

## Further Reading on Urban Destruction and Recovery

Gaurav Srivastava

*The Resilient City: How Modern Cities Recover From Disaster* (Oxford University Press, 2005)--the book version of MIT's Resilient City project--contains an appendix with a brief annotated bibliography on urban resilience. What follows are some further suggestions for readings in three areas: Urban Fires, Urban Riots, and Urban Warfare.

### Urban Fires

The Conflagration was the mythical monster that devoured the timber-constructed cities of the pre-modern world – the vicious destroyer of their accumulated cultural and economic wealth.<sup>1</sup> Cities all over the world confronted the monster at some point in their histories. However, the literature suggests that cities rarely succumbed permanently to the fires that consumed them. They usually sprang back with renewed economic and political strength – a strength that often drew from a narrative that glorified the ennobling experience of being tested by fire.<sup>2</sup> The fire advantageously served these unfortunate cities as catalyst for urban resilience. Studies of city fires suggest that most towns and cities experienced major fires over the course of many centuries. Rome burned famously under the indifferent gaze of Nero in 64 A.D.<sup>3</sup> It was looted and burnt again in 410 A.D. by the Goths, and in 455 A.D. by the Vandals. Pre-modern London, in addition to the Great Fire of 1666, suffered from six other substantial conflagrations; according to one account at least 3,000 people perished in the fire of 1212.<sup>4</sup> Between 1603 and 1868,

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<sup>1</sup> See Sven Lilja for the unimpressive likelihood of experiencing a city fire in one's lifetime (focusing on pre-19<sup>th</sup> century Swedish towns) in "Wooden Towns on Fire. Fire Destruction and Human Construction of Swedish towns prior to 1800" in *Destruction and Reconstruction of Towns : Destruction by Earthquakes, Fire and Water, Vol. 1*, ed. Martin Körner (Bern, Stuttgart and Wien : Verlag Paul Haupt, 1999).

<sup>2</sup> Carl Smith, "Faith and Doubt: The Imaginative Dimensions of the Great Chicago Fire" in *American Disaster*, ed. Steven Biel (New York and London: New York University Press, 2001), p.142. Fires in American cities gave rise to a new city professional, the booster and a new genre of writing, "boosterature". Both deftly cultivated the city narrative, often loading it with classical Christian religio-spiritual imagery.

<sup>3</sup> Rodolfo Lanciani, *The Destruction of Ancient Rome* (New York: Arno Press, 1980 (first published 1901)), pp. 17-18. Though it has never been established that Nero has always been blamed for this fire, though credible evidence is not available for this. The fire burned for 6 days, and then for another 3 days. 2/3<sup>rd</sup> of the city was destroyed.

<sup>4</sup> Derek Keene, "Fire in London : Destruction and Reconstruction, A.D. 982 – 1676" in *Destruction and Reconstruction of Towns : Destruction by Earthquakes, Fire and Water, Vol. 1*, ed. Martin Körner (Bern, Stuttgart and Wien : Verlag Paul Haupt, 1999), pp. 193-194.

significant parts of Tokyo (Edo) burned down ten times, including one fire in 1657 that destroyed three-quarters of the palace and killed more than 100,000 people.<sup>5</sup> The timber-constructed young cities of the United States were infamous tinderboxes of the nineteenth century and early 20<sup>th</sup> century. New York, Chicago, Boston, Jacksonville, Baltimore, Seattle, and San Francisco, each lost a significant portion of themselves to fire.<sup>6</sup> However, threat from fires reduced significantly in the 20<sup>th</sup> century with the introduction of fire-resistant building materials, and the installation of sophisticated fire-fighting institutions and equipment.

Fires, like other system-halting calamities, engendered cultural narratives that mirrored contemporary social order and political dynamics. Razed cities, regardless of their location, exhibited common characteristics in their effort to rise out of the ashes. Notions of divine retribution characterize many early narratives about fires. This served as a fatalistic first recourse to explain and find reason for the city's fiery misfortune. Theological explanations abounded for natural disasters in pre-modern Europe. As Martin Körner puts it, "Belief in the omnipresence of God in people's lives and in God's punishment of the town, the cesspool of vice, predominated. Town fires offered an opportunity to recall Sodom and Gomorrah; by analogy, floods called for reference to the Flood; earthquakes were interpreted eschatologically as heralding the Last Judgment." Such disasters meant that disobedient humans had broken their covenant with God, but also served as an opportunity for repentance.<sup>7</sup>

The reconstruction that followed the Great Fire of London in 1666 serves as a good example of the politico-economic pulls that cities experience as they try to reconstruct. The Great Fire, emblematic of the city fire in the Western mind, caused

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<sup>5</sup> Kaoru Ugawa, "The Great Fire of Edo (Tokyo) in 1657," in *Destruction and Reconstruction of Towns : Destruction by Earthquakes, Fire and Water, Vol. 1*, ed. Martin Körner (Bern, Stuttgart and Wien : Verlag Paul Haupt, 1999), pp. 217, 225.

<sup>6</sup> The 1871 fire at Chicago and the 1906 earthquake-and-fire at San Francisco dominate the published literature on American fires. See, for example, Ross Miller, *American Apocalypse: The Great Fire and the Myth of Chicago* (Chicago: University of Chicago Press, 1990); Carl Smith, *Urban Disorder and the Shape of Belief: The Great Chicago Fire, the Haymarket Bomb, and the Model Town of Pullman* (Chicago: University of Chicago Press, 1995); Karen Sawislak, *Smoldering City: Chicagoans and the Great Fire, 1871-1874* (Chicago: University of Chicago Press, 1995); Dan Kurzman, *Disaster!: The Great San Francisco Earthquake and Fire of 1906* (New York: HarperCollins, 2001); Ted Steinberg, "Smoke and Mirrors: The San Francisco Earthquake and Seismic Denial," in Biel, ed., *American Disasters*, pp. 103-126. . For other cities see Robert Taylor, *The Great Boston Fire, 1872; a disaster with a villain: old-style politics* (Boston: Boston Sunday Globe, 1972); James B. Crooks, *Jacksonville after the Fire, 1901-1919* (Jacksonville: University of North Florida Press, 1991); for obscure American fires see Stephen J Pyne, *Fire in America : a cultural history of wildland and rural fire* (Seattle, Washington: University of Washington Press, 1997). See also Pyne's "Cycle of Fire" suite of books for a comprehensive overview of the cultural significance of fire.

<sup>7</sup> Martin Körner, *Destruction and Reconstruction of Towns : Destruction by Earthquakes, Fire and Water, Vol. 1*, ed. Martin Körner (Bern, Stuttgart and Wien : Verlag Paul Haupt, 1999), p. 99.

London significant losses: 13,200 houses, 87 parish churches, 52 company halls and 10 major public buildings were destroyed. The fire consumed a third of the entire built-up area of the city.<sup>8</sup> To some, the Great Fire of London was a lost opportunity to rebuild a grand and formally ordered London. The reconstruction plan that was implemented reflected the unique economic, institutional and political setup prevalent in London. The city was on an economic upswing but public funds were in short supply, hence the grander of the reconstruction plans could not be implemented. The King was the prime instigator of reconstruction, yet he was in a “delicate, if not weak political position.”<sup>9</sup>

Often more so than the reconstruction, the process of fire fighting itself mirrored urban political struggles. In the Great Fire of October 1728, Copenhagen fell victim to the struggle between competing military and civilian leaders of the city. The military disregarded the request for soldiers to assist in fighting the fire, choosing instead to prepare for trouble on the streets. It also disallowed firemen from drawing water from the city moats. Copenhagen burned as the political elites played urban tug-of-war, losing its city hall, its cathedral, the university complex and its library, hospitals and 1,670 homes.<sup>10</sup> Fires are often powerful proxies for weak but ambitious central governments. Government leaders in medieval Scandinavia viewed destructive fires as opportunities for physical change--to re-image cities in the ordered and formal manner of the renaissance and baroque plans prevalent elsewhere in Europe.<sup>11</sup> Hitherto, the state had lacked the authority to interfere, but the fires fortuitously gave leaders license to pursue their grand plans. Uniformly, these plans made the reconstructed town centers more attractive and highly valuable, thereby contributing to further economic segregation. The case of Kalmar, a coastal city in Sweden exemplifies an extreme case of urban resilience.<sup>12</sup> In 1647 fire consumed the entire city. It was rebuilt on an island just off its shore, predictably in the fashionable and formal manner of a grand continental city. Elsewhere, of course, some cities have famously transformed themselves without invoking the pretense of fire. The French state, through its agent, Baron Haussmann, served as both the destructive fire that Paris never experienced and its grand reconstructor.

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<sup>8</sup> Derek Keene, *op. cit.*, p. 192. See Neil Hanson, *The Great Fire of London : in that apocalyptic year, 1666* (Hoboken, NJ: John Wiley & Sons, 2002) for a fictional reconstruction of the fire.

<sup>9</sup> *Ibid.*, p.200. The King rebuilt the Custom House with his own money, and granted a seven-year holiday from the Hearth tax.

<sup>10</sup> Helge Gamrath, “The great fire of Copenhagen in 1728” in *Destruction and Reconstruction of Towns : Destruction by Earthquakes, Fire and Water, Vol. 1*, ed. Martin Körner (Bern, Stuttgart and Wien : Verlag Paul Haupt, 1999), pp. 296-297.

<sup>11</sup> Lilja, *op. cit.*, p. 271.

<sup>12</sup> *Ibid.*, pp. 265-267.

In April 1906, San Francisco witnessed a curious struggle of another kind when an early morning earthquake triggered a fierce fire (caused by severed gas lines and electrical mains). Firemen watched helplessly as 4 square miles of the city burned for 3 days.<sup>13</sup> The city emerged from the double assault unsure how to explain its destruction. Apportioning blame and directing reconstruction both depended greatly on whether the city's downfall stemmed, fundamentally, from preventable flames or from untamable earthly rattles. The political and business elite insisted on terming the calamity a mere 'fire' (albeit one that may have killed 3,000 people).<sup>14</sup> To capitalists schooled in the dominant narrative of progress, a fire ranked as a safer disaster than an earthquake, since it could be avoided by human intervention. The calming assurance of local boosters comforted other entrepreneurs whose mobile capital the city desperately sought. Having chosen fire over earthquake, the tragedy could be elegantly dramatized as a welcome incidence of creative destruction, necessary to spur the flow of capital and enterprise to a violated city.<sup>15</sup>

Chicago's Great Fire of 1871 exemplifies the chilling strength of popular mythmaking to assert pride-of-place in the annals of American pyro-history. On October 8, 1871, the same day that 300 people died in the fire that consumed Chicago, a second more deadly fire has been all but ignored: Peshtigo, a small lumber town in Wisconsin burned to the ground, in a forest fire resulting in 1500 deaths.<sup>16</sup> Yet Peshtigo, Chicago's unfortunate and obscure twin, finds no place in contemporary cultural memory. Notwithstanding its far greater loss of life, this small-town event failed to find a place in the national folklore. In his book on the Great Fire, literary historian Ross Miller asks why Chicago was so successful in launching and sustaining its "self-conscious legendizing." For Miller, Chicago's promoters succeeded because they managed to insinuate the city into a "larger narrative, consciously exploiting its own tragedy as an

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<sup>13</sup> ALA Himmelwright, *The San Francisco Earthquake and Fire : A brief history of the disaster* (New York: The Roebing Construction Company, 1906). 4.11 square miles were burned, an area greater than the combined areas of the fires in Baltimore, Chicago and Boston. 28,000 buildings were destroyed. Broken water mains rendered the fire-fighting force helpless spectators, and to add further misfortune, the Fire Chief was injured within a building shaken by the earthquake.

<sup>14</sup> Ted Steinberg, "The San Francisco Earthquake and Seismic Denial" in *American Disaster*, ed. Steven Biel (New York and London: New York University Press, 2001), pp.105-107.

<sup>15</sup> Kevin Rozario, "What comes down must go up : Why disasters have been good for American capitalism" in *American Disaster*, ed. Steven Biel (New York and London: New York University Press, 2001). Rozario argues that disasters "transform space in ways that promote economic expansion and present (some) investors and businesses with opportunities for the accumulation of capital".

<sup>16</sup> Stephen J Pyne, *Fire in America : a cultural history of wildland and rural fire* (Seattle and Washington: University of Washington Press, 1997), p.206. To be fair, Chicago reputation was several-fold more formidable than Peshtigo's. It had witnessed spectacular growth from 1837 (year of incorporation) - its population of 5,000 grew to 300,000 in 1870 (Sawislak, 1995).

archetype of the modern struggle against adversity.”<sup>17</sup> City boosters resorted to and perfected the imagery required to project Chicago in this moment of crisis. Most memorably, they depicted the city with powerful metaphors--helpless violated beautiful maiden, innocent young girl, stricken sister city—drawing powerfully on classical and Christian vocabularies.<sup>18</sup>

Karen Sawislak looks at the fire and its aftermath from the perspective of Chicago’s non-elites. Expectedly, their stories prove incongruously different from the popular narrative. In the absence of easily available written accounts of the Great fire by working people,<sup>19</sup> the cultural history of the fire is the oracular product of the rhetoric that flowed from the elite. The dominant story in essence laid the “blame for conflagration and chaos at the feet of a person that the Chicago elite would readily recognize as a member of the dangerous classes” – Irish Mrs. O’Leary and her footloose cow. They became an easy target for anti-Irish, anti-working class and anti-woman invective.<sup>20</sup>

In matters more technical, city fires directly contributed to establishing urban norms of physical, social, and economic order. They institutionalized the authority of city officials in urban crises, formalized professional fire-fighting departments within cities, refined the workings of the insurance industry, and prompted building bye-laws that regulated fire-prone wooden construction.<sup>21</sup> In Europe, regulations intended to reduce the possibility of fire and limit its spread date back at least to the fifteenth century. The fire engine was imported to London from Germany in the 1620s. It was a mobile device that pumped water through a spout, gaining large popularity by the early 18<sup>th</sup> century.<sup>22</sup> American cities sacrificed their volunteer fire departments in the 19<sup>th</sup> century for the protection of professional fire fighters.<sup>23</sup>

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<sup>17</sup> Ross Miller, *American Apocalypse : The Great Fire and the Myth of Chicago* (Chicago and London: University of Chicago Press, 1990). pp. 2-3.

<sup>18</sup> Carl Smith, “Faith and Doubt: The Imaginative Dimensions of the Great Chicago Fire” in *American Disaster*, ed. Steven Biel (New York and London: New York University Press, 2001), pp.131-160.

<sup>19</sup> Karen Sawislak, *Smoldering City : Chicagoans and the Great Fire, 1871-1874* (Chicago and London: University of Chicago Press, 1995), p.35.

<sup>20</sup> *Ibid.*, pp. 43-44. Chicago’s Board of Fire Commissioners absolved Mrs. O’Leary. But, that has never altered the popular presumption of her guilt.

<sup>21</sup> See Sara E. Wermiel, *The Fireproof Building : Technology and public safety in the nineteenth-century American City* (Baltimore and London: Johns Hopkins University Press, 2000) for the evolution of fire-resistant buildings in 19<sup>th</sup> century America.

<sup>22</sup> Nigel Smith, “Making Fire : conflagration and religious controversy in seventeenth-century London” in *Imaging Early Modern London : perceptions and portrayals of the city from Stow to Strype, 1598-1720*, ed. JF Merritt (Cambridge: Cambridge University Press, 2001), p.276.

<sup>23</sup> Amy S. Greenberg, *Cause for Alarm : the volunteer fire department in the nineteenth-century city* (Princeton, NJ: Princeton University Press, 1998)

Christine Rose's *Limits of Power: Great Fires and the Process of City Growth in America* combines historical narrative with theoretical analysis to determine why, during the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, adaptation to the urban form lagged so far behind need. Rosen compares the reconstruction of three cities – Chicago, Boston, and Baltimore – after they were devastated by fire. She highlights the role of power in the recovery choices of the leaders of these cities and attempts to identify what conditions limit the power of city-dwellers to improve their living environment. According to Rosen, cities were physically and spatially inflexible, and therefore could not adapt to new needs – like safer development in the wake of these massive conflagrations – in a timely manner.<sup>24</sup>

An overview of the fire literature reveals a striking commonality. After fires, cities and their elites create a myth, telling a reifying story that ensures their self-preservation. The myth-making process distills into four generalizations. First is the yearning for religio-spiritual sympathy. Second is the capitalist glorification of the cyclical destruction and regeneration of urban economies. Third is the opportunistic undertaking of urban design interventions, at least when circumstances of money and politics permitted. Fourth and finally, fires have served to exaggerate the aspirations of the elites that rebuilt the city, accompanied by a telling disregard for the classes that did not, despite frequently suffering the worst losses. Each of these narrative devices proved successful in reconstructing cities by repackaging them in seductive rhetoric and imagery. Reconstructions, scripted by the elite, invariably perpetuated their own privileged position, and protected their way of life from the base and unworthy.

### Urban Riots

In the summer of 1913 Igor Stravinsky's *Rite of Spring* premiered before a Parisian audience. The ballet's discordant notes and Vaslav Nijinsky's radical choreography led to pandemonium in the performance hall, and the legendary incident is still today remembered as a riot.<sup>25</sup> But, riots – the violent expression of the collective dissatisfaction of a social group--are usually triggered by less musical grievances. Like the Parisian outburst, however, they usually occur in cities. Cities provide the numbers

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<sup>24</sup> Christine Meisner Rose, *Limits of Power: Great Fires and the Process of City Growth in America* (New York: Cambridge University Press, 1986).

<sup>25</sup> For a complete account of the premiere that transcends the usual equation of *Rite* and riot, see Thomas Kelly, *First Nights: Five Musical Premieres* (New Haven: Yale University Press, 2000).

and densities critical for the articulation of an explosive mix of demands--economic, political, religious and racial.<sup>26</sup>

Rioters have left an extensive literature in their wake. Urban riots have been regularly documented since the 18<sup>th</sup> century – a period that coincides with the rapid growth of Western cities during the industrial revolution. The 18th century proved particularly violent for urban Europe. In England in 1714, parliament introduced the Riot Act to legally ease the dispersion of violent crowds.<sup>27</sup> The Act came to be read frequently as English rioters protested against the Excise Bill of 1733, Irish labor in 1736, the expulsion of John Wilkes in 1768, and the Catholic Relief Act in 1780. The last (in which rioters directed their violence against Catholics) came to be known as the Gordon riots and was the most violent and savagely repressed of all London's riots.<sup>28</sup> In the American colonies, racial violence was recorded as early as the 1712 New York slave revolt that killed 9 whites and at least 18 blacks.<sup>29</sup> France experienced prolonged rural rioting in the 18<sup>th</sup> century, culminating in the Flour Wars of 1775. Rising food prices and food shortages pushed the rioters – both peasants and townspeople, to attack prosperous farmers, grain merchants, millers and bakers.<sup>30</sup>

The early literature on urban violence discusses at length the collective and individual psychological profiles of rioters. Studies in crowd psychology failed, however, to address the underlying social and economic issues, and the resulting power dynamics that triggered urban violence.<sup>31</sup> For example, the riff-raff theory (common in early U.S. literature on urban racial violence and espoused by the established urban

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<sup>26</sup> This is not to suggest that rural riots do not occur. See George Rudé, *The Crowd in History, 1730 – 1848* (New York: Wiley, 1964). Rudé argues that the rural food riot has the least complicated triggers. Rural outbreaks of rioting corresponded with bad years for agriculture-- poor harvest and famine. Rudé claims that other social issues are rarely linked to this violence.

<sup>27</sup> No more than 12 persons could gather once the Magistrate had read aloud the Act. This provides the origin of the modern English phrase, “being read the riot act.”

<sup>28</sup> Rudé, *op. cit.*, p.59. 100 houses were selectively pulled down, valued at over 100,000 pounds. 285 rioters were killed, and of the 160 who were later brought to trial, 25 were hanged. Remarkably, all those who lost their lives were rioters rather than their Catholic targets.

<sup>29</sup> Richard Hofstadter, *American Violence, A Documentary History* (New York: Knopf, 1970), p.187. One of the death sentences handed down to a re-captured black slave reads: “burned with a slow fire that he may continue in torment for eight or ten hours and continue burning in the said fire until he be dead and consumed to ashes.”

<sup>30</sup> Rude, *op. cit.*, pp. 22-31. The Flour Wars are also referred to as the Corn Riots.

<sup>31</sup> Gustave Le Bon is credited with the creation of the field of Crowd Psychology with the publication of *The Crowd: A Study of the Popular Mind* in 1895.

elites) became a recurring and convenient explanation for rioting.<sup>32</sup> It states that rioters are usually drawn from the “criminal, deviant and rootless sections of society.” The theory blamed the ills in race relations on a misguided minority within the black population, rather than on systemic problems.<sup>33</sup>

The ideological tone of the early literature correlates with the patterns of violence. The Revolutionary period witnessed violent incidents not significant in themselves, but significant in popular memory – the Boston Tea Party, the Stamp Act Riots and Shays’ Rebellion. Most post-Revolutionary American violence exhibited a conservative character—historically directed against abolitionists, Catholics, radicals, blacks, and Asians. Ostensibly it has attempted “to protect the American, the Southern, the white Protestant or simply the established middle class way of life and morals.”<sup>34</sup> The 1840s and 1850s witnessed nativist violence against immigrants, particularly those from Ireland, followed then by a period of riots between Irish and blacks.<sup>35</sup> The New York City Draft riots of 1863 brought the greatest loss of life from any single episode of American rioting. Estimates have varied from 300 to 1200 dead, almost all of them black.<sup>36</sup> The riot visibly altered the city’s demographics. The black population declined 20 percent from 12,472 to 9,945 - most having left in terror. In the South, post-Civil War reconstruction pitted Negro militias against the White League and other white supremacist organizations.<sup>37</sup>

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<sup>32</sup> David Waddington, *Contemporary Issues in Public Disorder: A Comparative and Historical Approach* (London: Routledge, 1992), p.9.

<sup>33</sup> Ray Stannard Baker’s piece, *The Atlanta Riot* (New York, 1907) is illustrative of this line of thinking. A passage entitled “A Negro of the Criminal Type” reads thus:

The lowest stratum in all of our American Life is the ‘worthless Negro’, as he is called in the South. He is a wanderer, here today, there tomorrow; he is densely ignorant and lazy and often with no white man who is his friend. He works only when he is hungry; and he is as much criminal as he dares to be. It is this class, growing larger every year, though relatively very small compared with the 10,000,000 Negroes in the country that causes most of the trouble in the south. It carouses in the saloons, overflows the jails, fills the chain gangs: the accounts of its horrible crimes against women flood the newspapers, giving a bad name to the entire Negro race.

<sup>34</sup> Hofstadter, *op. cit.*, p.11.

<sup>35</sup> *Ibid.*, p. 15. The Anti-Catholic Know Nothing Party encouraged violence against the Irish to prevent them from voting.

<sup>36</sup> *Ibid.*, pp. 211-212. The riot was predominantly a race riot, colored further by labor unrest and unfair draft laws. The draft allowed the rich to buy their freedom from the Union Army through a payment of \$300.

<sup>37</sup> *Ibid.*, p. 101-103. The most remarkable confrontation occurred in New Orleans in 1874. The violence here progressed from mere riot to all-out battle. A Gatling gun and

Richard Hofstadter identifies 22 major racial riots between 1915 and 1919 that involved white aggressors and black victims. These were triggered by contests for urban space as southern blacks migrated to northern cities in search of employment. In contrast to race riots that occurred before WWI, the post-war riots exhibited greater retaliation by blacks, even as the legal system continued to profess individual sympathy for white rioters.<sup>38</sup> The East St Louis riot of 1917 was one of the bloodiest American riots of the 20th century – white mobs stalked blacks chanting, “get a Nigger, get another.” Officially, 9 whites and 39 blacks were killed, but the black death toll was arguably much higher.<sup>39</sup> Significant riots also took place in Houston in 1917, in Philadelphia in 1918, in Washington, D.C. and Chicago in 1919, and in Tulsa in 1921. In the Tulsa Race Riot a mob of whites razed a square mile of the city’s Greenwood district (known as the “Black Wall Street” because of its concentration of affluent blacks). The official death toll counted 10 whites and 26 blacks, but later estimates suggested that as many as 300 blacks had perished. In recent years, the Tulsa riot has been the subject of several books and television documentaries. More remarkable, the incident belatedly prompted the state-sponsored Tulsa Race Riot Commission, established in 1997 to clarify and document the events that had occurred three-quarters of a century earlier. Contemporary accounts of the riots had been literally cut out of the newspapers in the local archives, as part of an attempt to erase the trauma from the public record. Eight decades later, parts of Greenwood had still not been rebuilt. Much of what the rioters missed later succumbed to urban renewal and an Interstate highway, perpetuating the long-term troubles of a once vibrant area.<sup>40</sup>

Other sporadic rioting occurred in American cities during subsequent decades, often occurring—as it had during World War I-- in overcrowded and under-serviced war production centers. Harlem experienced riots in 1935 and 1943 but wartime race riots soon spread across many cities--from Mobile, Alabama to Newark, Detroit, and Los Angeles. In California, racial prejudice against Mexican immigrants came to a head. In

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artillery were employed in an attempt to wrest control of the state of Louisiana. 20 died and over 100 were wounded

<sup>38</sup> Robert Fogelson, *Violence as Protest* (New York: Doubleday, 1971), p. 7.

<sup>39</sup> Waddington, *op. cit.*, p. 57. Unofficial estimates put black deaths at over 100. In addition, more than 300 buildings were destroyed. Conflictingly, Hofstadter lists the Tulsa riot as bloodier with an estimated 150 unofficial black deaths.

<sup>40</sup> See Scott Ellsworth, *Death in a Promised Land: The Tulsa Race Riot of 1921* (Louisiana State University Press, 1982); Alfred L. Brophy, *Reconstructing the Dreamland* (Oxford University Press, 2001); James S. Hirsch, *Riot and Remembrance: The Tulsa Race War and Its Legacy* (New York: Houghton-Mifflin, 2000).

the so-called Zoot-Suit riots of Los Angeles, American servicemen hunted and attacked Mexicans. Often the police stood by, and sometimes they arrested the victims.<sup>41</sup> The national spread of race-related urban violence prompted the Committee on Race Discrimination of the American Civil Liberties Union to issue an urgent pamphlet, explaining “How to prevent A RACE RIOT in your home town.”<sup>42</sup>

The charged politics of the 1960s produced a change in the pattern of rioting. No longer were riots launched directly by those whites perceived by racial minorities as oppressors. Now young blacks in American inner cities instead constituted the new and liberated aggressors. The summer months of the 1960s brought forth ghetto riots in cities throughout the United States. They all shared one important aspect with their precursors in Harlem in 1935 and 1943: blacks directed violence against symbols of white power and wealth, and also against the police that protected those symbols. Rarely did they target white individuals.<sup>43</sup> Between 1965 and 1968, more than three hundred riots occurred, resulting in two hundred deaths and the destruction of several thousand businesses. The National Advisory Commission on Civil Disorders (Kerner Commission), which necessarily focused on riots occurring prior to 1968, the noted that the rioters were better educated than the non-rioters, extremely hostile to whites and middle-class blacks, and did not trust the American political system.<sup>44</sup> Adding fire to their own version of a riot chant, “burn, baby burn,” the black residents of the Watts district of Los Angeles in 1965 selectively tore down 600 buildings. About 10,000 blacks took part in the 6-day riot that killed 34 persons, injured 1,032 and destroyed property worth \$40 million.<sup>45</sup> In Detroit in 1967, rioting killed 43 persons and led to 7,200 arrests. In the same decade major riots occurred in Washington DC, Newark, Philadelphia, Chicago and Harlem.

The 1980s saw urban violence in Miami. In 1980, an all-white jury acquitted four white police officers that had beaten a black businessman to death. In the rioting that

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<sup>41</sup> Hofstadter, *op. cit.*, p. 336. The elaborate and unique attire worn by young Mexican men was known as the Zoot-suit. The mainstream press came to refer pejoratively to all Mexicans as Zoot-suiters. After the riots, the Los Angeles City Council made the wearing of the eponymous Zoot-suit a misdemeanor.

<sup>42</sup> Winifred Raushenbush, *How to Prevent A RACE RIOT in Your Home Town*, (New York: ACLU, October 1943).

<sup>43</sup> Fogelson, *op. cit.*, p. 17.

<sup>44</sup> *Report of the National Advisory Commission on Civil Disorder* (New York: EP Dutton & Co., 1968), p. 134.

<sup>45</sup> Hofstadter, *op. cit.*, p. 263.

ensued 18 were killed and the physical damage was estimated at 200 million dollars.<sup>46</sup> In 1992, the civil unrest in Los Angeles unleashed by the acquittal of the white police who beat black motorist Rodney King exceeded the death and destruction of the largest summer riot of the 1960s. There were more than fifty deaths, more than 1,150 structures were destroyed, and about 10,000 small businesses were damaged.<sup>47</sup>

With the changing profile of the rioter, the literature purporting to explain riots changed, too. The riff-raff theory lost currency in most academic writings, and few commentators cast black rioters as deviant criminals incapable of exercising any restraint when absorbed by a mob. Robert Fogelson, writing in the aftermath of the ghetto riots, argued that black rioting was an articulate and selective expression of protest against the existing power dynamic.<sup>48</sup> He sought to explain the curious spatial behavior of black rioters, who by restricting their violence to the ghettos, were seen to be destroying their own neighborhoods. Fogelson's research showed patterns in the violence within the neighborhoods. Mobs burned stores, not houses – particularly stores that sold shoddy products at high prices. They did not march to the jails, courthouses, and city halls that were located outside their self-imposed boundaries. Instead, they struck out at immediate and proximate symbols of their oppressors. He also argued that rioters restricted themselves to the ghettos because of the baggage they carried – “the trauma of white racism, a legacy of slavery, subordination and segregation which has compelled the black to confine their aggression to their own community rather than direct it at the outside society.”<sup>49</sup> Black violence was directed against the system's abuses and not the system itself. Rioters were trying to alert society rather than overturn it.

Yet, some urban violence is subversive, and consequently the spatial dimension assumes significance beyond the mere symbolic. In France, the twin revolutions of 1789 and 1848 were in the main, subversive urban rioting by dissatisfied Parisians. In 1848, wage earners--as many as 100,000--led the revolt within the city that took 48,000 troops to quell. The police estimated 2,000 killed and wounded, and 15,000 arrested. Descriptions of the rioting hinted at the war-like strategies that were employed--“38 barricades on the Rue St. Jaques, 68 between the Hotel de Ville and the Bastille, and 29

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<sup>46</sup> Dennis E. Gale, *Understanding Urban Unrest: From Reverend King to Rodney King* (Thousand Oaks: Sage, 1996), p. 104.

<sup>47</sup> *Ibid.*, p. 7. See also Chapter 13 of this volume.

<sup>48</sup> An opposing and controversial theory is proposed by Edward Banfield in *Heavenly City Revisited* (Boston: Little, Brown and Company, 1974), pp. 61-63. Writing at about the same time as Fogelson, Banfield argues a controversial and extreme position--that rioting is an expression of the innate violent character of the lower classes.

<sup>49</sup> Fogelson, *op. cit.*

more along the great popular highway of the Rue du Faubourg St. Antoine.”<sup>50</sup> The rioters were concerned with the symbolic and strategic occupation of urban spaces--aiming to usurp the power that lay situated in those spaces. In 1789 they succeeded, but not in 1848. In a few years Baron Haussmann would create boulevards--his grand anti-rioting device—through the areas of the city once vulnerable to urban guerilla warfare. The urban elite of Paris, in a single authoritarian measure, forever removed the setting and the context for potential future urban violence.<sup>51</sup>

Often urban violence since the 18<sup>th</sup> century has been a consequence of the juxtaposition of an imperial power and a colonized population. The 1936 Zanzibar riot<sup>52</sup> and the Jalianwala Bagh massacre in British India in 1919 that killed 300 are illustrative examples.<sup>53</sup> However, the most notorious violent outbreak stemmed from the departure of a colonizing power. The partition that created India and Pakistan in 1947 left an estimated 500,000 dead in a frenzy of Hindu and Muslim rioting. Partition turned 10 million people into refugees--their plight described with misplaced pride by some as the greatest migration in history. The massacres and the migration changed overnight the demographics and urban characteristics of several South Asian cities.<sup>54</sup> More than a half-century later, there are still echoes of those days of madness. Religious riots in India remain a political ploy to polarize public opinion along religious lines prior to an election. Predictably, the electoral benefits accrue to the Hindu majority and its political representatives. The contemporary Indian riot is an accurate mirror of the political dynamics that accompany the contests for power in a democracy. More broadly, it is perhaps universally true that riots are a product, albeit extreme, of the politics of a place and its society.

An overview of the literature suggests three generalizations regarding urban violence. First, riots can be employed as either a means of reinforcing the traditional power dynamic (early 20<sup>th</sup> century racial violence in the US), or as a symbolic resistance to that

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<sup>50</sup> Rudé, *op. cit.*, p. 173.

<sup>51</sup> Violence did return much later in 1968. Students and workers battled the police on the streets of Paris. Crowds of 15,000 (supported by 80 percent of Parisians, a poll showed) manned the barricades once again. 367 were wounded, 460 arrested and 188 cars damaged; Anthony Deane-Drummond, *Riot Control* (London: Thornton Cox, 1975), p. 75.

<sup>52</sup> *Report of the Commission of Enquiry concerning the riot in Zanzibar on the 7<sup>th</sup> of February, 1936* (Zanzibar: Government Printer, 1936). Manga Arabs resorted to violence to protest the colonial manipulation of the copra crop cash transactions.

<sup>53</sup> Deane-Drummond, *op. cit.*, pp. 13-14.

<sup>54</sup> Delhi's population grew 100 percent in the decade following partition as it accommodated immigrants mostly from Pakistani Punjab.

power dynamic (ghetto riots of the 1960s). The two forms are equally traumatic to the victims. When employed as a symbolic means of resistance, the violence can sometimes—counter-intuitively—be sophisticated, restrained, and selective. Second, patterns of urban violence change over time. The evidence suggests that those who hold the advantage in the urban power equation are the initial aggressors. Subsequently (generations later perhaps), those who were (and still are) perceived to be the oppressed resort to violent protest. This shift in pattern correlates with the changing social norms of a place. Third, riots are usually not subversive. Consequently, rioters do not have a strong expansionist spatial agenda. Their anger is released on the proximate and immediate objects of their wrath. By contrast, true revolutionaries do brandish grand spatial aims, that distinction is important to make and emphasize.

Riots are not like earthquakes and fires. The latter, whose causality is more easily identified, are abstract and detached agents of nature that visit cities for a few destructive moments. Then the shaking or burning ceases, leaving space and time for residents, politicians, city boosters and the urban elite to construct narratives that glorify the city's trauma and its noble resilience. These narratives engender popular memories and are strategically constructed to stimulate urban rebirth, economic regeneration, and self-preservation of the leadership.

Riots, on the other hand, are neither easy to remember nor to forget. Their memories exist for generations in bitter limbo, making difficult any consensual attempt at memorializing. Tulsa's century-long contest to come to terms with the events of 1921 is but the best documented of such attenuated struggles. Glenda Gilmore, describing the lack of memorials for the dead of Wilmington's 1898 race riot, sums it thus: "Sometimes murder does its best work in memory, after the fact. Terror lives on continuing to serve its purpose long after the violence that gave rise to it ends."<sup>55</sup> Rioters – both victims and aggressors--do not simply go away. They do not give a recovering city the luxury of laying scorn on an evil, some long-departed apparition of nature. Memories of riots are difficult to confront both collectively and individually, whenever and wherever bitter antagonists continue to remain constituents of a still-divided society.<sup>56</sup>

As with other kinds of urban trauma, the facts of riots are inseparable from the narratives constructed to interpret them. In the American riots of the 18<sup>th</sup> and 19<sup>th</sup>

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<sup>55</sup> Glenda E. Gilmore, "Murder, Memory, and the flight of the Incubus" in *Democracy Betrayed: The Wilmington Race Riot of 1898 and its legacy*, eds. David S. Cecelski and Timothy B. Tyson (Chapel Hill and London: University of North Carolina Press, 1998), p. 86.

<sup>56</sup> *Ibid.*, p. 90.

centuries, mainstream populations faced little inhibition in violently expressing their prejudice and hatred toward the marginal. The power dynamic here was so skewed that elite aggressors hijacked the post-riot script and corrupted it fully to justify their violent actions. The legacy of the Wilmington race riot of 1898 is a good example. The violence at Wilmington was less riot than “simply the strong slaying the weak.”<sup>57</sup> Having killed some blacks and exiled the rest along with the liberal whites, the white supremacists of the city determined the historiography of the violence and scripted the narrative that grew out of it. An enduring myth of those times, and one whose imagery still persists, is that of the black male incubus that violates the sexuality of pure white women.

This cursory examination of urban rioting during the last 300 years suggests that early violence was directed against the weak, while more recent violence has been symbolically directed against the oppressor. A marginalized social group that has been consistently ignored and deprived resorts to riotous entry onto the mainstream’s radar. This provides it with self-respect, and also attention, recognition and economic benefits from the alarmed, perhaps reluctant, mainstream.<sup>58</sup> These later riots may be considered a complex expression of social resilience – one that is signaled by destruction rather than rebuilding. At the same time, this very lack of rebuilding emphasizes the staying power of the trauma. In places where urban unrest is most deeply rooted in social schisms, long-term recovery and resilience are hardest to achieve.

### Urban Warfare

The images of cities under siege have had an enduring existence. War in pre-modern times was primarily carried out through siege, and its representations in history and culture have perpetuated the position of the city as the site of war.<sup>59</sup> The reasons that made cities the object of deliberate war-time destruction ranged from the impetuously revengeful to the strategically careful debilitation of enemy infrastructure and morale. Plunder, vengeance, strategy, envy, and pleasure conflated to produce urban ruin. Many cities of the earliest civilizations do not exist anymore. Ur of Sumer, Mohenjodaro and Harappa of the Indus valley, Knossos of Mycenaean Crete, and Hellenic Miletus in Turkey exist, but only as deserted ruins and in the non-physical traces of historical and

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<sup>57</sup> *Ibid.*, p. 88.

<sup>58</sup> Paul Bullock, *Watts: The aftermath* (New York: Grove Press, 1969), p.51.

<sup>59</sup> Martha Pollak, “Representations of the city in siege views of the seventeenth century: The war of military images and their production” in *City Walls: the urban enciente in global perspective* (Cambridge, UK: Cambridge University Press, 2000), pp. 605-646.

mythical accounts. Carthage (its remains now in Tunisia) was famously razed by vindictive Romans in 146 BC, and then rebuilt a hundred years later by its destroyers. In the 7<sup>th</sup> century AD it too finally became a city that forever passed into history, though it lingers on in the suburbs of Tunis. Diverted rivers too, can kill cities. The Mongolian city of Khara Khota (the Black City, now in China) was parched to death by the ascendant Ming dynasty of 14<sup>th</sup> century China when they diverted (as one story says) the course of the Black River.<sup>60</sup> Devoured by sand dunes of the Gobi desert, it never made a comeback.

Early urban destruction employed rudimentary technology. The battering ram, the stone catapult and the fire torch were favorites. The city wall, erected to protect the residents and their economic activity from attackers, became the iconic and dichotomous marker of urban and rural, inside and outside, and sheltered and vulnerable. The Aurelian wall of Rome, for example, built between 270 and 282 AD was 19 kilometers long, had 18 gates and 381 square towers. It served its purpose well into the 19<sup>th</sup> century, when it was breached for the last time in 1870.<sup>61</sup>

Cannons and firearms came in the 15<sup>th</sup> century, and forever altered the scale and impact of warfare.<sup>62</sup> These new weapons of mass destruction were responsible for the elaborate defensive constructions that city's then began to adopt.<sup>63</sup> But by the 19<sup>th</sup> century fortified walls, which drew their lineage from Jericho of 7500 BC, were no match for rifled artillery and explosive shells.<sup>64</sup> The new devices to defend the city, trenches and isolated forts, moved afar, leaving behind the city, it was hoped, safe and detached from violence.<sup>65</sup> In more recent times, though cities have frequently been made aware of their vulnerability, few, if any, have vanished forever. In 1814, the British torched Washington DC, destroying the White House, the Capitol, and about 5 percent of the

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<sup>60</sup> Donovan Webster, "Alashan: China's Unknown Gobi" in *National Geographic*, January 2002, p. 56.

<sup>61</sup> Horst de la Croix, *Military Considerations in city planning: fortifications* (New York: George Braziller, 1972), pp. 39, 31.

<sup>62</sup> Horst de la Croix, *Military Considerations in city planning: fortifications* (New York: George Braziller, 1972), p. 39.

<sup>63</sup> See Horst de la Croix, *Military Considerations in city planning: fortifications* (New York: George Braziller, 1972) for a discussion of city fortifications influenced by firearms and other advances in war technology.

<sup>64</sup> Horst de la Croix, *Military Considerations in city planning: fortifications* (New York: George Braziller, 1972), p. 13.

<sup>65</sup> Horst de la Croix, *Military Considerations in city planning: fortifications* (New York: George Braziller, 1972), p. 56.

city.<sup>66</sup> The American Civil War saw the destruction (sometimes accidental) of three major Southern cities--Atlanta, Columbia and Richmond--near the end of the conflict. Historians still debate whether the retreating Confederate defenders or the occupying Union invaders were responsible for the destruction.<sup>67</sup>

The airborne bomb marked the next systemic change in warfare. It was first dropped on Venice in 1849 from Austrian balloons.<sup>68</sup> The First World War saw the use of German airships, beginning with the bombing of Liege, in Belgium, in 1914. In England, over the course of the Great War, gigantic and unwieldy Zeppelins dropped 200 tons of bombs, killed over 550 people, and caused damage of more than a million and a half pounds.<sup>69</sup> Difficult to maneuver, and vulnerable to even the smallest firearms, it was the hopeless airships, and not the helpless cities they targeted, that disappeared forever.

The first airplanes appeared in the 1911 Italo-Turkish conflict.<sup>70</sup> In the century that followed they became the city's most enduring man-made tormentor. In World War I, Bothas, Germany's first bombers, dropped 76 tons of bombs and killed more than 850 persons in Britain.<sup>71</sup> British Sopwiths and Handley-Pages retaliated against German targets, but were unable to bomb Berlin, the enemy's capital.<sup>72</sup> At the start of the War, Britain's Royal Flying Corps had a hundred aircraft. By the end, formally christened as the Royal Air Force, it had more than 22,000.<sup>73</sup> In the years between the Wars, aircraft were used to deadly effect on most continents. In *A History of Bombing*, Sven Lindqvist provocatively reminds us of the substantial number of bombings of colonial peoples during this period.<sup>74</sup> The Royal Air Force made disobedient Iraqi tribesmen behave by

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<sup>66</sup> John W. Reps, *Washington on View: the Nation's Capital since 1790* (Chapel Hill and London: The University of North Carolina Press, 1991), pp 61, 79. The built-up area of the city has been interpolated from two maps published in the book. The first is S.S Moore and T.W. Jones' 1802 map of the city showing the extent of construction in Washington DC. The second is Henry S Tanner's similar 1834 map of the city showing construction.

<sup>67</sup> Geoffrey C Ward, et al, *The Civil War, An Illustrated History* (New York: Alfred A. Knopf, 1991), pp. 330, 359, 371. See also Marion Brunson Lucas, *Sherman and the Burning of Columbia* (College Station: Texas A&M University Press, 1976).

<sup>68</sup> Tom Vanderbilt, *Survival City : Adventures Among the Ruins of Atomic America* (New York: Princeton Architectural Press, 2002), p.53.

<sup>69</sup> John Ray, *The Night Blitz 1940-1941* (London: Cassell, 2000), p. 21.

<sup>70</sup> David Wragg, *Bombers: From the First World War to Kosovo* (Phoenix Mill: Sutton, 1999), p. vii.

<sup>71</sup> Ray, *The Night Blitz*, p. 22.

<sup>72</sup> Ibid., p. 24.

<sup>73</sup> Wragg, *Bombers*, p. 10.

<sup>74</sup> Sven Lindqvist, *A History of Bombing* (New York: Norton, 2003).

“burning down their reed-hutted village[s];” Italians used planes and bombs in Abyssinia (now Ethiopia), as did the Japanese in Manchuria, and the Germans in the Spanish ‘Civil War.’<sup>75</sup> The bombing of Gernika in 1937 came to epitomize the horrors of aerial bombardment, largely through the help of Picasso.

The years after the First World War witnessed debates, usually one-sided, over the ethics of bombing cities and civilians from the air. Giulio Douhet, an Italian general and early air strategist, stands out. In his 1921 book, *Command of the Air*, he argued that civilian populations were valid targets for aerial bombers. Others, like General Billy Mitchell of the US encouraged that “the places where people live and carry on their daily lives” be destroyed. Britain’s Prime Minister, Stanley Baldwin, in 1932 observed that “the only defense is offense, which means that you have to kill more women and children more quickly than the enemy if you want to save yourself.”<sup>76</sup> Collectively, these sentiments came to be known as the Bomber doctrine.

The Second World War brought, unfortunately for cities, the fullest application of the doctrine. Yet, the War also revealed flaws in the arguments of the aerial hawks who considered the city a proxy for civilian morale.<sup>77</sup> Early in the war the adversaries were careful to avoid civilian targets.<sup>78</sup> In the latter half of 1940, Luftwaffe attacked RAF airfields in daylight hours during the Battle of Britain. The Allies too attacked targets that were solely of military or industrial value. The madness of ‘Total War’ soon changed all that.

Both sides relentlessly attacked enemy cities. Attackers believed that increased civilian homelessness could foment dissatisfaction with the national wartime government.<sup>79</sup> The phrase “forced to flee to the countryside” circulated with high frequency among military strategists while speaking of city residents.<sup>80</sup> Its regressive

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<sup>75</sup> Wragg, pp. 15, 30.

<sup>76</sup> John Ray, *The Night Blitz 1940-1941* (London: Cassell, 2000), pp. 27, 29 (quoting Stanley Baldwin)

<sup>77</sup> Josef W. Konvitz, *The Urban Millennium: The city-building process from the early middle ages to the present* (Carbondale: South Illinois University Press, 1985), p. 176-177.

<sup>78</sup> David Wragg, *Bombers: from the First World War to Kosovo* (Phoenix Mill: Sutoon, 1999), p. 26.

<sup>79</sup> For a discussion of civilian morale see Jeffrey M. Diefendorf, *In the wake of war: the reconstruction of German Cities after World War II* (New York; Oxford: Oxford University Press, 1993), and *The Civilian in war : the home front in Europe, Japan and the USA in World War II*, ed. Jeremy Noakes (Exeter, UK : University of Exeter Press, 1992).

<sup>80</sup> John Ray, *The Night Blitz 1940-1941* (London: Cassell, 2000), p. 27.

anti-urban imagery hinted at the decivilizing pleasure it provided to the attacker. Rotterdam was the first major city to come under German air attack. In May 1940 it lost more than a thousand residents and over 6,500 acres of its downtown area.<sup>81</sup> Warsaw, also destroyed by the Germans, was not attacked from the air. It was occupied in September 1939, and over the length of the war systematically destroyed from within. Three-quarters of a million of its residents died and 80 percent of its buildings were destroyed.<sup>82</sup> Germans targeted their Night Blitz against English cities, attacking London on 66 of 67 consecutive nights from September 7, 1940. Bomb raid shelters proved inadequate, and the London Underground served as sleeping haven for 120,000 Londoners nightly.<sup>83</sup> The Tube also served as community kitchen, medical dispensary, and toward the end of the war as assembly line for the manufacture of key war-time components.<sup>84</sup> London itself suffered the brunt of the Blitz, receiving about ten times as much bomb tonnage as the next British city, Liverpool.<sup>85</sup> Coventry, much smaller by comparison, was a striking success of urban obliteration. In one November night of 1940, 568 people died, 90 percent of the city core was destroyed, as were two thirds of the housing stock, and almost all its industries.<sup>86</sup> The devastating damage that German airplanes wreaked entered the lexicon of the Luftwaffe as *Koventrieren* (Coventrated).<sup>87</sup>

The Allies soon retaliated, and did so with urban devastation far greater than what the Germans had thrust on them. Diefendorf estimates that in World War II as many as 600,000 German civilians were killed in air raids. Large German cities with populations in excess of 100,000 saw on an average 50 percent of their built-up areas destroyed.

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<sup>81</sup> Han Meyer, "Rotterdam: The Promise of a new, modern society in a new, modern city, 1940 to the present" in *Out of Ground Zero: Case Studies in Urban Reinvention*, ed. Joan Ockman (Munich: Prestel, 2002), pp. 84-97.

<sup>82</sup> Stanislaw Jankowski, "Warsaw: Destruction, Secret Town Planning, 1939-44, and Postwar Reconstruction" in *Rebuilding Europe's Bombed Cities*, ed. Jeffrey M. Diefendorf (London: Macmillan, 1990), p. 80.

<sup>83</sup> John Gregg, *The Shelter of the Tubes : Tube Sheltering in Wartime London* (Harrow Weald: Capital Transport, 2001), p. 39.

<sup>84</sup> *Ibid.*, p. 76.

<sup>85</sup> John Ray, *The Night Blitz 1940-1941* (London: Cassell, 2000), p. 264. Figures from Appendix B.

<sup>86</sup> Ray, *The Night Blitz*, p. 155; *Rebuilding Europe's Bombed Cities*, ed. Jeffrey M. Diefendorf (London: Macmillan, 1990).

<sup>87</sup> Ray, *The Night Blitz*, p. 157. For a discussion of post-war rebuilding efforts in several English cities, see Lionel Esher, *A Broken Wave: the Rebuilding of England 1940-1980* (London: Allen Lane, 1981); for a more detailed discussion of Plymouth, see Alan Powers, "Plymouth: Reconstruction after World War II," in Ockman, ed., *Out of Ground Zero*, pp. 98-115).

Hamburg and Dresden were the most heavily damaged; others included Cologne, Kassel and Berlin.<sup>88</sup> W.G. Sebald's *On the Natural History of Destruction*, contains a lengthy (and controversial) account emphasizing the extent of German urban suffering.<sup>89</sup> London suffered about 31,000 deaths though the course of the War, compared with Hamburg's 40,000 in six days;<sup>90</sup> Dresden may well have lost as many as 135,000 lives in a single night.<sup>91</sup> Four years into the war, Europe could be described as a "fortress without a roof" – a belated allusion to Stanley Baldwin's prophetic warning of 1932 that "for the man on the street...there is no power on earth that can protect him from bombing...The bomber will always get through."<sup>92</sup>

In Japan, extensive reliance on timber construction made cities especially vulnerable. Compared to Germany, even relatively limited physical destruction wrought heavy civilian casualties.<sup>93</sup> Tokyo was the site of the single greatest man-made calamity, comparable only with Dresden in terms of immediate death toll. On March 9, 1945 incendiary bombs released from Allied planes burned 16 square miles of the city and killed about 84,000 of its residents.<sup>94</sup> The two nuclear bombs dropped on Hiroshima and Nagasaki did not exact as high an instant death toll as the "conventional" bombing across Tokyo. Hiroshima lost about 80,000 residents on August 6, 1945<sup>95</sup> and, three days later Nagasaki lost 50,000.<sup>96</sup> The long-term effects were far more significant though. In the mid 1990s, for instance, Hiroshima listed more than 180,000 dead as a result of the bombing.<sup>97</sup> In 1945, J. Robert Oppenheimer, the father of the nuclear bomb had quoted

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<sup>88</sup> Jeffrey M. Diefendorf, *In the Wake of War: The Reconstruction of German Cities after World War II* (New York;Oxford: Oxford University Press, 1993), p. 11.

<sup>89</sup> W.G. Sebald, *On the Natural History of Destruction* (New York: Random House, 2003).

<sup>90</sup> Niels Gutschow, "Hamburg: the 'Catastrophe' of July 1943" in *Rebuilding Europe's Bombed Cities*, ed. Jeffrey M. Diefendorf (London: Macmillan, 1990), p. 118.

<sup>91</sup> David Irving, *The Destruction of Dresden* (New York: Holt, Rinehart and Winston, 1964), p. 14. Irving's research suggested this number. However, other figures for the death toll in Dresden range from 35,000 to 200,000.

<sup>92</sup> Tom Vanderbilt, *Survival City : Adventures among the ruins of atomic America* (New York: Princeton Architectural Press, 2002), pp. 57-58.

<sup>93</sup> Konvitz, p. 182.

<sup>94</sup> Vanderbilt, p. 59.

<sup>95</sup> Carola Hein, "Hiroshima: the atomic bomb and Kenzo Tange's Hiroshima Peace Center" in *Out of Ground Zero: case studies in urban reinvention*, ed. Joan Ockman (Munich: Prestel, 2002), p. 65.

<sup>96</sup> Wragg, *Bombers*, p. 223.

<sup>97</sup> Hein, p. 65.

aloud from the Bhagavad-Gita when he witnessed the first test explosion, “I am become death, the destroyer of worlds.”

Towards the end of the war, German missiles, the V1 and V2 – the first cruise and ballistic missiles respectively, flew down on British cities. Of almost 8,500 launched, 2,400 reached the British Isles. Together they killed more than 6,000 people, but much too late to influence the outcome of the war.<sup>98</sup> Missiles have since become an enduring threat to contemporary cities. Minutemen, Titans and SS-26s, the inter-continental ballistic missiles of the United States and the erstwhile USSR, silently wait underground in dispersed rural silos,<sup>99</sup> or in dark sailing submarines in a lingering war of atomic deterrence that targets the one-time enemy’s sleeping cities.

During the long respite from nuclear attack during the Cold War, aircraft continued to be used extensively in ‘conventional’ warfare, most dramatically in Korea, Vietnam, the Balkans, and the Middle East. For the Vietnam War, the Americans invented rural carpet-bombing, targeted against a swift, nimble and invisible land-bound enemy. More recently, Mostar and Sarajevo in the Balkans, Beirut, Baghdad and Kuwait City in the Middle East, and Kabul and other cities of Afghanistan have joined (or rejoined) the list of others that have been traumatized by war.<sup>100</sup>

Despite the incredible destruction unleashed on cities during the 20<sup>th</sup> century, the resilience of urban populations remained remarkably strong. Cities did not just collapse and wither away even when subject to the most debilitating violence. Contrary to every assumption of the air strategists, the will of urban citizens proved hard to overcome.<sup>101</sup> Coventry, the most devastated place in Britain during World War II, was up and running in about a month.<sup>102</sup> Hamburg had access to surplus electrical power within 9 days of its fierce bombing by the Allies.<sup>103</sup> Cities and their surviving residents found ways to overcome the disruption that warfare wreaked on their lives.

The resilience of cities has been assisted, on paper at least, by protective wartime conventions that have attempted to keep pace with advancing war technology. The Hague Convention of 1899 made the first reference to aerial bombardment, prohibiting the

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<sup>98</sup> Wragg, p. 179.

<sup>99</sup> See Vanderbilt, *Survival City*, for a discussion of Cold War missile silos in the American rural landscape.

<sup>100</sup> For an overview of Mostar, see John Yarwood, *Rebuilding Mostar: Reconstruction in a War Zone* (Liverpool: Liverpool University Press, 1999). For Sarajevo see “Sarajevo” in Gastil and Ryan, eds., *Information Exchange*.

<sup>101</sup> Konvitz, p. 176-177.

<sup>102</sup> *Ibid.*, p. 179.

<sup>103</sup> *Ibid.*, p. 181.

deployment of bombs from balloons. The prohibition expired in five years, and reappeared in the 1907 Hague Convention XIV, binding now for perpetuity. Also in 1907, Article 25 in Convention IV decreed that “the attack or bombardment, *by whatever means*, of towns, villages, dwellings, or buildings which are undefended is prohibited.” The terminology was sufficiently loose to have multiple and convenient interpretations. In any case, France, Germany, Italy, Japan and Russia never signed Convention XIV, and the United States withdrew in 1942. The 1923 Hague Rules of Aerial Warfare were more explicit, but unfortunately never entered legally binding form. The draft rules forbade the bombing of “cities, towns, villages, dwellings or buildings not in the immediate neighborhood of...land forces.”<sup>104</sup> During World War II, scholars at Harvard University made lists of European buildings and monuments of importance. Although provided to Allied bombers, the information rarely saved buildings.<sup>105</sup>

The destruction of World War II ensured that later conventions became more sophisticated and rigorous. The four oft-quoted Geneva Conventions of 1949 delineated comprehensive measures to protect non-combatant individuals and those responsible for their protection.<sup>106</sup> The 1954 Hague Convention for the Protection of Cultural Property explicitly prohibited architecture, groups of buildings, and archeological from serving as valid targets of destruction.<sup>107</sup> More recently, the 1977 Geneva Protocol I, and the 1981 UN Weapons Convention have addressed aspects of aerial warfare. Thus, over more than a century, international law has imposed limits on the rights of belligerents to injure the enemy. Non-combatants must be protected in all situations, and protection extends to portions of the built (and symbolic) environment that sustains such civilians. Other initiatives include the establishment of institutions like the International Committee of the Red Cross. The wide array of laws attests to the persistent hope that humanitarian tenets remain the norm, even in the midst of deadly war. Yet the scope of ongoing violations suggests that resistance to violence is limited. The only solace is the resilience of cities and their citizens.

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<sup>104</sup> *Documents on the Laws of War*, eds. Adam Roberts and Richard Guelff (Oxford: Clarendon Press, 1982), pp. 121, 53, 126. See also Lindqvist, *A History of Bombing*.

<sup>105</sup> Josef W. Konvitz, *The Urban Millennium: The city-building process from the early middle ages to the present* (Carbondale: South Illinois University Press, 1985), p. 179.

<sup>106</sup> *Documents on the Laws of War*, eds. Adam Roberts and Richard Guelff (Oxford: Clarendon Press, 1982), p. 169-338.

<sup>107</sup> *Documents on the Laws of War*, eds. Adam Roberts and Richard Guelff (Oxford: Clarendon Press, 1982), p. 339-370.