

**Book Review: Sharon Ghamari-Tabrizi, *The Worlds of Herman Kahn: The Intuitive Science of Thermonuclear War* (Cambridge MA: Harvard University Press, 2005).**

In *The Worlds of Herman Kahn*, historian Sharon Ghamari-Tabrizi creates an immersive narrative focused on the life of the American Cold War author, intellectual, analyst, and physicist Herman Kahn, perhaps best known for supposedly inspiring the title character in Stanley Kubrick's film *Dr. Strangelove*. Although *The Worlds of Herman Kahn* centres on the life of Herman Kahn, the book is not strictly a biography. Ghamari-Tabrizi accomplishes more than merely describing the life story of a single individual – she is able to convey the impact of Kahn in the policy planning world where he has been best known as well as the greater historical impact of the Cold War and science in 1950s and 1960s American society. Perhaps most impressive, she is able to balance a technical history of futurology, game planning, and nuclear warfare with insight into American popular culture and counter-culture. On the whole, her book will appeal to historians interested in culture, science, and politics, as well as a greater mass audience interested in American Cold War history.

Ghamari-Tabrizi follows Kahn's life as he transitioned from a maths teacher in the military, to a graduate student of physics, to a policy analyst at RAND, to the infamous author of *On Thermonuclear War* (OTW), and finally to founder of the Hudson Institute think tank. Throughout this narrative, she intersperses chapters, such as the fourth one titled 'An Operation But Undetected Capability,' that expand on the themes emerging from Kahn's life by looking at the impact of Cold War and science on American society. Methodologically, she seamlessly weaves in oral histories of Kahn's acquaintances and friends. In one particularly memorable example, Ghamari-Tabrizi relays through an interview with Kahn's best friend, Sam Cohen, that Kahn had pored 'through every IQ test he could find' in preparation for the army mental aptitude test, thus enabling him to finish the test in 30 minutes. But minutes after exiting the testing room he realized he had made an arithmetic error and stormed back in, 'furious with himself' stating 'How can I be so stupid?'<sup>1</sup> These anecdotes bring to life Kahn's many eccentricities, a distinguishing characteristic of Kahn that adds to the richness of this narrative.

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<sup>1</sup> Sharon Ghamari-Tabrizi, *The Worlds of Herman Kahn: The Intuitive Science of Thermonuclear War* (Cambridge MA, 2005), p. 62.

Ghamari-Tabrizi also captures the scientific obsession of the 1950s that drove Kahn and his colleagues. The postwar era witnessed a convergence between the national security need for understanding the implications of a nuclear armed showdown and the rising visibility of science during World War II with the Manhattan Project and the atomic bomb. The elevation of the hard and social sciences and a new respect among a new generation of policy planners gave way to think tanks like RAND (Research AND Development), which originally began as an Air Force research institute. Kahn's employment there coincided with developments in intelligence analysis, State Department planning, and military adoption of scientific methods. Naturally this did not occur without a clash of ideologies and cultures between the scientists and analysts like Kahn, who fashioned themselves the 'Cold War avant garde', and Air Force brass, comprised of World War II bombing campaign veterans.<sup>2</sup> Ghamari-Tabrizi argues convincingly that the fusion of science and military policy employed by RAND analysts were more than technical processes, but 'a style, a mood, and an aesthetic.'<sup>3</sup> She clarifies this with her Monte Carlo and systems analysis explication.

Kahn's involvement with Monte Carlo simulations and systems analysis exemplified the rise of quantitative analysis and futurology in policy planning. Ghamari-Tabrizi explains how the Monte Carlo, which originated as a model for predicting life histories of neutrons for thermonuclear weapons, was adopted and expanded into a new field of futurology at RAND.<sup>4</sup> But she also conveys the difficulty experienced by Kahn and others in attempting to translate possible future war scenarios into data points, variables, and formulae. One systems analyst argued for basing his system on a 'matrix of quantifiable phenomena such as damage and target coverage coordinated with different budgets for weapons delivery', while another included 'political, economic, and psychological factors'.<sup>5</sup> Not surprisingly, Ghamari-Tabrizi concludes the eventual models used by Kahn and his colleagues became increasingly like 'science fiction' as their designers made subjective and usually arbitrary decisions in forging their models. She argues futurology was aesthetic and technical – it was as much an art as it was a science.<sup>6</sup> As a

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2 Ibid., p. 128.

3 Ibid., p. 126.

4 Ibid., pp. 133-134, 137.

5 Ibid., p. 137.

6 Ibid., p. 140.

historian, she succeeds in making the technical details and theory behind futurology accessible for the reader while at the same time contextualizing the historical emergence of futurology.

Of course, the Cold War extended beyond the halls of RAND in Santa Monica, and Ghamari-Tabrizi captures this essence of Cold War mentality. Aside from the wonderful selected pieces of pop culture Ghamari-Tabrizi chose, including a satirical cartoon on teenage girls and national security concerns from *Mad Magazine*, she also delves deeply into how the consequences of potential thermonuclear war affected everyday life.<sup>7</sup> She explores this through civilian defence, such as planning for the survival of civilization in the case of a thermonuclear war, and the Ground Observer Corps (GOC), which assembled volunteers to spot potential Soviet aircraft flying under radar to deliver nuclear bombs. The GOC chapter is especially compelling as Ghamari-Tabrizi is able to convey the zeal of the volunteers that stemmed from a determination to contribute to the war effort and a feeling of helplessness that contributed to a fearful anxiety. She quotes one volunteer's remarks that 'I haven't forgotten how frightened we were in Bremerton [Washington] at the time of Pearl Harbor'.<sup>8</sup>

These episodes, although seemingly only tangential to Herman Kahn, are necessary to understand the critical reception Kahn's book, *OTW*, received from the American public. As Ghamari-Tabrizi argues, the popular criticism for *OTW* from outside the world of RAND stemmed from incredulity at its scientifically driven, inhuman detachment in detailing the doomsday scenarios and, more shockingly, the end-all strategies Kahn suggested as deterrents for thermonuclear war.<sup>9</sup> But *OTW* was not merely the writings of a 'mad scientist in an old horror movie', as one observer called Kahn.<sup>10</sup> Ghamari-Tabrizi argues that Kahn represented a modernist worldview that was unafraid to acknowledge 'future problems' and tackle them with scientific fervour. Kahn himself was unapologetic and implied that Americans who expressed anger over *OTW* were engaged in 'wishful thinking'.<sup>11</sup> 'Kahn embodied a recognizable strain of American optimism – brisk, liberal, masculine, and nonchalant. He believed that power was self-actuated, that man must mobilize his resolve to master history and nature, that science could

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7 Ibid., p. 149.

8 Ibid., p. 100.

9 Ibid., p. 237.

10 Ibid., p. 241.

11 Ibid.

be the instrument of political will'.<sup>12</sup> In those sentences, Ghamari-Tabrizi perfectly captures both Kahn and Cold War America.

*The Worlds of Herman Kahn* enters a historiography on Cold War America that is no longer separated into scientific, cultural, and political realms. In explaining how science became co-opted by political agendas to produce policy-oriented think tanks, Ghamari-Tabrizi bridges the gap between intellectual histories and histories of science on one hand, and political histories on the other. Thus, *The Worlds of Herman Kahn* is reminiscent of historian Nils Gilman's monograph on the rise of modernization theory in American social sciences, and the continuing historiography regarding the application of modernization theory to foreign policy.<sup>13</sup> Ghamari-Tabrizi focuses on the hard sciences rather than social sciences in her book, but beyond this distinguishing factor she also goes one step beyond and engages with cultural history to detail the entry of science into everyday lived experience of Americans during the Cold War. While certainly similar books cover the impact of Cold War on American culture, Ghamari-Tabrizi excels in transitioning so effortlessly from science, politics, and culture and conveying the depth of penetration by science into lived experience.

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12 Ibid., p. 234.

13 N. Gilman, *Mandarins of the Future Modernization Theory in Cold War America* (Baltimore, 2003). M.E. Latham, *Modernization as Ideology: American Social Science and "Nation Building" in the Kennedy Era* (Chapel Hill, NC, 2000).

14 Brief biographical note: James Lin is a doctoral student in history at the University of California, Berkeley. He focuses on international history, especially with regards to 20<sup>th</sup> century United States and China. His current research project examines agricultural development in Taiwan from 1949 to 1972 as an instance of a globalizing practice of applied science research that began with US development aid and culminated with Taiwan pursuing global development and multinational technical cooperation.