday, 12 July, and Thursday 13 July, 74 and 82 people, respectively, lost their lives, figures that are only slightly above the July norm of about 72 deaths per day. When the effects of the continuous heat began to accumulate, however, the death toll increased substantially (figs. 7, 8). On Friday, 14 July, 188 Chicago resi-



FIG. 7. EXCESS DEATHS IN CHICAGO, 1993

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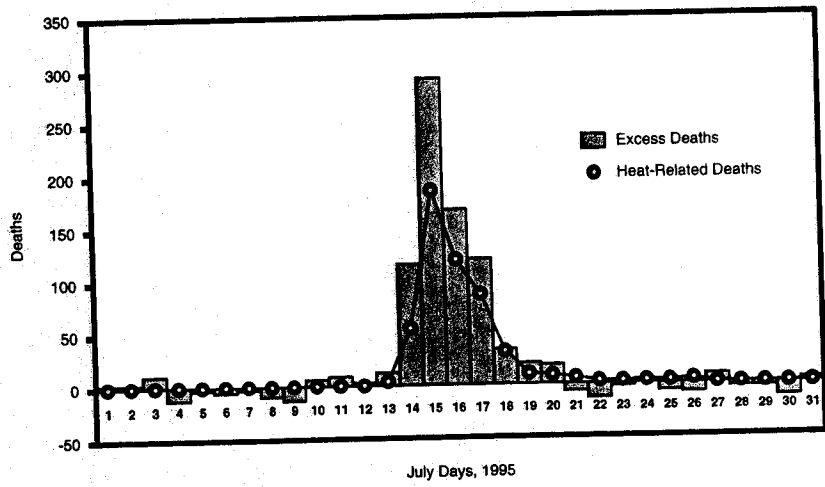


Figure 7. Excess and heat-related mortality in Chicago, July 1995. Source: City of Chicago, Department of Public Health.



Figure 8. Newspaper headlines track the death toll.

dents perished. On Saturday the reported mortality was 365, five times the typical rate. Two hundred forty-one people died on Sunday, 193 on Monday, and 106 on Tuesday. On Wednesday, 19 July, citywide deaths dropped to 92, then to 91 on Thursday. City agencies, already scrambling to manage the crisis, searched for a place that could hold the dead. According to emergency workers, the task was equivalent to handling one fatal jetliner crash per day for three consecutive days.

THE CITY OF DEATH

Police officers took hundreds of the dead bodies to the Cook County Medical Examiners Office, a modern concrete building across from the county hospital and a few miles west of the Loop. The discreetly housed morgue there typically receives about seventeen bodies per day, but the staff can usually process more. Now they were receiving more corpses than they could handle, and the clinical staff of fourteen pathologists worked marathon shifts to keep up. The Chief Medical Examiner recruited forensic dental workers and students from a nearby school of mortuary science to assist in identifying and examining the cadavers. Moreover, he asked police officers to cart bodies from the parking lot to the office and city workers to clear space for the pathologists to work. But even this amount of help was not enough. Consequently, Cook County corrections officials offered people on probation two days of credit for each day that they worked at the morgue; some of them accepted this proposal. Nonetheless, a long line of police vehicles carrying dead bodies formed outside the Medical Examiners Office building, with some waiting as long as three hours for an available worker to receive the body. "It's like an assembly line in there," one officer said. In many cases police delivered decomposed bodies to the morgue several days after the date of death because no one had noticed that the person had not been seen in a while. It was impossible to know how many more victims remained in their homes, undiscovered.

By Saturday the number of bodies coming in to the morgue exceeded its 222-bay holding capacity by hundreds. Incoming bodies were scattered around the office, and many of the examined corpses remained unclaimed because there were no next of kin. The owner of a local meat-packing firm volunteered to bring his fleet of refrigerated trucks to the morgue for storing the excess bodies. The first group of red and yellow vehicles, each about forty-eight feet long, arrived on Friday, but they filled up quickly and dozens of bodies remained. The crew brought more trucks through the weekend, and ultimately there were nine altogether. Parked in the morgue's lot, the trucks were sur-



Figure 9. At the Cook County Medical Examiners Office, bodies were stored when the morgue was full. Photo by the *Chicago Sun-Times*; photograph from the Chicago

rounded by police vehicles and private cars. Images of the scene were shown on television papers around the world.

In the end, the city of Chicago residents died of heatstroke, electrolytic imbalance, and permanent damage, such as organ failures. Those who were treated in emergency rooms were treated in emergency rooms.

After the heat had subsided, the mortality pattern was determined. People who had not been determined that they had underestimated the danger to Chicago residents died.

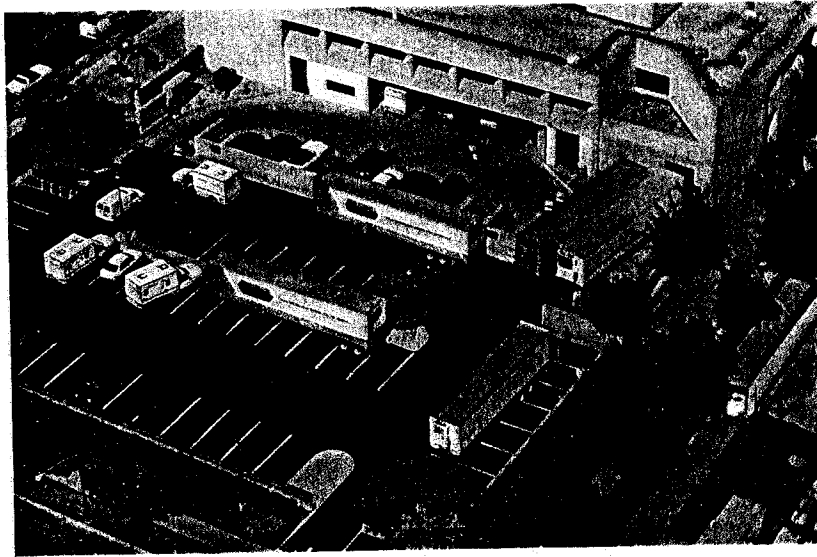


Figure 9. At the Cook County Medical Examiners Office, refrigerated trucks stored bodies when the bays at the morgue filled to capacity. Source: *Chicago Sun-Times*; photographer: Robert Davis. Reprinted with special permission from the Chicago Sun-Times, Inc. © 2002.

rounded by police wagons, radio and television vans, hearses, and private cars. Images of the scene appeared on television screens and newspapers around the world (fig. 9).

In the end, the city reported that between 14 and 20 July, 485 Chicago residents died directly from heat-related causes, bringing the total mortalities for the month to 521.¹ (These numbers were based on medical autopsies and police examinations that officially established causes of death for each case.) More than one thousand people in excess of the July norm were admitted to inpatient units in local hospitals because of heatstroke, dehydration, heat exhaustion, renal failure, and electrolytic imbalances. Those who developed heatstroke suffered permanent damage, such as loss of independent function and multisystem organ failures. Thousands of other stricken by heat-related illnesses were treated in emergency rooms.

After the heat had subsided, epidemiologists compiled statistics on the mortality patterns during July, taking into account the deaths of people who had not been taken to the Medical Examiners Office. They determined that the death count based solely on the medical autopsies had underestimated the damage. Between 14 and 20 July, 739 more Chicago residents died than in a typical week for that month. In fact,

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public health scholars have established that the proportional death toll from the heat wave in Chicago has no equal in the record of U.S. heat disasters.

Comparisons with other historic catastrophes help to establish the magnitude of the trauma. More than twice as many people died in the heat wave than in the Great Chicago Fire of 1871, when approximately three hundred people perished. More recent U.S. environmental disasters, such as California's Northridge earthquake of 1994 and Florida's Hurricane Andrew in 1992, caused the deaths of one-tenth and one-twentieth the heat wave total, respectively. The Oklahoma City bombing in April 1995, which killed 168, and the crash of TWA Flight 800 in 1996, which killed 230, were several times less fatal. Reporters, public officials, and scientific authorities have developed compelling and straightforward accounts of the reasons that so many people died in these other environmental or technological disasters. In the Chicago heat tragedy, however, the causes of the mortality are more elusive and complex.

In recent years, a number of meteorological studies and journalistic reports have examined the reasons for the historic mortality figures. According to the National Oceanic and Atmospheric Administration, "The principal cause of the July 1995 heat wave was a slow-moving, hot, and humid air mass produced by the chance occurrence at the same time of an unusually strong upper-level ridge of high pressure and unusually moist ground conditions."² The geographer Laurence Kalkstein provided a deeper analysis of the weather. Using a new air mass-based synoptic procedure to pinpoint the meteorological conditions that impose serious health hazards, Kalkstein found that a moist tropical system, with high humidity, low winds, and high minimum temperatures, created an unusually dangerous July climate.

But does the severe weather fully account for Chicago's human catastrophe? According to the meteorologists and epidemiologists who have studied the event, the answer is decidedly no. In an article published by the *American Journal of Public Health*, a group of scholars headed by the former epidemiology director of the Chicago Department of Public Health reported that it had "examined some weather variables but failed to detect relationships between the weather and mortality that would explain what happened in July 1995 in Chicago." Even the most sophisticated meteorological analyses "still leave a fair amount of variance in the mortality measure unexplained."³ The weather, in other words, accounts for only part of the human devastation that arose from the Chicago heat wave. The disaster also has a social etiology, which

no meteorologist can uncover and explore.

This book examines the heat wave in Chicago from the proximate causes to the social conditions that contribute to the idea of a disaster. It is because of the monopolistic and death-dealing way we see the world that "It quite often happens because one current use of diagnosis is to find out what happened. What I mean is its story is that it was a social condition that people, in their homes of course, were concerned with. The research helps to show that the reflection is responsible for well as to forget. I mean and finally take

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no meteorological study, medical autopsy, or epidemiological report can uncover. The human dimensions of the catastrophe remain unexplored.

This book is organized around a social autopsy of the 1995 Chicago heat wave. Just as the medical autopsy opens the body to determine the proximate physiological causes of mortality, this inquiry aims to examine the social organs of the city and identify the conditions that contributed to the deaths of so many Chicago residents that July. If the idea of conducting a social autopsy sounds peculiar, this is largely because modern political and medical institutions have attained monopolistic roles in officially explaining, defining, and classifying life and death, in establishing the terms and categories that structure the way we see and do not see the world. As Gaston Bachelard has written, "It quite often happens that a phenomenon is insignificant only because one fails to take it into account."⁴ The missing dimension in our current understanding of the heat wave stems precisely from this kind of diagnostic failure.

What happened in Chicago was more than a natural disaster, and its story is more than a catalogue of urban horrors. The 1995 heat wave was a social drama that played out and made visible a series of conditions that are always present but difficult to perceive. Investigating the people, places, and institutions most affected by the heat wave—the homes of the decedents, the neighborhoods and buildings where death was concentrated or prevented, the city agencies that forged an emergency response system, the Medical Examiners Office and scientific research centers that searched for causes of death, and the newsrooms where reporters and editors symbolically reconstructed the event—helps to reveal the social order of a city in crisis. This study establishes that the heat wave deaths represent what Paul Farmer calls "biological reflections of social fault lines"⁵ for which we, and not nature, are responsible. We have collectively created the conditions that made it possible for so many Chicago residents to die in the summer of 1995, as well as the conditions that make these deaths so easy to overlook and forget. We can collectively unmake them, too, but only once we recognize and scrutinize the cracks in our social foundations that we customarily take for granted and put out of sight.

I first learned about the outbreak of deaths in Chicago from an international newspaper I was reading during the week of the heat wave. I was twenty-four years old at the time, living in Europe and preparing to enter a graduate program in sociology at Berkeley the next month.

It had been uncomfortably hot in Europe, too, that summer, with temperatures in the high nineties and low hundreds from Paris to Madrid. But I had heard nothing about heat wave deaths there. The headline caught my eye not only because of the contrast between Europe and the United States; more important, I was one of Chicago's native sons, one of the many who had grown up navigating the physical and moral geography of the famously divided city, tiptoeing along or across the borders which separated regions and the groups that, in University of Chicago sociologist Robert Park's famous words, "touch but do not interpenetrate."⁶ Chicago was, and still is, my home. The story of its heat epidemic captivated me, suddenly bringing into focus my blurry morning survey of the world's events. I wanted to learn what happened, but the article, rich with fine journalistic detail of scandal, death, and political and scientific debate, failed to offer the clues I needed. The events in Chicago, I guessed, were even more intriguing than the account suggested.

It was hardly the first time I had been puzzled by Chicago. Growing up in the center of the city, I had always been fascinated by the stark and storied contrast between its opulent Gold Coast and lakefront high-rises and its ghettos and slums; by the legends of colorful political leaders and insider deals that, to my child's eyes, made the city seem like a sprawling kingdom divided into small fiefdoms and governed by fanciful rulers whose personalities and connections carried more weight than the scales of justice or the balance of reason; by the mysterious underground roads, abandoned railways, and empty factories that haunted the city; by the rushing crowds on Michigan Avenue and the solitary men and women who sat nearby and watched them pass. When I decided to pursue a doctorate in urban sociology, it was, in part, based on my hope that my studies in Berkeley would help me make sense of what I had experienced in Chicago.

When I reached northern California in August of 1995, few people had thought about or even remembered what had happened in the Midwest just a few weeks before. The booming region, fantastically wealthy and economically confident, had little time for such a story. It was easy to dismiss the West Coast reaction as a mark of the vast cultural and physical distance between California and Chicago, a sign that, though I was closer to home than I had been in Europe, I was once again living in another country. But a few weeks later I went to Chicago and discovered that many of my oldest friends and relatives responded to queries about the catastrophe with analogous forms of detachment and disavowal. Paradoxically, people who had lived through the heat

wave had both absorbed out its significance and rendered it unintelligible, parently having trouble elusive, beyond words.

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What made the question the Chicagoans I spoke with scene at the coroner's office of dead bodies and dozer city had put on display. I had in which the discovery of whether a reputed massacre ally taken place. Yet in Chicago was at work: rather than call attention to and examine their status. The dead bodies see what had happened to

My trip home initially left and the processes through an urgent need to conduct concept of such an undertaking—did not exist. I began to ethnographic fieldwork, interviewing, and statistical analysis the nature, culture, and politics the summer of 1995. Soon scientific methods and theories about the heat wave that others ated the research for what report before you recounts

wave had both absorbed the magnitude of the disaster and blocked out its significance and implications. Something about the event had rendered it unintelligible or inexplicable; people in the city were apparently having trouble engaging it; the human side of the disaster was elusive, beyond words.

Everyone, of course, remembered the heavy air and the interminable heat, and several people I knew gave elaborate accounts of what they did when their power was out for hours or days. Yet I was confused by the frequent references my friends made to the possibility that the heat wave deaths were not, to use the phrase that recurred in their accounts, "really real"—in other words, as several political officials suggested, that the massive mortality figures from the week had somehow been fabricated, or that the deaths were simply not related to the heat. How could such ideas have grown so popular?

What made the question all the more intriguing was that many of the Chicagoans I spoke with also had strong, vivid memories of the scene at the coroner's office, of the incredible spectacle of hundreds of dead bodies and dozens of workers that every news outlet in the city had put on display. I knew of several human rights investigations in which the discovery of a mass grave had settled questions about whether a reputed massacre or a history of violent repression had actually taken place. Yet in Chicago, it seemed, the very opposite process was at work: rather than clarifying the conditions or causes of death, attention to and examination of the victims had somehow obfuscated their status. The dead bodies were so visible that almost no one could see what had happened to them.

My trip home initially left me even more puzzled by the heat wave and the processes through which we have come to know it. There was an urgent need to conduct what I imagined as a social autopsy, yet the concept of such an undertaking—let alone a technique for performing it—did not exist. I began to ask how the tools of sociological inquiry—ethnographic fieldwork, in-depth interviewing, archival research, mapping, and statistical analysis—could help to build an account of how the nature, culture, and politics of the city crystallized in Chicago in the summer of 1995. Soon thereafter I became convinced that social scientific methods and theories could advance or answer questions about the heat wave that other investigations had not addressed. I initiated the research for what became a five-year examination, and the report before you recounts what I found.