Toxic War and the Politics of Uncertainty in Iraq TOBY C. JONES

Department of History, Rutgers University, New Brunswick, N.J.; e-mail: tobycjones@yahoo.com

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The long American war on Iraq is not over.¹ In a country ravaged for more than two decades by crippling sanctions and military occupation, the social, cultural, and political-economic legacies of war seem unending. Perhaps even more disturbing, Iraqis now face widespread environmental destruction and a dystopian environmental future. The ecological wages of America's long war in Iraq are partly the consequence of "routine" violence, resulting from the systemic destruction of vital electrical, water, and sewage infrastructure over two decades.² It is possible to imagine that Iraq's cities and villages can be rebuilt. But even if it finds its way to the kind of political accommodation that makes reconstruction possible, parts of the country face other pernicious long-term environmental threats, among the most dangerous being the hidden toxic and radiological dangers that have settled in Iraqi bodies and deep in its landscape.³

Omar Dewachi has argued powerfully that the American military, having fashioned its stockpiles of nuclear waste into its preferred weapons of war in the late 20th century, subjected Iraq to a prolonged "toxic warfare experiment."⁴ Lurking in the detritus of war and in shelled-out buildings, coating tons of metallic scrap that line the highways and that are often collected, reused, and sold by hard-scrabble merchants, circulating in the water supply and in the soil, are the radioactive and toxic remnants of America's technological approach to modern war. Much of the damage will only be realized decades from now, as slow developing cancers and other latent effects take shape, but Iraq already suffers from chronic crises such as alarmingly high rates of congenital birth defects. In a 2012 study, six Iraqi, Iranian, and American scholars argued that birth defects in one Basra hospital had increased seventeen-fold between 2003 and 2011.⁵ Much of this is likely the result of the widespread use of depleted uranium (DU) ordinance, thousands of tons of which the U.S. military dropped or fired on Iraq between 1991 and 2010. In spite of widespread acceptance of its dangers globally, depleted uranium's toxic effects in Iraq are deeply contested, the subject of what is typically claimed to be "scientific" and empirical uncertainty. Scholars interested in war, and especially in the technopolitics of war and the "science" of postwar public health, should approach such claims of uncertainty, and the role of expertise in producing it, critically.

Depleted uranium is a hazardous byproduct of the 20th-century rush to produce nuclear energy and weapons. The United States is not alone in having weaponized DU. It is singular, however, in the extent to which it has used these weapons in war. Designed to penetrate heavy armor and maximize destruction, American strategists developed DU weapons to gain a battlefield advantage at the height of the Cold War. But it was in Iraq and not against Soviet tanks where they were used most extensively.⁶ DU is less radioactive than naturally occurring uranium, although it is just as toxic. In spite of its reduced radioactive profile, depleted uranium dust is deadly when ingested, inhaled, or embedded as a fragment in the body. Once vaporized, which it does exceptionally

easily, DU has the potential to scatter widely and settle in water, in sand, and in bones and vital organs, where it simultaneously poisons and emits radiation, slowly destroying surrounding cells.

Debates on the impact of DU, often framed through claims that there is not enough data to render judgment, appear plausible. They are akin to the sort of disagreement that scientific and medical observers are in the business of sorting through. The reality is that depleted uranium's toxic and radiological dangers are largely accepted as true everywhere except in Iraq and other battlefields in the Global South, such as Afghanistan. In the United States, DU-contaminated sites like Concord, Massachusetts and Colonie, New York—manufacturing centers for DU weapons that caused local environmental damage-have been shuttered by military or environmental authorities for the threats they pose to surrounding communities. Whereas American policymakers and citizens have been able to effectively mobilize, stir power to action, enroll state and national authorities in their environmental activism, and draw attention to toxic threats, Iragis have little access or ability to press authorities, particularly those that are most responsible for their predicament and best able to do something about it, into action. While Iraqis suffer from far worse rates of exposure than residents in suburban Massachusetts, Iraq's toxic status is mediated not so much by scientific evidence as by differential power relations and the politics of expertise. That political and environmental authorities, including the U.S. military, understand depleted uranium contamination as toxic in the United States but not in Iraq is not just alarming, but also points clearly to contentious politics around evidence and what and who shape scientific certainty.

Toxic (un)certainty is partly rooted in the politics and conventions of expertise, the networks of trust and institutional frameworks through which those who collect data and what figures as science are largely mediated by Western institutional and scientific privilege. It was the American military that managed which experts and varieties of scientific knowledge moved into and out of Iraq for two decades, fundamentally shaping the scope of field research, scientific determinations, and policy outcomes. Public health authorities, including the World Health Organization (WHO), the Royal Society, and the International Atomic Energy Agency, and politically invested actors like NATO and the United States Department of Defense, have all declared that Iraq's ruined landscape and staggering postwar rates of illness have little to do with DU's use and exposure, findings that absolve the U.S. military of accountability. In testing carried out on American veterans exposed to DU after 1991-results that authorities rely on to make broader claims about Iraqis exposed to DU, whom American authorities have not examined closely-the U.S. Department of Veterans Affairs and the U.S. military maintain that "so far no health problems associated with DU exposure have been found in Veterans exposed to DU."⁷ In a controversial 2013 report on congenital birth defects in Iraq, the WHO did not even address the possible relationship between chronic defects and exposure to DU.⁸ Even public health activist organizations, including those that seek the elimination of DU weapons and are committed to rehabilitating public health in postwar Iraq, are often caught up in the rhetorical claims about "uncertainty" that surround DU's dangers.⁹

While global health and U.S. military authorities have cast doubt on DU's toxic impact in Iraq, Iraqi scientists and doctors have documented through epidemiological and other methods unprecedented rates of illness, particularly in communities most exposed to toxic munitions; these include Dr. Samira Alani in Fallujah, who has received some media attention, scientists in Mosul, and a large group of investigators across southern Iraq. Iraqi doctors and health organizations around the country, including the Iraqi Society of Clinical Oncology (ISCO) and the Iraqi Ministry of Health, have brought attention to rising cancer rates, but are focused mostly on treatment rather than rooting out causes. But even when not addressing the likely link between war, depleted uranium, and cancer patterns directly, national authorities and doctors understand the likely connections, with Layth Mula Hussain at the ISCO noting euphemistically that "cancer trends in Iraq have special characteristics that warrant further attention by local and international stakeholders."¹⁰

"Iraqi" scientific findings linking DU with illness rarely figure in global or American efforts to understand Iraq's postwar health catastrophe. There is no evidentiary smoking gun that suggests Western scientific and political authorities are covering up what they know to be true, but the vast differences in Western compared to Iraqi scientific claims are startling. They merit critical examination by scholars of science and war. There is historical precedent for being skeptical about the expert conclusions on offer from American military authorities and their public health allies, particularly on matters of cancer that result from toxic exposure. As Robert Proctor has demonstrated for the tobacco industry and as Naomi Oreskes has shown for a broad range of other industrial and political actors, there is considerable profit and power in manufacturing doubt and ignorance.¹¹

NOTES

¹ For a more sustained argument about America's long war in the Middle East, see Toby Craig Jones, "America, Oil, and War in the Middle East," *Journal of American History* 99 (2012): 208–18.

²See Joy Gordon, *Invisible War: The United States and the Iraq Sanctions* (Cambridge, Mass.: Harvard University Press, 2010).

³For more on the human and environmental costs of the Iraq war, see a series of wide-ranging and provocative essays at http://costsofwar.org/iraq-10-years-after-invasion (accessed 17 June 2014).

⁴Omar Dewachi, "The Toxicity of Everyday Survival in Iraq," www.jadaliyya.com/pages/index/13537/ the-toxicity-of-everyday-survival-in-Iraq, 13 August 2013.

⁵M. Al-Sabbak et al., "Metal Contamination and the Epidemic of Congenital Birth Defects in Iraqi Cities," *Bulletin of Environmental Contamination and Toxicology* 89 (2012): 937–44.

⁶Scott Peterson, "Depleted Uranium Haunts Kosovo and Iraq," Middle East Report 215, vol. 30 (2000).

⁷This claim is made by the U.S. Department of Veterans Affairs; see http://www.publichealth.va.gov/ exposures/depleted_uranium/ (accessed 17 June 2014).

⁸The WHO explained that "Since the issue of associating CBD with exposure to depleted uranium has not been included in the scope of this particular study, establishing a link between the CBD prevalence and exposure to depleted uranium would require further research by competent agencies/institutions." See http://www.emro.who.int/irq/iraq-infocus/faq-congenital-birth-defect-study.html (accessed 18 June 2014).

⁹For a sample of international skepticism on DU's toxic impact, see *Radiological Conditions in Selected Areas of Southern Iraq with Residues of Depleted Uranium*, IAEA, Austria, June 2010; The Royal Society, *The Health Effects of Depleted Uranium Munitions*, Document 6/02, March 2002; and Wim Zwijnenburg, *In a State of Uncertainty: Impact and Implications of the Use of Depleted Uranium in Iraq* (Utrecht: IKV Pax Christi, 2013).

¹⁰Layth Mula-Hussain, "Cancer in Iraq: The Dilemma Continues," 31 May 2014, http://am.asco. org/cancer-iraq-dilemma-continues.

¹¹Robert Proctor, Golden Holocaust: Origins of the Cigarette Catastrophe and the Case for Abolition (Berkeley, Calif.: University of California Press, 2012); Naomi Oreskes and Erik M. Conway, Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming (New York: Bloomsbury, 2010).