Walker shows so deftly, it also gave them the excuse to belittle and castigate others. We see how physiognomy and phrenology were used to justify the genocide of Indigenous people – particularly during the Second Seminole War, where Native remains were purposefully desecrated and stolen for placement in phrenological museums – and to deny voting rights to white women and Black women and men. The racist, classist and sexist beliefs that had long been a part of the United States' intellectual and cultural landscape were given new power through physiognomy and phrenology.

The book hits its stride in the brilliant Chapter 4, 'The manly brow movement', which shows how popular science influenced popular fashion. The distinctive women's hairstyles so popular in the 1830s and 1840s, with hair parted severely down the centre of the head and also from ear to ear, pulled tightly to the skull, and looped around the bottom of the purposefully exposed ears – a style worn by Queen Victoria, Margaret Fuller, Marie Anna of Bavaria and many others – was designed to draw attention to the wide, high, exposed brow and reinforced phrenological beliefs about intelligence and the human forehead. When women wore these literally highbrow styles, they were praised for their intellect and sensitivity. And, as Walker demonstrates, many women worked to achieve these characteristics not just through styling, but through strategic use of depilatories, waxing, shaving and plucking, with often dire results. This type of analysis, in which insights from the history of science are brought to bear on studies of gender, sexuality, beauty and popular culture, is a true highlight of the book.

The final two chapters, on 'Criminal minds' and 'Facing race', are equally well conceived. Walker argues that popular adoption of physiognomy and phrenology, particularly by white, first-wave feminists and Black intellectuals, was illustrative of the ways in which these flexible, perplexing sciences could work. Striving to show how people could be 'improved' by hard work, education and political voice, these women and men used physiognomy and phrenology to argue that education could provoke osteological changes in the skulls of children. The very things that made physiognomy and phrenology ambiguous also made them adaptable, accessible and accommodating. Black writers in particular seized upon this, using facial analysis to prove their deserved place in American society. As Walker shows so convincingly, while physiognomy and phrenology were repeatedly and habitually used to privilege white, elite masculinity, the disciplines were also employed, strategically and purposefully, by the very people they often denigrated. This is precisely the kind of contradiction that so frequently shaped and marked the early Americas.

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Ran Zwigenberg, Nuclear Minds: Cold War Psychological Science and the Bombings of Hiroshima and Nagasaki

Chicago: The University of Chicago Press, 2023. Pp. 304. ISBN 978-0-226-82676-9. \$35.00 (paperback).

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Today, the concept of 'trauma' might be used colloquially to describe a spectrum of suffering from extreme anguish to mild inconvenience. Yet the ubiquity of trauma, and its use in civilian contexts, is of recent origin: it was not until 1980 that post-traumatic stress disorder (PTSD) – the psychological legacy of trauma – was categorized by Euro-American psychiatrists as an official complaint. Ran Zwigenberg's *Nuclear Minds: Cold War Psychological Science and the Bombings of Hiroshima and Nagasaki* takes the up the 'prehistory' of trauma in the relatively unstudied decades of the 1950s and 1960s, before the present vocabulary existed. In Zwigenberg's account, the sites of the first (and only) nuclear attacks in global history formed a crucible for the articulation of trauma as a psychological category. The process, as it turns out, was neither straightforward nor speedy.

A work of Japanese history, the book compares the efforts of Japanese and American psychiatrists, psychologists and others to address the lasting impacts of the bombs. Immediately following Japan's defeat in 1945, the United States Strategic Bombing Survey (USSBS) dispatched social scientists to Hiroshima and Nagasaki to assess the views of survivors (hibakusha). Perceiving the nuclear bomb as a psychological weapon, they sought to understand how it shattered Japanese mental defences and to probe the links among individual damage, national morale and public panic. In the context of the burgeoning Cold War, they hoped to extract lessons for training the US home front to withstand a potential nuclear catastrophe. In prioritizing the issue of preparedness, the experiences of survivors were 'silenced and contextualized away' (p. 49) and the cultural particularities of Japan were de-emphasized. Yet, as Zwigenberg argues, USSBS research was a necessary first step towards a more expansive and humanistic assessment of the psychological impact of war. In fact, alongside their research into morale and panic, many mid-century practitioners of the psychological sciences also saw themselves as ambassadors for peace. Stepping into a new role as social commentators, they characterized the atomic bomb as a deadly symptom of a wider disease suffered by modern humankind - a condition they felt uniquely empowered to treat. As Abraham Maslow, one of the most renowned psychologists of the mid-twentieth century, declared, 'The world will be saved by psychologists ... or else it will not be saved at all' (p. 75).

Following in the footsteps of the USSBS, the Atomic Bomb Casualty Commission (ABCC), founded in late 1946, brought US social scientists to Hiroshima and Nagasaki. ABCC research played an important diplomatic and ideological role in both Japan and the United States, soothing fears of radiation and its purported effects (sterility, deformed babies and so on). Although the ABCC engaged with *hibakusha*, it too largely overlooked their mental state. Zwigenberg particularly spotlights the contributions of Y. Scott Matsumoto, a Nisei sociologist who began his career by studying Japanese and Japanese American prisoners in wartime internment camps in the US West. Matsumoto worked under the direction (and sometimes exploitation) of Alexander Leighton, himself a pioneer of morale studies as a chief of the Foreign Morale Analysis Division of the Office of War Information in the early 1940s.

Matsumoto served (in life as in this book) as a bridge between American and Japanese researchers. During the Second World War, Japanese psychologists and practitioners of allied disciplines devoted little attention to the mental health of soldiers or civilians experiencing distress on the home front. After 1945, through the years of the US occupation of Japan and beyond, a common commitment to objectivity – belief in some universal truth, pursued through a defined, rigorous method intended to discipline the individual mind of its perspective and bias – united Japanese and American psychological scientists. Adherence to objectivity led even sympathetic Japanese researchers such as Konuma Masuho and Kubo Yoshitoshi to view *hibakusha* much as their American counterparts did: less as suffering individuals in their own right than as a means to the larger goal of promoting the values of peace and democracy in the new geopolitical order dominated by the United States. In fact, as citizens of a defeated nation whose scientific apparatus was seen as contaminated by the 'irrational' ideologies of militarism and fascism,

Japanese scientists clung to the objectivity paradigm far longer than did their American colleagues, discounting cultural factors and privileging quantitative data even as their nation moved in the direction of a more emotional reckoning with the atomic legacy. Although PTSD entered the Euro-American psychological lexicon thirty-five years after the bombs fell, as late as 2009 the condition had still not yet found legitimacy as a stand-alone diagnosis for *hibakusha*.

For sources, *Nuclear Minds* draws primarily on the records of the USSBS, the ABCC, and other researchers who studied the aftermath of the bombing. Unfortunately, as Zwigenberg notes, medical case files and other documentation in the voices of survivors is currently off limits or lacking. Despite this acknowledged limitation, within the vast scholarship on the atomic bombs the book stands out for its highly original depiction of Hiroshima and Nagasaki as 'ground zero' for the articulation of the concept of trauma, which is applied so widely today. Historians of Japan, medicine and science and technology studies are likely to find it an enlightening and even moving read.

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Efran Sera-Shriar, Psychic Investigators: Anthropology, Modern Spiritualism, and Credible Witnessing in the Late Victorian Age

Pittsburgh: University of Pittsburgh Press, 2022. Pp. 236. ISBN 978-0-8229-4707-3. \$50.00 (hardcover).

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Sera-Shriar has made an important contribution to the intertwined history of Victorian anthropology and the 'golden age' of modern spiritualism between 1865 and 1917. The author draws from the perspective of micro-history to both provide a more balanced functionalist historical narrative (focusing on what scientists actually do, instead of on models and theories in science), and speak to large issues, although addressing small case studies. Sera-Shriar selected four anthropologists as key case studies, representing the broadest range of different convictions about spiritualism and psychic research, including 'The believer' (chapter 1), 'The sceptic' (Chapter 2), 'The revisionist' (Chapter 3) and 'The disbeliever' (Chapter 4), and analysed their key texts, respectively Alfred Russel Wallace's (1823–1913) *Miracles and Modern Spiritualism* (1875), Edward Burnett Tylor's (1832–1917) notebook written in London in November 1872, Andrew Lang's (1844–1912) *Cock Lane and Common Sense* (1894) and Edward Clodd's (1840–1930) *The Question: A Brief History and Examination of Modern Spiritualism* (1917).

At the core of the book's argument is the question of how to evaluate what count as parameters for the reliability of sources and the credibility of witnesses. The author approaches this question by extending conceptual frameworks from other authors, such as Daniela Bleichmar's 'visual epistemologies', and Lorraine Daston and Peter Galison's 'collective empiricism' and 'epistemic virtues'. As a consequence, unlike most of the