

Review

Shelf Life - The US, Napalm and Sonic weapons

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Robert Neer's *Napalm: An American Biography*; Juliette Volcler's *Extremely Loud: Sound as a Weapon*

Modern warfare changed on a Harvard soccer field in the summer of 1942. On July 4 of that year, Louis Fieser, head of the National Defense Research Committee's "Anonymous Research Project No. 4," flipped a switch, triggering a white phosphorous explosion inside a bomb filled mostly with jellied gasoline. The use of flame in war had been on the decline since the spread of gunpowder in the thirteenth century, but Fieser showed that with napalm, planes could drop sticky fire from the sky.

As described by Robert Neer in *Napalm: An American Biography* (Belknap/Harvard; \$29.95), the innovation depended on taxpayer money and academic know-how, and required the fervent corporate desire for more products to sell. To ensure that napalm would have the desired effect, its architects emptied entire villages in the Midwest so they could be test-bombed, and built detailed replicas of German and Japanese homes to see how fast they would burn. White Cheshire pigs were napalmed too, because, Neer writes, their "skin was thought most closely to resemble that of humans."

Though it is closely associated with the war in Vietnam, napalm was used extensively in World War II, mostly on Japan. On March 9, 1945, US planes dropped 690,000 pounds on Tokyo, killing more than 87,000 people in a single night (more than would die in the atomic blasts at either Hiroshima or Nagasaki). Neer's account of that bombing is horrific: the fire spread quickly, seizing all the oxygen for itself; everything became too hot to touch; people were lifted from the ground and whipped about by the firestorm's wind like airborne torches; many who sought refuge from the flames in water were boiled alive; 5,000 feet up, the pilots and crewmen smelled the burning flesh and vomited. It was the beginning of a ten-day campaign that introduced napalm to cities across Japan.

The new weapon's effectiveness established, it would become an aerial weapon of choice worldwide. Greece dropped it on communist insurgents, European powers on their colonies in Africa and Asia, Brazil on Maoists, Egyptians on Israel, Israel on Palestine, Turkey on Cyprus, India on Pakistan, and Iraq on its Kurds. In Korea, the United States used more napalm than it had dropped in the Pacific in World War II, and in Vietnam it used even more. But as the US public was increasingly exposed to graphic news stories and photographs documenting napalm's effects on civilians—which appeared everywhere, from left-wing outlets like Ramparts to mass-market glossies like Ladies' Home Journal—the weapon came to represent all that was needlessly brutal about the American way of war.

An anti-napalm movement started, with protests outside napalm production facilities and on college campuses during visits by representatives of napalm profiteers like Dow Chemical (which also

manufactured the defoliant Agent Orange). By 1972, when newspapers around the world ran the now-famous photo of a naked 9-year-old Vietnamese girl named Phan Thi Kim Phúc running down a road with jellied gasoline singeing her flesh, napalm's demotion from "weapon" to "war crime" was well under way. President Nixon wondered if the photograph was "fixed."

Neer's closing chapters, which chronicle the decline in napalm use, are comparatively thin. Two incidents stand out. In 2003, the US military dropped Mark-77 "firebombs" during its advance toward Baghdad. The combustion looked and acted like napalm fire, but the Mark-77 had been made with a new, kerosene-based formula—and so, in the eyes of the military, it was no longer napalm. Five years later, the Senate finally ratified Protocol III of the international Convention on Certain Conventional Weapons (written in 1980), which bans the use of napalm and other incendiaries against civilians. But when President Obama signed the treaty into law, he appended a caveat: the United States will no longer drop incendiary weapons—unless the military deems it necessary.

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In *Extremely Loud: Sound as a Weapon* (New Press; \$24.95), the French journalist Juliette Volcler presents a scattered, piecemeal history of the attempts to build "acoustic weapons." There are examples from every swath of the sonic spectrum. Armies have long broadcast noises they hoped would deceive or terrify their enemies. In the mid-twentieth century, scientists tried, with little success, to build infrasonic sound guns that would incapacitate enemy soldiers by making their bones and organs vibrate. More recently, prisoners in America's "war on terror" have been bombarded with heavy metal and rap songs played at earsplitting volume for hours on end—or deprived of sound altogether, a tactic with equal capacity for harm.

The true weapon of our time might be some not-yet-unveiled cousin of the Long Range Acoustic Device (or LRAD, as it's more commonly known), a high-frequency sonic cannon capable of producing an unbearably strong high-pitched noise, essentially forcing anyone who hears it to flee. It's a "nonlethal" weapon of the sort increasingly in vogue since napalm's twilight—in fact, its manufacturer, the LRAD Corporation, insists that it isn't a weapon at all but a mere "device," allowing it to dodge most regulatory scrutiny.

Sonic weapons aim less to maim or inflict pain (although they can do both) and more to neutralize and control. At first blush, that sounds like progress. But if the harm these new weapons cause doesn't involve mutilated flesh, there won't be pictures in newsmagazines. What if, by virtue of being less obviously horrifying, they're also more operational, not just abroad but at home? In recent years, LRADs have been purchased and used by police departments across the country (indeed, the weapons are so unregulated that any citizen can buy his or her own). Protests were somewhat successful at putting an end to napalm's use, or at least at turning its name into a dirty word. In the future, similar attempts at dissent might be stymied—scattered by invisible waves of sound—before anyone can hear the message.

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P.S.

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