

# **Cold War Kitchen**

**Americanization, Technology, and European Users**

**Edited by Ruth Oldenziel and Karin Zachmann**

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## Kitchens as Technology and Politics: An Introduction

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On 24 July 1959, an act of diplomatic high drama thrust the cold war kitchen onto center stage. That summer in Moscow, General Electric's lemon-yellow kitchen provided the unlikely backdrop for the now famous debate between American Vice President Richard M. Nixon and Soviet Premier Nikita S. Khrushchev. As he gestured toward the kitchen exhibit in the American national exhibit at the Moscow fair, Nixon lectured the communist leader on the advantages of living in the United States and, more to the point, of consuming under American-style capitalism. The exchange, later dubbed the "kitchen debate," seemed "more like an event dreamed up by a Hollywood scriptwriter than a confrontation [between] two of the world's leading statesmen," the *New York Times* reported. "It was perhaps the most startling personal international incident since the war," the paper declared.<sup>2</sup>

Why would world leaders invest so much political capital in a discussion of kitchens, refrigerators, and the home? At first glance, modern kitchens may seem to be neither a likely political set piece for diplomacy nor a contender in the engineering race for superior cars, computers, and nuclear missiles. But during the first part of the twentieth century, modernist kitchens were considered technological marvels. In the nineteenth century, only upper-class families had separate basement kitchens that were complete with tables, furnaces, and servant-operated pumps. Most working-class or farming families cooked on a coal or petroleum stove with a side table in the same space where they worked, cooked, and slept. The radical innovation of the twentieth-century urban, modernist kitchen was the creation of a separate space with modular square appliances, a unified look, an unbroken flow of countertops and counter fronts over appliances, and standard measurements. These electrical and mechanical units were set into an integrated, mass-produced ensemble that could only be identified



Never-before published photograph of the famous kitchen debate in Moscow on 24 July 1959 between Soviet Premier Nikita S. Khrushchev and American Vice President Richard M. Nixon. American national exhibition guide Lois Epstein demonstrates how the typical American housewife might use the General Electric combination washer-dryer to the two world leaders. The presence of Epstein in the picture contradicts the main cold war narrative of the kitchen debate as a conversation between men about the ideas of capitalism and communism (the first photo in chapter 3). Nixon's press handlers popularized this interpretation of the visit, which has dominated scholarship ever since. *Source:* Photograph by Howard Sochurek for Time/Life Pictures. With permission of Getty Images.

with discrete buttons. All component parts—from cabinetry to plumbing—matched to create a unified, modernist experience.<sup>3</sup>

Today, the phrase *modern kitchen* sounds normal and does not suggest the radical meaning of what it denotes. For the purposes of this collection, therefore, we define *kitchen* as a complex, technological artifact that ranks with computers, cars, and nuclear missiles. We also claim that the modern kitchen embodies the ideology of the culture to which it belongs. Modernist kitchens are places filled with gadgetry, of course. More to the point, they are assembled into a unified, modular ensemble and connected with the large technological systems that came to define the twentieth century. Electrical grids, gas networks, water systems, and the food chain all come together in the floor plans that connect kitchens to housing, streets, cities, and infrastructures via an intricate web of large technical systems. The

kitchen is thus simultaneously the sum total of artifacts, an integrated ensemble of standardized parts, a node in several large technological systems, and a spatial arrangement. Each of these technological components is shaped by a host of social actors that have built and maintained them. Kitchens are as deeply social as they are political.

The Nixon-Khrushchev kitchen debate demonstrates that artifacts are fused with politics in both small and big ways. Two decades ago, political scientist Langdon Winner famously posited that artifacts do articulate politics. He sought to counter the then fashionable idea that the outcomes of technological developments are inevitable or divorced from society and politics.<sup>4</sup> He argued instead that artifacts are the materialized outcomes of the “small” politics of interest groups. The kitchen debate also offers an example of the *technopolitics* (to cite the notion coined by historian of technology Gabrielle Hecht) of how “big” politics can mobilize artifacts. In the cold war, politicians strategically used kitchens to constitute, embody, and enact their political goals.<sup>5</sup> As Nixon and Khrushchev realized, their kitchen debate cut to the heart of the kinds of technical artifacts and systems that their respective societies would produce. The shape and directions of innovations, politicians well understood, resulted from political choices. Both politicians discussed the kitchen as a technopolitical node that linked the state, the market, and the family. Other cold war statesmen—like Winston Churchill (United Kingdom), Ludwig Erhard (West Germany), and Walter Ulbricht (East Germany)—also considered kitchen appliances as the building blocks for the social contract between citizens and the state.<sup>6</sup> Discussing kitchens and domestic appliances achieved still more. Focusing on the domestic domain helped anchor a traditional gender hierarchy at the very historical juncture when the feminist movement, socialist ideology, and war emergencies had fundamentally challenged conventional women’s roles.<sup>7</sup> The cold war was thus a time in which the kitchen became a heated political arena.

To understand why political leaders came to view kitchens as an important weapon in their diplomatic arsenal, we need to analyze the broader geopolitical context of that debate at the time. The superpower politicians may have disagreed on many issues during the cold war, but they found common diplomatic ground in the idea that science and technology were the true yardsticks of a society’s progress. This shared political framework turned science and technology into a potent battleground. The superpowers were aiming missiles at each other, but the culture arena offered a diplomatic meeting point with science and technology as *lingua franca*. Likewise, international exhibitions presented the superpowers with a common,

if contested, terrain. Both viewed exhibitions as the perfect stage for competing and for comparing their nation's scientific and technological performance. Before World War I, world fairs had been places of international communication and exchange, but in the twentieth century, politicians discovered that they also could serve as ideal stages for political propaganda. The 1959 international exhibits in Moscow and New York were no exception.

In 1958, as part of an East-West cultural exchange, the Soviets agreed to host a U.S. exhibition in Moscow in July 1959. It marked a momentary thaw in the cold war, sandwiched between the 1957 *Sputnik* satellite launch, the 1961 Berlin wall construction, and the 1962 Cuban missile crisis.<sup>8</sup> To reciprocate, Americans would host a Soviet exhibit in New York a few weeks earlier. The Soviet show was held in New York in June 1959 and emphasized the USSR's most advanced and prestigious technologies—such as *Sputnik* satellites, space capsules, heavy machinery, and a model nuclear ice breaker. The fair also displayed fashions, furs, dishes, televisions, and row after row of kitchen appliances like washers and fridges, which were to demonstrate the Soviets' readiness to boost individual consumption. Khrushchev had promised that the Soviet Union would match or even surpass the United States in consumer durables like domestic appliances by 1965 at the end of the seven-year plan he had just announced. His confidence in meeting this ambitious goal rested on the Soviets' spectacular successes in space and military technologies. A nation that could build atomic bombs and launch satellites into orbit around the earth surely would have no problem producing washing machines and TV sets for its citizens.

A few weeks later, in Moscow, the American exhibit foregrounded consumer goods. The Dome, an aluminum geodesic structure that projected the future, housed exhibit panels presenting America's most recent achievements in space research, nuclear research, chemistry, medicine, agriculture, education, and labor productivity. Next door, the Glass Exhibition Hall showcased material goods for home and leisure.<sup>9</sup> The prominence of the Glass Exhibition Hall announced that consumerism was no longer a side show of production and military technologies.<sup>10</sup> Collaborating at full throttle, the U.S. government and American corporations mounted an exhibition that displayed American automobiles, Pepsi carbonated beverages, and the latest voting machines. Also featured were at least three fully equipped kitchens, including a futuristic RCA Whirlpool "miracle kitchen," which required women only to push buttons to run it, and a labor-saving General Mills kitchen that emphasized frozen foods and other convenience comestibles. The real highlight, though, was General Electric's lemon-yellow



At the Soviet trade and cultural exhibition in New York in June 1959, refrigerators were exhibited next to space capsules, heavy machinery, and agricultural equipment to showcase Soviet prowess in mass-production capabilities and to show that the USSR could turn out rockets as easily as household appliances. In contrast to the American exhibit at the Moscow fair, few if any images are available of the Soviet exhibit in New York; a 1958 issue of the public-relations magazine *Sowjetunion* did feature modern house planning, design, and household appliances like the refrigerator presented here as a socialist future just around the corner. *Source: Sowjetunion* 99 (1958): 9.



Two years prior to the American exhibit in Moscow in 1959, the RCA/Whirlpool Miracle Kitchen was sent on a European tour starting in Milan at the request of the U.S. Department of Commerce. *Source:* Courtesy of Whirlpool Corporation.

kitchen, which was located in a full-scale, ranch-style American house. It was this kitchen that succeeded in acquiring iconic status. On the eve of the 1959 exhibit, however, its success as a symbol of American public relations was in no way ensured. The American displays were put together hastily and in anxious response to the Soviets' popular appeal that all social classes should have access to technology's progress. Indeed, the U.S. publicity campaign insisted that the American model house also represented an "average" home that was available to all Americans. If for American officials, the success of the Moscow exhibit marked a milestone in their cold war struggle, to the Soviets, the American public relations declaration of victory symbolized that the United States had changed the rule of the superpower game of what "real" technology meant. According to American boosters, from then on, technology was to be measured in terms of consumer goods rather than space and nuclear technologies.



In their public-relations game, the Americans caught the communist regime off guard. On the eve of the exhibit, Khrushchev had good reason for displaying an ebullient confidence in the Soviets' technological prowess. A mere two years earlier, in 1957, the Soviets had blown America's self-confidence with the launch of the space satellite *Sputnik*. That event would motivate Americans to create the National Aeronautics and Space Administration (NASA), established on 29 July 1958, and to increase spectacularly U.S. government spending on scientific research and technical education.

No wonder that the American way of defining *technological advancement* in consumer terms in their public relations exasperated the Soviets. For the Soviets, the emphasis on individual consumer goods, moreover, was a moot rhetorical point. Soviet leaders were dedicated to technological systems that would be accessible to and affordable for all citizens. The regime invested, for example, in buses, trains, and taxis instead of privately owned cars.<sup>11</sup> During the Khrushchev era, the state initiated housing programs that were designed to solve housing and labor shortages by combining a flat for the nuclear family with collective consumer facilities such as child-care centers and public laundries.<sup>12</sup>

During the late 1950s, Soviet leaders may have felt pressured into allowing some private consumption to shore up their authority, but in terms of economic policy, the Soviets focused their efforts first and foremost on rebuilding production capacity rather than on encouraging individual consumption. Such policy priorities were not limited to the communist countries. Even most (Western) European policy makers—including the British, Dutch, and Swedish—focused on reigniting heavy industry rather than on stoking the fires of consumption.<sup>13</sup> Indeed, all postwar societies in Europe had to cope with massive housing shortages that lasted well into the 1960s. Government reconstruction planning therefore favored apartment houses—which were built with prefabricated concrete slabs in standardized modules and resembled socialized forms of housing—rather than the detached homes that symbolized individual consumption. Facing similar problems, European governments—in both East and West—decided on technical solutions that generated housing and kitchens that bore striking resemblances on both sides of the iron curtain. Through its Marshall Plan, however, the United States pushed for (not always successfully) a European economy based on an order of the New Deal-Fordist-Marshall Plan that encouraged individual patterns of (mass) consumption and that would serve both an expanding market for American and West European business

and a bulwark against the Soviet bloc for American foreign relations strategists.<sup>14</sup>

Kitchens were one target in this strategy. The American vice president's well-planned kitchen debate with party leader Nikita Khrushchev in Moscow in front of the GE kitchen was thus a calculated choice on Nixon's part. The kitchen debate appeared to be—and so it has been canonized in American historical writing—a fundamental controversy between the two superpowers of the cold war. On closer inspection, the kitchen debate looks more like a transatlantic clash between American corporate and European welfare-state visions of technological development. The American press and subsequent scholarship may have declared that Nixon won the propaganda game, but Khrushchev's ideas turned out to be closer to European design choices and technological trajectories than Nixon's. At a time when the United States faced a profound identity crisis, Nixon's campaign also sought to address the home front, where the American wonder kitchens that were showcased in Moscow shaped America's postwar identity based on mass-scale consumption.<sup>15</sup>

Nixon was not the first to choose the kitchen as an ideal battleground. A range of social actors—from manufacturers and modernist architects to housing reformers and feminists—have turned the kitchen floor into their platform for debating the ideal future.<sup>16</sup> When the bonds of traditional communities ruptured and the nuclear family advanced to the basic structure of the social order, the kitchen became a main stage for performing it. Here family meals were produced that structured the nuclear family through the daily ritual of the shared meal.<sup>17</sup> In the early twentieth century, the kitchen represented a bellwether for a host of new technological developments. Domestic reformers had started to shift their attention to the kitchen as their working terrain and area of expertise during the 1910s. In an earlier century, the parlor had been domestic reformers' iconographic center, but in the twentieth century, the kitchen became the stage where social actors performed a domesticity that was articulated in explicitly technical terms.<sup>18</sup> Producers began to discover the enormous marketing potential that the kitchen and the domestic domain commanded. When manufacturers felt they had exhausted the innovation possibilities of the production systems to push their products, they started to explore consumption sites. They tinkered with the laws of demand rather than supply. For the first time, they began to focus on women as potential consumers. During the 1930s Depression, in particular, kitchens, food, and houses served as welcome tools in manufacturers' strategy to pry open market niches for new products. Modernist architects, too, began to map and

design kitchens as the most suitable site for elaborating on their modernist vocabulary and ideals.

For many social actors, the kitchen figured both as symbol and as material fact of modernism and of technology. To discuss the kitchen was to discuss the technological innovations and promises of the twentieth century. To evoke these innovations in model kitchens was to make technological promises in visually familiar terms that were suitable for public consumption. The debate took place in an era in which most people felt that novel technologies such as the atomic bomb threatened the routines of their daily lives or could even be lethal.<sup>19</sup> The 1957 atom exhibition at Amsterdam's Schiphol Airport is a case in point. Dutch exhibit organizers mounted a General Motors Kitchen of Tomorrow to mobilize public



Press release staging Mrs. Housewife in the RCA/Whirlpool Miracle Kitchen, which was originally the company's research and development testing kitchen and had an automatic kitchen-floor cleaner and an electronic oven. RCA/Whirlpool promised housewives that they could prepare a steak in minutes and muffins in 35 seconds. This kitchen—one of four demonstration kitchens that corporate America showed at the American exhibition in Moscow in July 1959—evoked the ire of Khrushchev when he questioned its hyped technological promises: "They have no useful purpose. They are merely gadgets." *Source:* Courtesy of Whirlpool Corporation.

support for nuclear energy. In pairing a nuclear reactor with a kitchen of tomorrow, the organizers effectively sought to “domesticate” nuclear technology into familiar categories.<sup>20</sup> Kitchens were places for cooking and cleaning. They also served as models of technological change, as metaphors for modernism, and as microcosms of new consumer regimes of the twentieth century. The well-equipped kitchen was a key modernist indicator for society’s civilization in the twentieth century.

### Users in Historical Context

For sociologists and historians of technology, the kitchen provides a promising new research site. It offers a rich unit of analysis for understanding the biography of an artifact and its many dimensions—political, cultural, economic, and ecological.<sup>21</sup> We argue that for studies in the history and sociology of technology, kitchens deserve as much scholarly attention as cars, computers, and satellite systems. The kitchen also serves as an ideal entry point for understanding how users have mattered in the shaping of technological change.

*Cold War Kitchen* seeks to examine how a host of social actors constructed, mediated, and domesticated innovations on the kitchen floor. As the distance between producers and consumers widened during the twentieth century, new kinds of professionals invented knowledge domains to close the gap between the demands of producers and consumers. The home became the site where that gap was most acute. Male politicians, manufacturers, and designers experienced the domestic domain as a virtually unknown territory that needed to be mapped and conquered from a functionalist point of view. Women users and user-representative organizations, in turn, felt increasingly encouraged to intervene and advise producers and other suppliers about users’ needs and desires as determinants of future demand.

We may call these sites *mediation junctions* in a corollary to Ruth Schwartz Cowan’s proposal that understanding the consumption junctions matter in shaping technological developments.<sup>22</sup> Cowan was the first to argue that the success or failure of artifacts and technical systems depended, both practically and analytically, on the producer’s and consumer’s points of view. She defined the consumption junction as “the place and time at which the consumer makes choices between competing technologies,” and she urged scholars to turn their attention to the active roles that users and consumers play in the development and diffusion of products. This perspective, she argues, is vital to enabling scholars to assess why some

technologies succeed while others fail.<sup>23</sup> She challenged the notion that American housewives were “slow” in adopting technically superior stoves and washing machines, clinging instead to the open hearth and wringers. Historians’ focus on the community of engineers, designers, and industrialists had prevented them from offering a satisfactory explanation. All they did was assign blame to housewives as irrational consumers, she argued.

Building on Cowan’s insights, historian Joy Parr, for example, was able to show why automatic washing machines—which washed, rinsed, and spun clothes without human intervention—failed to become a commercial success in Canada during the 1950s. What the manufacturers missed, Parr argues, was that Canadian consumers judged the machines in terms of how they fitted into the technological system of the home, choosing controlled water usage over automatic rinses and assessing their hard labor in terms of personal pride.<sup>24</sup> Cowan, Parr, and others thus demonstrated the severe methodological limitations of focusing on designers, engineers, and producers. These historians of technology also pointed to the shortcomings of explaining a technology’s success or failure based on its “intrinsic” qualities or the “irrational” choices of consumers.

Sociologists, too, have enriched science and technology studies greatly by showing that social groups matter in producing artifacts and knowledge. Cynthia Cockburn and Susan Ormrod have mapped the many constituencies that were important in shaping the microwave oven’s life trajectory from the design office through the factory to the household.<sup>25</sup> Their study serves as an example of how scholars may fruitfully follow an artifact’s life cycle to flesh out the construction of technologies and their social embedding.<sup>26</sup> Recent studies have also focused on a host of social actors who were responsible for mediating between designer and consumer communities. The analysis of their process of mediation provided not only an entrance for politicians to implement their visions of the properly equipped domestic sphere. A focus on the mediation process, moreover, demonstrates how the mutual articulation and alignment of product characteristics and user requirements is shaped. Through such articulation and alignment, products’ characteristics, use, and users are defined, constructed, and linked. Specialized mediators and institutions—including voluntary consumer groups, professional home economists, governmental policy makers, and corporate advertising agencies—helped shape this mediation process.<sup>27</sup>

*Cold War Kitchen* grounds the mediation junction in the historically specific context of Europe in the twentieth century, when the welfare state emerged as a major actor in the making of modern technologies, including kitchens and housing. The collection assesses critically the transfer of the

American kitchen from the United States to various European countries and vice versa. The book's authors focus on the many social and institutional actors that were involved in the process of appropriation, subversion, and rejection. Nixon and his dutiful chroniclers indeed declared victory for America, but that success was more graphic than concrete, as the essays suggest. This collection of essays addresses a number of pressing questions about technological trajectories in the context of the transatlantic geopolitics and the cold war era. It seeks to assess technological choices without reverting to simple neoliberal notions of individual choice in free-market economic arrangements to understand the mediation practices in Europe at the time. What types of social institutions were involved? Moreover, what kind of expertise and knowledge did the process generate?

We argue that authority, expertise, and representation were vulnerable to contestation in such mediation processes. Both in response to and independent of America's market empire—to use Victoria de Grazia's notion of the era—we find specific European mediation practices in the realm of civil society, in the domain of the state, in the economic arena, and in the multiple intersections among them.<sup>28</sup> Given that mediation processes are the outcome of power relations that changed in nature and quantity over time, the question of who leads, speaks, and negotiates in this mediation process is the key issue for historians and sociologists of science and technology as well as for researchers in cultural, media, and communication studies.<sup>29</sup> In recent literature on the politics of consumption in Europe, scholars suggest how we might approach the issue of power in these mediation arrangements and point to the specific European contexts of these processes.<sup>30</sup> We add critical notes to Cowan's notion of the consumption junction in the making of technological change. In fact, the studies in this book show how important the state has been—in both the Eastern and Western European countries—in shaping the kitchen. In most European countries, kitchen construction was embedded in state housing policy. This questions Nixon's—and for that matter scholars'—exclusive focus on the gadgets and the market in the kitchen debate.

The contributors to this volume also challenge politicians' practice of framing users as individual and passive consumers who are ever ready to purchase novel goods. Nixon and Khrushchev claimed to speak for the consumer—and for women's liberation, in particular—but they bypassed altogether actual consumer practices, feminist emancipation, and social movements. Politicians cast consumers mainly as citizens whom they needed to bind to their body politic. In contrast to Nixon and Khrushchev's

frame of reference, we introduce consumers as users of technological change in a particular political context. We also offer insights into how users sought to participate actively in the making of technological systems such as the built environment.<sup>31</sup> Elaborating on Cowan's insight, sociologists of technology Nelly Oudshoorn and Trevor Pinch have shown in their book that users matter in constructing technologies. Such construction involves multiple users. From the invention of a product to its disposal, users are actors in technology's performance. They are simultaneously configured, projected, and represented in the construction and mediation process, while actual users may actively engage or reject the technologies they use.<sup>32</sup> In the case of the kitchen, a host of actors at the mediation junction, each with an individual frame of meaning, projected many ideal types of users that were inscribed in the construction of the modern kitchen.<sup>33</sup>

Middle-class social reformers and the state, for example, promoted the hardworking full-time housewife paired with a male breadwinner. In this configuration, the housewife used appliances as convenient tools to ease her domestic burdens, thus benefiting the whole family. Socialists and architects configured the emancipated modern woman as a user who was keen on applying Taylorist principles to domestic tasks to allow her to work outside the home for wages. This housewife was supposed to pay more attention to the kitchen's layout and efficient organization than to the plethora of appliances available on the market. This modernist script for the kitchen was nothing short of lean, clean, and stripped down. Finally, corporations and engineers constructed the hedonistic and enchanted housewife who dreamed of buying kitchen gadgets as an end in itself. In scripting the hedonistic housewife in their designs, corporations sought to create new and expanding markets for their products. Their corporate-inspired kitchens were gadget-filled affairs.

The concept of scripts that anthropologist Madeleine Akrich developed in elaborating on actor-network theory is most useful in analyzing the inscribed role model of user in artifacts like the kitchen, whether the middle-class housewife, the emancipated modern woman, or the hedonistic suburban beauty. We can build here on Akrich's notion that, "like a film script, technical objects define a framework of action together with the actors and the space in which they are supposed to act."<sup>34</sup> In doing so, the attention shifts from consumption to production. The concept of script implies only a projected user who is imagined by the designer of the artifact in question. A similar perspective is taken by Steve Woolgar, with his concept of the configured user.<sup>35</sup> The case studies in this collection, however, explore the projected or configured users of kitchens not just as the

brainchild of engineers but also as the imagination of politicians and furthermore of a whole array of mediators who claim to speak on behalf of user communities.

As they appropriated and domesticated household technology, real users rarely lived up to such projections or configurations.<sup>36</sup> Users intervened directly and indirectly in the designing process. User spokespersons advised architects, designers, and state officials on behalf of housewives to ensure that housewives' practices—rather than modernist aesthetics—were inscribed in the design. User residents also subverted and tinkered with the modern kitchen layouts they encountered as they moved into their new apartments. To the horror of modernist designers, users tried to squeeze in the dining tables and beds that modernist ideology had banished, to erase the functionalist inscription of the separation between living and eating by razing kitchen walls, and to fill their lean-and-clean and efficiency-inscribed work spaces with knickknacks.<sup>37</sup>

For half a century or so from the 1910s to the late 1960s, users as a social group entered the design configuration in an organized fashion.<sup>38</sup> In several European countries, housewives and their advocates were able to gain access to the consumption junction and were sanctioned as important spokespersons for several reasons. Early on, housewives' organizations positioned themselves as the prime domestic experts in the new design configurations that developed as part of the twentieth century's large, emerging technological systems.<sup>39</sup> Producers such as electricity and gas utilities and housing corporations came to realize that household technologies had to cross a gender border on their way from male construction to female use. Utilities, housing associations, and food manufacturers began to rely on women experts in domestic sciences and home economics to fill their knowledge gap between design and actual use. Other social actors also sought out women as a user group of their new technological systems. When many nation states began to consider it their responsibility to provide their citizens with adequate housing, governments took that responsibility by enacting far-reaching laws rather than encouraging private-sector responsibility. The Dutch housing law of 1901 and the German Weimar constitution of 1919 stipulated this responsibility explicitly. In these changed political and legal frames, women representatives were able to have a hand in the blueprints of housing policy. Their interwar initiatives and influence received an even bigger boost after World War II, when nation states mobilized housing programs to address severe housing shortages in war-damaged Europe. A temporary alliance between women's organizations and nation states emerged in many countries. On both sides



of the iron curtain, the ideology of the nuclear family and domesticity became a favorite political vehicle for forging national identity. This opened many windows of opportunity for women's interventions in the design and construction of domestic spaces.<sup>40</sup>

In several countries, however, the collaboration between women's organizations and the nation state ended in the late 1960s. The U.S.-style corporate consumerism that the Marshall Plan's policy makers advocated favored individual consumer choice rather than centralized planning for postwar Europe. This new gospel banished the voice of housewives from government councils. Without a government-sanctioned voice, housewives were left with the self-appointed spokespeople in the commercial sector to represent them. The shift relegated women's participation in consumer politics to the market.<sup>41</sup> Moreover, the emerging ethos of—male-sanctioned—professionalization and the development of new areas of expertise in the mediation process often meant that male experts moved into women's place. It effectively marginalized women—both lay and professional experts—who had been successful in forging the mediation junction during the early part of the twentieth century. Finally, women's experience-based knowledge was increasingly formalized and inscribed in the appliances—a process that went hand in hand with what Weingart has called “the trivialization of technology.”<sup>42</sup> It rendered women advisers obsolete as the principle negotiators of technology's uses. This demise of a user-friendly moment in the history of the shaping of novel technologies makes us aware that Cowan's consumption junction presiding over the shaping of technological systems is a historically and geographically contingent space of negotiation in need of further exploration.

Through the lens of the modern kitchen, the authors of this book examine the political stakes in the kitchen. The contributors map the struggle over the kitchen as an ideological construct and a material practice in the twentieth century. By taking into account both ideology and practice, the scholars go beyond policy statements, advertisements, and architectural drawings to examine the many relevant social actors in the making of this new technological artifact. The book looks at the numerous variations on the American kitchen (the General Motors, General Electric, and Cornell model kitchens) and the many institutional actors that were involved with them. In her chapter, Oldenziel explores how these American kitchens were exported to Europe. The collection focuses on how European user groups adopted, rejected, and renegotiated the American kitchen in European contexts. Contributors examine existing European modernist traditions—in particular, Margarete Schutte-Lihotzky's famous Frankfurt

kitchen—to see how several social actors renegotiated the diversity of European kitchens in the cold war contest.

Drawing on historical records from various countries, the contributors consider a number of relevant social actors in the shaping of modern European kitchens. They include actors from civil society, the state, and the market. First, there were the consumers and users who were represented by housing associations, housing officials, consumer organizations, women's voluntary organizations, women magazine editors, husbands who were sold on any kind of modern technology, do-it-yourself tinkerers, and respondents to public-opinion surveys. Second, new professionals claimed the kitchen as their own knowledge domain. These new professionals included designers, architects, engineers, housing inspectors, home economists, social scientists, standards-of-living theorists, housing association officials, nutritionists, medical doctors, hygienists, and standardization advocates.<sup>43</sup> Third, governmental agencies played an important part in the shaping of the kitchen, particularly after World War II. This category included party officials, local politicians, government agencies, Marshall Plan planners, and their European Union associates. Fourth, businesses such as utilities, household-appliance retailers, small firms, multinational corporations, and patentees had an important stake in developing kitchens as a new market niche. Finally, opinion leaders like women's magazine editors, newspaper, trade journalists, architectural critics, and government propagandists profoundly shaped the debate about the modern meanings of the kitchen.

The book focuses on several aspects of the kitchen debate. After discussing some of the historiographical issues at stake in the first part, the contributors offer a close analysis of the Nixon-Khrushchev encounter itself from both sides of the Atlantic in the second part. They then consider the European counternarratives in the third part. The last two sections are devoted to how the American kitchen was appropriated and contested in the process of the transatlantic transfer. Also examined are the larger implications of these contestations.

### **Contributing Essays**

Historians and sociologists of technology have long recognized the importance of international trade and cultural fairs. Fairs acted as popular displays of technological innovation. They also served as international platforms for the exchange of engineering knowledge and as places where ordinary people learned how to consume and appropriate novelties. In the years

before motion pictures, radio, and television, people visited nineteenth-century world fairs to sample and experience the world. International fairs were the workshops of the world, rituals of display, and sites of competition among nations. During the twentieth century, trade fairs also served as governmental propaganda tools that showed off a nation's technological progress. Fairs also domesticated the latest innovations by presenting them in familiar terms.

During the years of fierce superpower competition, the American government and its corporations used kitchens as an iconographic center to advance the country's market empire to Europe.<sup>44</sup> In part I of this collection, *Staging the Kitchen Debate: Nixon and Khrushchev, 1949 to 1959* (chapters 2 to 6), contributors show how fairs served as a major propaganda platform. American officials may have proclaimed the 1959 American national exhibition in Moscow as "the most productive single psychological effort ever launched by the U.S. in any communist country," but as Greg Castillo demonstrates in chapter 2, *The American "Fat Kitchen" in Europe: Postwar Domestic Modernity and Marshall Plan Strategies of Enchantment*, the 1959 "kitchen debate" was merely the culmination of a propaganda campaign that had been launched over a decade earlier. Berlin was the battleground where the "first" and "second" worlds met at a still-permeable border in the fifteen years before the Berlin Wall was constructed in 1961. Ever since the Berlin airlift in 1948, Europe remained the principal cold war battleground over consumption. Berlin, in particular, served as America's crucial testing ground for a strategy of cold war seduction. Kitchens provided ideal visual aids in that strategy. Soon the U.S. government formed an alliance with American companies to inundate European women's magazines, radio programs, and exhibition halls with images extolling the American kitchen, where a woman had only to push buttons to be free from domestic chores. America's anticommunist cold war policies sought to forge an alliance between labor and business under governmental auspices for Western Europe. Ever since Henry Ford's five-dollar-per-day wage for his factory workers, it had been an article of faith in America that workers' high wages would spur consumption and thereby the economy. Upgraded for the cold war, this consumption-driven policy sought to turn workers into consumers who would raise production and wages into a veritable economic barricade against the rising tide of Soviet communism. At a number of fairs, the U.S. government presented the kitchen as a major metaphor of technological prowess and of consumer society's abundance.

The kitchen, however, was not only a metaphor. To cold war politicians like American Vice President Nixon and Soviet Premier Khrushchev,

kitchen displays represented the diplomatic surrogate for the nuclear arms race. In the politicians' minds, kitchen, space, and nuclear technologies were the principal sites of superpower competition. In examining how American government agencies, businesses, and designers displayed the American way of life at the American national exhibition in Moscow in 1959, Cristina Carbone—in chapter 3, *Staging the Kitchen Debate: How Sputnik Got Normalized in the United States*—provides the essential ideological, political, and material context for the staging of this famous debate. Selecting the three model kitchens for display had been practically an afterthought, but kitchens nevertheless became the reigning icon in the U.S.-Soviet race toward scientific and technological domination. Kitchens served as American tools of countering the image—and the triumph—of *Sputnik*. In suggesting how the American kitchen had to be normalized into an average and typical American standard, Carbone reminds us of how the kitchen was not naturally and inevitably irresistible. The American model kitchen had to be made to look ordinary and affordable enough to represent the “average” kitchen. Her chapter also invites us to consider how these campaigns helped domesticate other innovations into “normal” categories.

In American historiography—and indeed the history of the cold war—Nixon's triumphalism dominates. In chapter 4, “Our Kitchen Is Just as Good”: Soviet Responses to the American Kitchen, Susan E. Reid tells the much-needed alternative story of the American kitchen debate from the Soviet side. Her chapter looks at how Soviet visitors to the 1959 American national exhibition in Moscow viewed the American kitchen. She narrates their ambivalent responses, which ranged from enthusiastic acceptance to outright rejection. Khrushchev, for example, both admired and condemned the American kitchen. Average Russian fairgoers met the displays of affluence with skepticism. Reid shows how Soviets sought to challenge the capitalist commodity fetishism with an alternative socialist vision of domestic consumption and design choices.

The connections between consumer technologies and military innovations were close and complex in other ways as well. Kitchens could function as tools of normalization of radical technologies. Dutch boosters of nuclear energy arranged for the American car corporation General Motors to mount its futuristic kitchen at the Amsterdam atom exhibit in 1957 to encourage public acceptance of nuclear energy. While GM's traveling Kitchen of Tomorrow exhibit had toured several other European cities, Dutch organizers sought to “domesticate” nuclear energy through the kitchen display as a way of convincing the Dutch public of nuclear techno-

logy's potential for peaceful applications. GM staged a fake prototype kitchen design with hired actors to entice the public with a product that the company neither produced nor sold. As Irene Cieraad argues in chapter 5, *The Radiant American Kitchen: Domesticating Dutch Nuclear Energy*, however, the local press and the public greeted the kitchen's futuristic looks, its science-fictional automation, and its modern communication with suppliers with much more enthusiasm than the model of the nuclear-power plant. Cieraad's story invites us to contemplate how local actors used—and even subverted—the wider iconic appeal of the American kitchen for purposes other than what the designers had in mind. It is an example of how the kitchen normalized, domesticated, and stabilized a controversial and potentially lethal technology that had little to do with food preparation.

In the same year that the Dutch organizers of the atom exhibit requested General Motors' Frigidaire Kitchen of Tomorrow, the Yugoslavian state invited another exhibit closely linked to kitchen displays. U.S. businessmen toured not only kitchens but also American-style supermarkets across Europe. Supermarkets were of interest because they linked individual free choice at the end of the food chain with standardized mass production of food within an industrialized agriculture at its inception. Supermarkets also sought to integrate private households into larger technical systems through the cooling chain (refrigerators, refrigerated cars for transporting foods and goods, and an individually owned car). While the U.S. government and corporate America were interested in exporting the American way of life, Tito and local actors had their own agenda in opening the doors to Supermarket USA, as Shane Hamilton shows in chapter 6, *Supermarket USA Confronts State Socialism: Airlifting the Technopolitics of Industrial Food Distribution into Cold War Yugoslavia*. For the Yugoslavian state, the exhibit was intended primarily not to attract consumers but to demonstrate to recalcitrant independent farmers the possibility of reforming agricultural production practices. Thus, Hamilton opens the broader framework in which modern kitchens were embedded. He points to how the kitchen functioned as a node in the food chain and the consumption regime. The frozen foods displayed needed supermarkets to link countryside and markets. Refrigerators that linked distribution and consumption at home were also part of the chain. Individual consumption thus depended on standardized, industrial, and mass-produced food in the agricultural sector at the beginning of the food chain. Supermarkets forced the integration of private households into larger technical systems involving a chain of cooling techniques from refrigerated trucks and trains to transport

systems, individually owned cars, and refrigerators. Hamilton's study reveals the increasing complexity of the technological systems, showing that the subjects of technological transfer were not artifacts but sociotechnical systems. He illustrates how the temporary alliance of the capitalist (the U.S. government and corporate America) and socialist (the Yugoslavian socialist state) consumption junction involved a host of actors, and he demonstrates how local actors may project different meanings onto technical innovations despite intentions to the contrary.

Cold war propaganda and historiography have framed the Nixon-Khrushchev kitchen debate as a major point of reference about the winner of the cold war (America), the triumph of individual consumption (gadgets), and the appeal of the American kitchen (consumerism). This triumphalism has spilled over to current interpretations of the emergence of consumer culture in the 1950s. A number of contributors to this book show that the much-celebrated consumption junction of technological development, as classically articulated by Ruth Schwartz Cowan, goes beyond the roles played by the market and individual consumers. Many other social actors and institutions, such as the nation state and civil organizations, were involved. The contributions in part II, *European Kitchen Politics: Users and Multiple Modernities, 1890s to 1970s* (chapters 7 to 9), demonstrate that the American kitchen —while a spectacular diplomatic and symbolic success of true Hollywood proportions—made much less of an impact on Europe's building practices. The American triumphalist interpretation of the kitchen debate has sidelined the material practices of a specific European coalition of modernizers linked to the welfare state.

Perhaps more surprisingly, the gadget-filled suburban American kitchen operated principally as a symbol. By contrast, the efficient, urban European kitchen was a grand success, even if it never received the same public-relations attention or fame as its American counterpart. In chapter 7, *The Frankfurt Kitchen: The Model of Modernity and the "Madness" of Traditional Users, 1926 to 1933*, Martina Heßler explores a long-neglected but rich European tradition that existed long before the American kitchen splashed onto the scene. A design configuration that was specifically European brought together a coalition of local politicians, reformers, architects, and women's groups. By introducing Margarete Schütte-Lihotzky's Frankfurt kitchen, Heßler offers an example of European design tradition as part of the city's urban housing coalition during the 1920s. The design was to become the standard reference model for kitchen debates throughout the cold war. Appropriating Taylor's scientific-management principles, the architect sought to rationalize work to relieve housewives from the burden

of domestic work. She expected that this “progress” would allow women to work outside the home for wages and that this would facilitate their social and political emancipation. Frankfurt housewives thought otherwise, however. They protested against the architect’s rules and ideas that were inscribed in the kitchen’s design. Working-class housewives tinkered with the kitchen and other technological arrangements to make them fit better into their daily routines. Heßler calls attention to the historically specific European design configuration and documents the process of (re)appropriation in the user phase of technological developments.

By analyzing the gap between modernist ideals and housewives’ practices, the challenges of the configured user come into clearer focus in Esra Akcan’s contribution, chapter 8, *Civilizing Housewives versus Participatory Users: Margarete Schütte-Lihotzky in the Employ of the Turkish Nation State*. Margarete Schütte-Lihotzky was unable to resolve tensions between the architects who sought to civilize housewives and the recalcitrant users of the modern kitchen in Frankfurt. In Turkey, however, she tried to negotiate the gap. The modern, rational European kitchen had turned into an icon and building block of the emerging Turkish nation state after the 1908 revolution. Schütte-Lihotzky’s design of the Frankfurt kitchen, representing the pinnacle of modern life, circulated widely in Turkish magazines during the 1920s and 1930s. Girls’ Institutes, founded in key Turkish cities beginning in 1928, served as important vehicles in instructing women how to be modern efficient housewives. After the Nazi takeover of Germany and Austria forced Schütte-Lihotzky to emigrate, the Turkish government invited her to participate in the nation’s modernist building program. While she participated in the state’s push for the modernization and Westernization of Turkey, Schütte-Lihotzky expressed reluctance about involving herself in the design of kitchens. She recognized how the modern kitchen was inscribed as an exclusive female sphere, reinforcing women’s redomestication rather than the liberation that she had once predicted. She nevertheless translated the political and ethical aspirations of the Frankfurt kitchen to her designs for Turkish village schools, while searching for ways to open up design possibilities where local peasants’ voices could be heard and incorporated. By analyzing the modern kitchen and the rationalization of the household, Akcan succeeds in showing how the tensions between Western and Eastern ways in Turkey were discussed, hybridized, and translated in Schütte-Lihotzky’s later work, when she sought to configure users as active agents of the built environment.

Even if Schütte-Lihotzky maintains her status as a pioneer in modern kitchen design, her contribution needs to be considered in the context of

the long tradition of women's participation in shaping domestic spaces. The process of appropriating the modern kitchen is part of a rich context. In 1927, Dutch women's organizations brought home from Germany the example of the Frankfurt kitchen, redesigned the model to fit local Dutch circumstances, and promoted it among their members throughout the country. Dutch women's organizations (and there is no reason to believe they were unique in the Western world) had been at the forefront of the designing, testing, and promoting of household appliances as early as 1915, Liesbeth Bervoets argues in chapter 9, "Consultation Required!" Women Coproducing the Modern Kitchen in the Netherlands, 1920 to 1970. Their tinkering found its way to the furniture company Bruynzeel in the 1930s, when the company attempted to incorporate the design into a model that could be mass produced. As part of a governmental building program to ameliorate the dramatic housing shortage after World War II, the Bruynzeel kitchen entered a million households to become the Dutch standard for many years. Bervoets illuminates the technological transfer from Germany to the Netherlands and documents how user groups positioned themselves as producers of new consumer goods in the design phase of technological development. The chapter points to a specific European mediation junction by showing the interplay between the (local) state, user groups, and user professionals. The contributions in part II thus present the counternarrative to the American triumphalist representation to the modern kitchen. Part III, Transatlantic Technological Transfer: Appropriating and Contesting the American Kitchen (chapters 10 to 12) focuses on how a complex process of appropriation and rejection occurs when European and American traditions interacted with each other.

In Europe, the American kitchen assumed a range of meanings when users appropriated it. The British welfare state was responsible for designing and manufacturing the modern kitchen, but most residents interpreted the British state-subsidized kitchen as originating from and symbolizing America. In chapter 10, *The Nation State or the United States? The Irresistible Kitchen of the British Ministry of Works, 1944 to 1951*, Julian Holder tells the story of state-designed kitchens inspired by the Frankfurt kitchen, Buckminster Fuller's Dymaxion house, and the U.S. Defense Department's housing models. During World War II, the Ministry of Works commissioned kitchen designs as the central component in its campaigns for both mass-produced temporary housing and the peacetime conversion of the wartime aluminum industry. During a period of austerity and reconstruction, British consumers appropriated the innovative, standardized British design, believing it to be of (streamlined) American origin. As a central



feature of the state's construction of 156,000 postwar emergency houses, the kitchens proved to be so popular with the women who used them that the temporary design, intended to be used for only ten years, lasted well into the cold war era. The state-subsidized kitchen design set standards for modern kitchen design that were largely unmatched in the private sector. In a perverse misreading of postwar politics, British consumers projected private enterprise and American attitudes onto public services. The residents attributed the government's unexpected "luxuries" of the prefab kitchens to America instead of to the British welfare state. Holder's research provides many details about the technological transfer from military to civilian uses and also probes the negotiations between European and American traditions and innovations. Finally, he points to the difference between designers' intent and actual use.

In chapter 11, *Managing Choice: Constructing the Socialist Consumption Junction* in the German Democratic Republic, Karin Zachmann offers a key counterpoint to the existing Anglo-Saxon literature. She focuses on the configuration of the state and the economy in the absence of a well functioning civil society. Zachmann maps the models, concepts, and negotiations that were linked to kitchen design and the mechanization of housework in the German Democratic Republic (GDR) in the 1950s. Communication among planners, architects, producers, retailers, and users was a central challenge for the proper functioning of a nationalized economy. This chapter shows how the East German state sought to regulate this communication in an attempt to construct a state socialist consumption junction in an orderly and planned fashion. Zachmann analyzes how the various stakeholders in this socialist consumption junction negotiated notions about housework and kitchen models and shaped relationships of power and gender. She questions the extent to which users were able to influence the production of goods. Zachmann finally reminds us that the kitchen debate was an internal affair that divided stakeholders within the socialist state as well.

Politically squeezed between East and West, Finland offers a case in point. In chapter 12, *What's New? Women Pioneers and the Finnish State Meet the American Kitchen*, Kirsi Saarikangas notes that Finnish visitors were unimpressed when in 1961 they toured the American kitchen display that had been the backdrop to the famous 1959 Nixon-Khrushchev debate. Americans, the Finns felt, did not have the sole claim on modernity. Saarikangas introduces the Finnish kitchen as both a mediator between American models and modernist European traditions and as a bridge between West and East. As parts of the national debate about the modern-

ization of Finnish housing, kitchens and bathrooms figured prominently. Women professionals—from architects to household scientists and teachers—were in the spotlight during the 1920s and 1930s. Finnish professional women, like their Dutch counterparts, believed that a new generation of modern women could be socialized to act simultaneously as active housewives and economically self-supporting women if the kitchen were transformed. After World War II, architects and planners increasingly looked to the United States for inspiration, yet Finland achieved international fame for its own excellent design. Finland exported kitchens to West Germany, Sweden, and the Soviet Union. It became a portal in the iron curtain and mediated its kitchen for the Soviet Union. Saarikangas's contribution thus offers details about the multifaceted technological transfer of the American kitchens and about the role played by women professionals as mediators in the uniquely positioned country of Finland.

The kitchen debate is framed as a central focus or even a fetish of the cold war. Finally, in part IV, *Spreading Kitchen Affairs: Empowering Users?* (chapters 13 and 14), Ruth Oldenziel and Matthew Hilton challenge the historiography of the kitchen debate. The export of the American kitchen is a tangled affair. Oldenziel, in chapter 13, *Exporting the American Cold War Kitchen: Challenging Americanization, Technological Transfer, and Domestication*, situates the export of consumerism within critical scholarship on the American kitchen. She points to the multiple design and building traditions in the United States and the multiple ways that these American traditions were either ignored or reworked to suit local circumstances and questions the very existence of the American kitchen as a widespread practice. In chapter 14, *The Cold War and the Kitchen in a Global Context: The Debate over the United Nations Guidelines on Consumer Protection*, Matthew Hilton debunks the kitchen debate's centrality by placing it in a larger time frame and in a global context. He focuses on consumers as active agents and part of social movements who seek to represent users politically on a transnational stage. Despite the rhetoric to the contrary, the apostles of Western consumer culture during the cold war were remarkably uninterested in the consumer as a living subject, real user, or active agent in the shaping of new consumer goods. Hilton underscores how consumers created their own organizations. In analyzing the development of the European and American consumer movements, the author explores how organized consumers within the free-market economy reenacted the contradictory positions on the kitchen that Nixon and Khrushchev had defended in Moscow. The fierce dispute between the statesmen on whether free choice in the market or equal provision by the state served the con-

sumer better neatly paralleled the confrontation between two leading advocates of consumer policy at the United Nations. While the first advocated an unfettered marketplace catering to the consumer as an individual shopper, the other argued for more regulations to provide as many consumers as possible with access to basic necessities and to ensure that consumers were not harmed. Hilton acknowledges the contests among the state, the economy, and civil society in defining consumption for Europe. In so doing, he takes issue with the exclusive nation-state frame to argue for the importance of transnational configurations of design and use.

### Notes

1. The authors would like to thank Greg Castillo and the anonymous reviewers for their insightful remarks. Most of all, this introduction could not have written without the lively discussions that were shared with the contributing authors.
2. Harrison E. Salisbury, *New York Times*, 25 July 1959, 1. For an analysis of that encounter from a public-relations point of view, see Karal Ann Marling, "Nixon in Moscow: Appliances, Affluence, and Americanism," in *As Seen on TV: The Visual Culture of Everyday Life in the 1950s* (Cambridge: Harvard University Press, 1994), chap. 7.
3. For one of the first historical but modernist-inspired accounts on kitchens, see Sigfried Giedion, *Mechanization Takes Command: A Contribution to Anonymous History* (New York: Norton, 1948), pt. 6; see also Marling, "Nixon in Moscow," *As Seen on TV*, 262–63.
4. Langdon Winner, *The Whale and the Reactor: A Search for Limits in an Age of High Technology* (Chicago: University of Chicago Press, 1986).
5. Gabrielle Hecht, *The Radiance of France: Nuclear Power and National Identity after World War II* (Cambridge: MIT Press, 1998), 15.
6. See the contributions of Julian Holder (chapter 10), Greg Castillo (chapter 2), and Karin Zachmann (chapter 11) to this book.
7. Mary Nolan, "Consuming America, Producing Gender," in Laurence R. Moore and Maurizio Vaudagna, eds., *The American Century in Europe* (Ithaca: Cornell University Press, 2003), 243–261.
8. Walter L. Hixson, *Parting the Curtain: Propaganda, Culture, and the Cold War, 1945–1961* (New York: St. Martin's Press, 1997), chap. 6. See also Robert H. Haddow, *Pavilions of Plenty: Exhibiting American Culture Abroad in the 1950s* (Washington, DC: Smithsonian Institution Press, 1997).
9. Barrie Robyn Jakabovics, "Displaying American Abundance Abroad: The Misinterpretation of the 1959 American National Exhibition in Moscow," Paper presented

at the senior research seminar in American history, Barnard College, Columbia University, 18 April 2007, <<http://www.barnard.edu/history/sample%20thesis/Jakabovics%20thesis.pdf>>.

10. For an in-depth study of the design and choreography of the Moscow exhibition, see the contribution of Cristina Carbone (chapter 3) to this book; Marling, "Nixon in Moscow," *As Seen on TV*.

11. For ambivalent reactions of the Moscow visitors, see Susan E. Reid's chapter in this volume (chapter 4). See also Susan E. Reid and David Crowley, eds., *Style and Socialism: Modernity and Material Culture in Post-War Eastern Europe* (Oxford: Berg, 2000), and David Crowley and Susan E. Reid, eds., *Socialist Spaces: Sites of Everyday Life in the Eastern Bloc* (Oxford: Berg, 2002). The special place of Germany in the battle over consumption is discussed by David F. Crew, *Consuming Germany in the Cold War* (Oxford: Berg, 2003).

12. Iurii Gerchuk, "The Aesthetics of Everyday Life in the Khrushchev Thaw in the USSR (1954–64)," in Reid and Crowley, *Style and Socialism*, 81–99.

13. For example, Frank Inklaar, *Van Amerika geleerd. Marshall-hulp en kennisimport in Nederland* (The Hague: Sdu, 1997).

14. Victoria de Grazia, *Irresistible Empire: America's Advance through Twentieth-Century Europe* (Cambridge: Belknap Press, 2005), 345–350; Charles S. Maier, "The Politics of Productivity: Foundations of American International Economic Policy after World War II," in Charles S. Maier, ed., *The Cold War in Europe: Era of a Divided Continent* (Princeton: Markus Wiener, 1996), 169–202.

15. According to Jakabovics, the kitchen served as a welcome symbol of material abundance that helped to restore America's identity when the country felt threatened by Soviet economic success during the late 1950s. Jakabovics, "Displaying American Abundance," 42.

16. Almost all contributions to the book give ample evidence.

17. Jean-Claude Kaufmann, *Kochende Leidenschaft. Soziologie vom Kochen und Essen* (Konstanz: UVK Verlagsgesellschaft, 2006).

18. For the transition in Germany, see Paul Betts, *The Authority of Everyday Objects: A Cultural History of West German Industrial Design* (Berkeley: University of California Press, 2004), 220–224.

19. Elaine Tyler May, *Homeward Bound: American Families in the Cold War Era* (New York: Basic Books, 1988).

20. Irene Cieraad, chapter 5 in this volume.

21. A biographical methodological approach to artifacts is more common in archaeology and in material culture studies than in the history of technology. Igor

Kopytoff, "The Cultural Biography of Things: Commodization as Process," in Arjun Appadurai, ed., *The Social Life of Things: Commodities in Cultural Perspective* (Cambridge: Cambridge University Press, 1986), 64–91; Steven Lubar and David W. Kingery, eds., *History from Things: Essays on Material Culture* (Washington, DC: Smithsonian Institution Press, 1993).

22. Ruth Oldenziel and Adri Albert de la Bruhèze, "Theorizing the Mediation Junction," in Adri Albert de la Bruhèze and Ruth Oldenziel, eds., *Manufacturing Technology, Manufacturing Consumers: The Making of Dutch Consumer Society* (Amsterdam: Aksant, 2008), 9–41; Onno de Wit, Adri Albert de la Bruhèze, and Marja Berendsen, "Ausgehandelter Konsum. Die Verbreitung der modernen Küche, des Kofferradios und des Snack Food in den Niederlanden," *Technikgeschichte* 68, no. 2 (2001): 133–155.

23. Ruth Schwarz Cowan, "The Consumption Junction: A Proposal for Research Strategies in the Sociology of Technology," in Wiebe E. Bijker, Thomas P. Hughes, and Trevor J. Pinch, eds., *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology* (Cambridge: MIT Press, 1987), 261–280, 263.

24. Joy Parr, "What Makes a Washday Less Blue? Gender, Nation, and Technology Choice in Postwar Canada," *Technology and Culture* 38, no. 1 (1997): 153–186.

25. Cynthia Cockburn and Susan Ormrod, *Gender and Technology in the Making* (London: Sage, 1993).

26. See also Ellen van Oost, "Materialized Gender: How Shavers Configure the Users' Femininity and Masculinity," in Nelly Oudshoorn and Trevor Pinch, eds., *How Users Matter: The Co-Construction of Users and Technology* (Cambridge: MIT Press, 2003), 193–208.

27. Oldenziel and De la Bruhèze, "Theorizing the Mediation Junction."

28. De Grazia, *Irresistible Empire*.

29. Roger Horowitz and Arwen Mohun, eds., *His and Hers: Gender, Consumption, and Technology* (Charlottesville: University Press of Virginia, 1998); Danielle Chabaud-Rychter, "Women Users in the Design Process of a Food Robot: Innovation in a French Domestic Appliance Company," in Cynthia Cockburn and R. Fürst-Diliç, eds., *Bringing Technology Home: Gender and Technology in a Changing Europe* (Birmingham: Open University Press, 1994), 77–93; Anne-Journe Berg and Danielle Chabaud-Rychter, "Technological Flexibility: Bringing Gender into Technology (or Was It the Other Way Round?)," in Cockburn and Fürst-Diliç, *Bringing Technology Home*, 94–110; Ruth Oldenziel, "Man the Maker, Woman the Consumer: The Consumption Junction Revisited," in Angela N. H. Creager, Elizabeth Lunbeck, and Londa Schiebinger, eds., *Feminism in Twentieth-Century Science, Technology, and Medicine* (Chicago: Chicago University Press, 2001), 128–148.

30. Joy Parr, *Domestic Goods: The Material, the Moral, and the Economic in the Post-war Years* (Toronto: University of Toronto Press, 1999); Martina Hefßler, "Mrs. Modern Woman." *Zur Sozial- und Kulturgeschichte der Haushaltstechnisierung* (Frankfurt am Main: Campus, 2001); Karin Zachmann, "A Socialist Consumption Junction: Debating the Mechanization of Housework in East Germany, 1956–1957," *Technology and Culture* 43, no. 1 (January 2002): 73–99.

31. For the burgeoning interest in consumers as actors within the guild of historians, see, for example, Susan Strasser, Charlie McGovern, and Matthias Judt, eds., *Getting and Spending: European and American Consumer Societies in the Twentieth Century* (Cambridge: Cambridge University Press, 1998); Ellen Furlough and Carl Srikwerda, eds., *Consumers against Capitalism? Consumer Co-operation in Europe, North America and Japan, 1840–1990* (Lanham, MD: Rowam & Littlefield, 1999); Matthew Hilton and Martin Daunt, eds., *The Politics of Consumption: Material Culture and Citizenship in Europe and America* (Oxford: Berg, 2001); Matthew Hilton, *Consumerism in Twentieth-Century Britain: The Search for a Historical Movement* (Cambridge: Cambridge University Press, 2003); Frank Trentmann, ed., *The Making of the Consumer: Knowledge, Power and Identity in the Modern World* (Oxford: Berg, 2006); John Brewer and Frank Trentmann, eds., *Consuming Cultures, Global Perspectives: Historical Trajectories, Transnational Exchanges* (Oxford: Berg, 2006); Elizabeth Cohen, *A Consumers' Republic: The Politics of Mass Consumption in Postwar America* (New York: Knopf, 2003); Meg Jacobs, *Pocketbook Politics: Economic Citizenship in Twentieth-Century America* (Princeton: Princeton University Press, 2005).

32. Nelly Oudshoorn and Trevor Pinch, *How Users Matter: The Co-Construction of Users and Technology* (Cambridge: MIT Press, 2003); Madeleine Akrich, "The De-scription of Technical Objects," in Wiebe E. Bijker and John Law, eds., *Shaping Technology/Building Society: Studies in Sociotechnical Change* (Cambridge: MIT Press, 1992), 205–24; Madeleine Akrich, "User Representations: Practices, Methods and Sociology," in Arie Rip, Tom J. Misa, and Johan Schot, eds., *Managing Technology in Society: The Approach of Constructive Technology Assessment* (London: Pinter, 1995), 167–185.

33. For the concept of the frames of meaning, see Bernard W. Carlson, "Artifacts and Frames of Meaning: Thomas A. Edison, His Managers, and the Cultural Construction of Motion Pictures," in Bijker and Law, *Shaping Technology*, 175–198.

34. Akrich, "The De-scription of Technical Objects," 208.

35. Stephen Woolgar, "Configuring the User: The Case of Usability Trials," in John Law, ed., *A Sociology of Monsters: Essays on Power, Technology, and Domination* (London: Routledge, 1991), 57–99.

36. Although the concept of domestication underexposes the possible influence of users on the design process of technology, it successfully highlights that consuming technology is an activity and presupposes active users. For the concept of domestication, see Roger Silverstone and Eric Hirsch, eds., *Consuming Technologies: Media and*

*Information in Domestic Spaces* (London: Routledge, 1992). For a more detailed and comprehensive discussion of the scope and limitations of the concepts of appropriation and domestication, see Gwen Bingle and Heike Weber, "Mass Consumption and Usage of Twentieth-Century Technologies: A Literature Review," <[http://www.zigt.zet.tu-muenchen.de/users/papers/literaturbericht08-16-2002\\_neu.pdf](http://www.zigt.zet.tu-muenchen.de/users/papers/literaturbericht08-16-2002_neu.pdf)>.

37. For an example study of how users tinkered with or rejected the modern and rational kitchen or how they rejected it completely, see the contributions of Martina Heßler (chapter 7) and Liesbeth Bervoets (chapter 9) to this volume.

38. Catherina Landström, "National Strategies: The Gendered Appropriation of Household Technology," in Mikael Hård and Andrew Jamison, eds., *The Intellectual Appropriation of Technology: Discourses on Modernity, 1900–1939* (Cambridge: MIT Press, 1998), 163–187.

39. Carroll W. Pursell, "Domesticating Modernity: The Electrical Association for Women, 1924–1986," *British Journal for the History of Science* 32 (1999): 47–67; Heßler, "Mrs. Modern Woman"; Parr, *Domestic Goods*, chap. 4; Joy Parr, "Modern Kitchen, Good Home, Strong Nation," *Technology and Culture* 43, no. 4 (October 2002): 657–667; Wiebe E. Bijker and Karin Bijsterveld, "Women Walking through Plans: Technology, Democracy, and Gender Identity," *Technology and Culture* 41, no. 3 (2000): 485–515.

40. In particular, Liesbeth Bervoets (chapter 9), Kirsi Saarikangas (chapter 12), and Karin Zachmann (chapter 11) in this volume.

41. For a study of the Swedish case, see Boel Berner, "'Housewives' Films' and the Modern Housewife: Experts, Users, and Household Modernization. Sweden in the 1950s and 1960s," *History and Technology* 18, no. 3 (2002): 155–179.

42. Peter Weingart, "Differenzierung der Technik oder Entdifferenzierung der Kultur," in Bernward Joerges, ed., *Technik im Alltag* (Frankfurt am Main: Suhrkamp, 1988), 145–164.

43. See Susan Stage and Virginia B. Vincenti, ed., *Rethinking Home Economics: Women and the History of a Profession* (Ithaca: Cornell University Press, 1997); Jaap van Ginneken, *Uitvinding van het publiek. De opkomst van opinie en marktonderzoek in Nederland* (Amsterdam: Otto Cramwinckel, 1993); Carolyn Goldstein, "From Service to Sales: Home Economics in Light and Power, 1920–1940," *Technology and Culture* 38, no. 1 (January 1997): 121–152.

44. De Grazia, *Irresistible Empire*; Marling, "Nixon in Moscow," in *As Seen on TV*, 249.

