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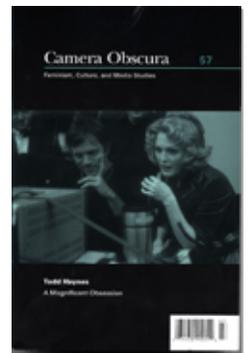
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## **Kitchen Technologies: Promises and Alibis, 1944-1966**

Laura Scott Holliday

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## **Kitchen Technologies: Promises and Alibis, 1944–1966**

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Laura Scott Holliday

### **Motorama and the Romance of Technology**

Everyone says the future is strange  
But I have a feeling some things won't change!  
—Woman, *Design for Dreaming*

One of the classic advertising extravaganzas of the 1950s, General Motors' "Motoramas" were like giant museum exhibits, trade fairs, or debutante balls for GM's new products. The 1956 Motorama, dubbed "Highways of Tomorrow," drew 275,316 visitors during its six-day opening run at New York's Waldorf-Astoria hotel; later, its ten-minute promotional film version, *Design for Dreaming*, would be seen by more than 8 million people.<sup>1</sup> Among the most strenuously hyped exhibits at the Motorama was the Kitchen of Tomorrow. In contrast to the Motorama's main attraction, which showcase the latest crop of automobiles including five futuristic models, the Kitchen of Tomorrow was designed not to

*Design for Dreaming* (prod. Victor D. Solow, for GM, 1956).

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show off current products but to be a spectacle of domestic futurism. Features included an Ultrasonic Dishwasher, a Roto-Storage Center (rotating glass refrigerator/freezer), and an Electro Recipe File with a color monitor mounted at eye level on which the cook could preview images of various dishes.<sup>2</sup> In *Design for Dreaming*, a young woman is visited one night by a mysterious masked and tuxedo-clad stranger who magically transforms her pajamas into an evening gown and whisks her away to visit the Motorama. When she arrives at the Kitchen of Tomorrow, the heroine twirls and sings her way through the kitchen's main features, places a cake in the glass-domed oven, exclaims "I'm free to have fun around the clock!" and then performs a quick-change dance routine in which she appears in tennis, swimming, and golf outfits—signifying, of course, that her day is filled with leisure, thanks to the Kitchen of Tomorrow.

Beginning with the kitchen in *Design for Dreaming*, this essay examines a series of representations of Kitchens of Tomorrow in an effort to elaborate popular-cultural understandings of the relationship between mediated technologies of gender and technologies of the kitchen in the postwar United States. On the face of things, it seems remarkable that a company like General Motors, whose goal was to maximize purchasing in the present, attempted to do so with extravaganzas showcasing *future* kitchen commodities—after all, it could be expected that Kitchens of Tomorrow would discourage, not encourage, consumers from buying contemporary appliances that were already obsolete compared to futuristic ones like the Roto-Storage Center. Yet Kitchens of Tomorrow abounded during the two decades following the end of World War II, promoted by companies to suggest that present-day appliances were the best available and that appliance producers had harnessed domestic-technological progress itself in order to serve women now and in the future. More broadly, Kitchens of Tomorrow, and the consumerist technokitchens that they indirectly promoted, played an important role in suturing ideologies of postwar femininity, democracy, domesticity, family values, and consumption, and they did so by centering American technological progress—materialized through

corporate research and development—as something mobilized to serve women. In the postwar period, women’s status as homemakers was constructed (and justified) as part of a kind of national contract, according to which, through their roles as raisers of the nation’s children and supporters and maintainers of the nation’s domestic spaces, (white, middle- and upper-class) homemaking women would be recognized as central to American greatness. As such, they would be supported by a whole range of institutions, from government departments to magazines to university and corporate research units. The domestic sphere would be understood as separate but equal to the public sphere, and women would be equal partners in the postwar national project, trading in their access to paid labor and other aspects of public life with the knowledge that domestic and homemaking issues were of vital public concern. As full and equal partners they would also enjoy the spoils of postwar prosperity and the advances in science and production technologies that improved Americans’ quality of life after the war. A major component of this realization of the benefits of technological progress would be the liberation of women from the drudgery of household labor, a drudgery that crystallized in the messiness and relentlessness of kitchen work. In this context, *Kitchens of Tomorrow* were material vehicles expressing postwar dreams of transcendence, but they also, as we shall see, worked to obscure the fact that such dreams would never materialize.

Although promoters of postwar kitchens suggested otherwise, there is no such thing as a neutral advance in kitchen technology; rather, the development and marketing of particular kitchen technologies over others reflects assumptions about what gendered labor means in its broadest and most minute, quotidian manifestations. With their assemblages of designed machines and utensils that interact with female bodies on a daily basis, kitchens—futuristic or not—are thick with messages about the cultural meanings of feminized domestic labor and about prevailing understandings of the relationship between women and technology. In this respect, the expression *kitchen technologies* is a double entendre: first, it refers to tools that facilitate kitchen labor;

second, following theorists like Michel Foucault and Teresa de Lauretis, it refers to the ways in which representations of the kitchen interpellate women as particular kinds of subjects.<sup>3</sup> Images of techno-kitchens show us appliances and their functions, but they also bring into relief the functions that remain to be accomplished by women's labor. That is, representations of kitchen technology create a kind of "space-off," a space outside the frame but "inferable from what the frame makes visible," that projects and produces the people who ideally inhabit that space and the kinds of labor that are to be done there.<sup>4</sup> In the case of postwar Kitchens of Tomorrow, the space-off becomes particularly charged with meaning because, according to the logic of postwar domestic-technological progress, the most important element of the space-off of any given image of a Kitchen of Tomorrow was a woman precisely *not* located in the kitchen, whose absence marked both her own liberation and the success of the Kitchen of Tomorrow.

The equation imagined in constructions of Kitchens of Tomorrow, then, seemed simple enough: technological progress would liberate women from kitchen labor, a change they would welcome with open arms. But this equation was significantly more complex than it seemed. First, notwithstanding the fact that Kitchens of Tomorrow displays toured the country and the world, featured at venues like department stores and trade fairs, and notwithstanding the 1950s glorification of technological progress in general as self-evidently worthwhile, women were not uncritical consumers of high-tech appliances or the ideologies that Kitchens of Tomorrow promoted. Second, even as domestic-technological progress was promised to women over and over again, other pressures ensured that kitchen work did not, and would not, disappear. New domestic technologies do not, as intuition would suggest, lessen women's work in the home; rather, standards of hygiene and creativity rise, and new technologies also produce new kinds of labor.<sup>5</sup> Postwar standards, along with the valorization of the homemaker-mother, acted as powerful pressures on women to reinsert any time they saved into the endless loop of reproductive labor like child rearing and housekeep-

ing. Women's food preparation and cleanup were "labors of love," work that reproduced the bourgeois family as an institution ideologically and materially by reiterating an appropriately gendered division of labor and by erecting the home as a space distinct from the public sphere.<sup>6</sup> In this respect, to the extent that the promise of kitchen technologies was that one day women could toss away their collective aprons forever, never looking back except to push the occasional button or perhaps choose a meal, the project was doomed from the start. The ideological climate supported contradictory aims in which the idea of women being freed from kitchen labor held a powerful appeal, yet the performance of domestic labor was seen as women's most important contribution to the social body.

I use a language of promises and alibis to investigate these contradictions. A *promise* is a gesture toward the future. In the postwar period, promises to women merged the rhetoric of technological progress and that of loyalty to women—as wives and mothers and as consumers. An *alibi*, a "being elsewhere," is a rhetorical move that attempts to circumvent unfulfilled promises, and it does so in one of two ways. Appropriating the word's conventional meaning, the first kind of alibi refers to an excuse, apology, or qualification of the promise. In the realm of advertising, for example, a 1944 Westinghouse ad published in *McCall's* proclaims "Let's hope it's not too far away . . . that bright new day when you'll again know the lift of living electronically. . . . At the moment, we're head over heels building essential war materials. . . . But when the go-ahead signal flashes, you can count on Westinghouse to turn out all the fine new appliances you need." In this ad Westinghouse uses the patriotic alibi of wartime service to explain why it cannot be a reliable source of exhilarating new appliances, and it promises that it will fulfill that role after the war. If the first kind of alibi apologizes for a deferral, the second kind approaches "being elsewhere" as celebratory distraction or fetish. Here I adapt a term Jean Baudrillard uses in *The System of Objects* to describe the function of antiques. According to Baudrillard, antiques' authenticity and archaic functionality imbues the contemporary home with a fetishistic, mythological aura,

**THE ART OF BETTER LIVING**

Yesterday... Today... Tomorrow...  
It's Electrical Living by Westinghouse

Let's hope it's not too far away... that bright new day when you'll again have the joy of being electrically. And when it does come, Westinghouse will be a name to remember. It stands for the latest and greatest appliances required in making 30 million pre-war electrical home appliances.

More than that... it stands for years of trial and tested background in making out just one or two appliances, but many, many different types of electrical services for your home.

At the moment, we're busy at work building essential war material. And we'll stick to that job until it is done. But when the go-ahead signal flashes, you can count on Westinghouse to turn out all the fine new appliances you need to handle that "new dawn" feeling about tomorrow. In war or peace, we take your homeliving problems to heart. The present marketplace shows there are just a handful of what's to come.

**WESTINGHOUSE ELECTRIC & MACHINERY CO., PITTSBURGH, PA.**

**30 MILLION PRE-WAR**  
**Westinghouse**  
**ELECTRIC HOME APPLIANCES**  
**FOUR FIFTHS OF THE FREE COUNTRIES TO COME**

WESTINGHOUSE ELECTRIC & MACHINERY CO., PITTSBURGH, PA.

enabling the transportation of the owner “back beyond time . . . so that those surroundings [become] simply the perfect discourse directed by human beings to themselves.”<sup>7</sup> The alibis I describe here involve a temporal move in the opposite direction, a gesture toward the future that references the eventual transcendence of kitchen labor. Such transcendence was coded in concrete terms through design and through representations that evoked a pleasurable and labor-free future; in the Westinghouse ad, for exam-

ple, the appliances represented as objets d'art, with their curvilinear, streamlined design, evoke both pleasure and futurism. In sum, while promises attempted to suture representations of techno-kitchens with an inevitable and desirable technological progress, of which women were the beneficiaries, alibis pointed away from this binary toward a third, often abstract element like nationalism, science, pleasure, freedom, or love.

Kitchens of Tomorrow, in other words, sold conservative gender roles disguised as an escape from them. Kitchen-technology promotion had to construct the possibility of emancipation and then continually defer it (make excuses for it, the first kind of alibi), transcoding a narrative of technological progress into another realm, like consumerism or romance, and encouraging women to derive pleasure from their kitchen labor by purchasing and using commodities that signified technological progress and contained the promises of a future ("being elsewhere," the second kind of alibi) that transcended the kitchen. Placing Kitchens of Tomorrow in narratives in which their use was contextualized among other settings, characters, and expressions of gendered and nationalist values enabled the negotiation of these contradictions. Put in terms of the logic of the space-off, media representations of Kitchens of Tomorrow could bypass binary choices to place the homemaker either inside or outside the kitchen; in narrative media, the woman in the space-off was more mobile and could be at different moments, for example, recontained within the domestic space on a pretense other than domestic labor, shown passing through the kitchen, or shown outside the kitchen fulfilling obligations that reinforced rather than subverted traditional gender roles. On a less literal level, filmic and other techniques of mediation enabled Kitchens of Tomorrow to wriggle their way out of ideological binds—or, more precisely, to leap across ideological gaps, producing relatively seamless effects in which the struggle with the dilemma of the space-off was resealed in a seemingly coherent narrative—and thus media technologies themselves worked as alibis.

The kitchens featured in this essay each illuminate different aspects of the mechanisms I have been outlining. I close the

current section by returning to the film *Design for Dreaming* and the GM Motorama Kitchen of Tomorrow it promoted. The separate-but-equal-spheres logic emerges in the Motorama and in the film through parallels between cars and kitchens, but it is undermined, not strengthened, by the liberatory narrative of the Kitchen of Tomorrow. The film anxiously maneuvers through this complication, resolving it at least provisionally by submerging the woman's liberation from labor under two alibis: technological progress in the public (not the private) sphere and the transcendence of romance. By unraveling representations of domestic-technological progress in a 1943–44 *McCall's* contest that asked readers to choose between a Tried-and-True Kitchen and a Day-after-Tomorrow Dream Kitchen, the second section calls into question the futurism implicit in the appellation “dream kitchen” and exposes some of the complexities of attempts by companies to evoke technological progress in order to forge allegiances with female consumers of kitchen technologies. I close this section by turning to Walt Disney's Carousel of Progress, an audio-animatronic feature that reiterates these advertising logics and incorporates a construction of postwar American nationalism and family values through the (conflicting) messages it sends through both its form and content. The third section opens with an examination of a kitchen produced by space-age scientist Bruce Templeton in the film *The Glass Bottom Boat* (dir. Frank Tashlin, US, 1966), a kitchen that “doesn't need a woman” yet apparently still requires a full-time maid. I address two interrelated questions: first, what the futuristic outcome of the midcentury replacement of maids by “electronic servants” was imagined to be, and second, whether technology, domestic or otherwise, was ultimately viewed as compatible with normative femininity during the postwar period. My conclusion returns, by a different path, to the romance of technology examined in the first section, and a cautionary tale about another view of women and machines.

The texts I examine in this essay bear a variety of relationships to institutions that directly sold kitchen technologies to women, each employing different genre-specific devices and reflecting different institutional interests and priorities. *Design for*

*Dreaming* is a commercial film promoting General Motors/Frigidaire; *McCall's* is explicitly dedicated to homemaker advocacy but is equally interested in keeping the wheels of consumerism well oiled; the Carousel of Progress was sponsored by General Electric; and *The Glass Bottom Boat* is a feature-film romantic comedy. I am interested here primarily in the ways in which this range of texts, from the seemingly unmediated material culture of kitchen design to apparently uninterested filmic narratives like *The Glass Bottom Boat*, ultimately share similar cultural anxieties, promote similar consolation of those anxieties, and otherwise encode similar ideological agendas. Cultural hegemony is achieved through networks and processes of institutional collaboration that center and reinforce dominant ideologies across seemingly discrete social and cultural projects. In this respect, kitchen technologies and media technologies work together and through each other as technologies of gender.

In *Design for Dreaming* (and at the Motorama itself) the promises of kitchen technologies are initially established through the showcasing of cars alongside kitchens, promoting a parallel between automobiles and major kitchen appliances. This parallel was in place long before the Motorama: through bulbous streamlined forms, baroque chrome “gorp” trim, and color trends, appliance design echoed automobile design during much of the postwar period. Refrigerators and cars share related histories of production, corporate configuration, and aesthetics,<sup>8</sup> but in *Design for Dreaming*, what is most visible is the sense that the kitchen, or at least having the appropriate cutting-edge Frigidaire appliances in a kitchen, offers independence and personal freedom (and status) parallel to that enabled by owning an automobile. Although GM did make an effort to market cars to women with such promotional tactics as commissioning Christian Dior and other fashion designers to design outfits for the female models that matched the automobile models—and narrating *Design for Dreaming* from the perspective of a young woman—this feminizing of the automobile was an effort to sell *second* cars to families, while the *first* car (the husband's) and the refrigerator were marketed as essentials. In other words, despite the attempt

to aim the automobile toward a female audience, the primary promotional strategy still positioned the car and the kitchen as complementary and parallel commodities corresponding to the complementary, separate-but-equal spheres men and women were supposed to occupy and the roles they were expected to embody. Yet their very parallelism also offered a promise to female consumers and users of refrigerators: that on the corporate level, the same kind of energy was being put into producing cutting-edge kitchen appliances as was being invested in automobiles. It also offered an alibi: the liberatory vision of a future not in the kitchen (thanks to Frigidaire's research and development) but driving down the highway in a fancy new GM car.

Inserting the Kitchen of Tomorrow into this car-kitchen equation destabilizes its equilibrium, which opens up some fairly radical possibilities that must then be contained. *Design for Dreaming* relies on a seduction narrative but also on an ambiguity about what exactly is seducing the protagonist. When the masked stranger initially visits the woman's bedroom (possibly in a dream), he gives her a heart-shaped invitation that takes flight through the air toward the Motorama. She sings that she is "follow[ing] my heart" to the Motorama, suggesting that the commodities available there will offer her some kind of personal satisfaction, if not love, but she is alternately shown following the heart-invitation and the man himself. On the one hand, this ambiguity solves the potential problem of having the protagonist "follow her heart" in a way that is exclusively directed toward consumption (though it certainly leaves that possibility open) by making available a more conventionally romantic interpretation. On the other hand, this very ambiguity works to link seduction by commodities to romantic seduction, a connection that is emphasized throughout the film as the mysterious stranger offers to purchase various cars for the woman that are on display at the Motorama. The implication is that her involvement with this stranger, perhaps her engagement and eventual marriage to him (she refers to herself as a "bride" at one point), offers her access to these goods.

When the protagonist and her dashing escort arrive at the

Motorama, despite the extremely late hour, they find the showroom furnished with a full crowd of spectators milling around, investigating the new automobiles on display. While exploring the various GM cars, she is interrupted by the magical appearance of a striped apron around her waist and a male voice in the crowd calling out “Hey lady! Your apron’s showing!” Her male companion responds by suggesting, “Better get her into the kitchen quick!” carrying her off, and depositing her in the Kitchen of Tomorrow. Though she expresses enthusiasm about car ownership, she is less interested in spending time in the kitchen, objecting “Just like a man: You give him a break / And you wind up in a kitchen baking a cake.” Yet she cheers up when, touring the kitchen’s features, she finds that there is “no need for the bride to feel tragic / The rest is push-button magic.” This is no ordinary kitchen but rather one that will enable her to be “free to have fun around the clock.” After leaving her cake to bake and enjoying her day of leisure, the woman returns to the kitchen to find the cake not only baked but also iced and adorned with lit candles; so she makes a wish and blows out the candles. Like the kitchens available for purchase in the 1950s and like the automobiles making their debut at the Motorama, the Kitchen of Tomorrow is represented as offering fun and freedom, and the narrative that GM/Frigidaire establishes seems straightforward enough: Women can look forward to kitchens that minimize work. This narrative, though, raises the subversive possibility that women will not actually do anything productive with this freedom at all and suggests that if women are not in the kitchen there is nothing for them to do—nothing *worth* doing—but to enjoy limitless leisure.

Virtually every narrative move after the protagonist tours the Kitchen of Tomorrow and discovers that she is “free to have fun around the clock” is designed to negotiate a space between the promise of total freedom from housework and the transgressive threat of total female unproductivity that accompanies that promise. After the protagonist blows out the candles on her cake, the smoke clears and she finds herself on a stage, where she declares “Everyone says the future is strange / But I have a feeling some things won’t change!” The camera cuts to a large and appre-

ciative audience, presumably the spectators at the Motorama, who have now all gathered into neat rows. The audience begins clapping in rhythmic unison, and the protagonist performs a vampy “Dance of Tomorrow.” The rigorous containment of the possibility that women will not do anything useful with the time



saved by *Kitchens of Tomorrow* is thus accomplished by placing the female character on a stage and having her voluntarily and publicly assert her commitment to the status quo. That this intractability refers specifically to gender roles is supported by the dance that she performs following her assertion, which suggests that if anything does in fact change, it will not be women's general subservience to men's needs but rather will involve wives and mothers becoming more glamorous, more sexualized creatures, presumably because they are not exhausted by their kitchen labor. For her part, the protagonist is rewarded for her commitment to conservative gender norms by earning the appreciation of the entire body of spectators at the Motorama: no longer milling around like visitors at an exhibit, they have cohered into a public that applauds her actions. This *Dance of Tomorrow* is the only scene in the film not either a direct sales pitch or immediately and obviously relevant to the narrative of the film; it is the only scene that, on the surface at least, is completely disconnected from the goal of showcasing the Motorama. In fact, the gathering of the audience suggests that the heroine's dance is more interesting than any of the commodities on display and that, far from being gratuitous, the *Dance of Tomorrow*, framed by the dancer's declaration that certain things won't change, is the main attraction.

The thematization of this message continues throughout the film: A liberatory future for women is asserted and then retracted or, more accurately, rerouted into glamour and sexual desirability. At the end of the film, she and her male companion drive off into the future in their *Firebird II* prototype car over the techno-utopian *Highway of Tomorrow*, singing,

Tomorrow, tomorrow,  
our dreams will come true.  
Together, together,  
we'll make the world new. . . .  
But our love will not change, dear,  
it will be like a star burning bright  
lighting our way  
when tomorrow is today!

The film needs to reclaim the wonders of the future, and to do so it explicitly places the woman into a couple (though now outside of the domestic sphere), while the song the couple sings reiterates the insistence that things will not change, this time through the language of love, which reasserts the symmetry of gender roles in a context safely removed from the now-troublesome kitchen. Moreover, the masked mystery man turns out to be the main character's real-life husband or future husband: "Oh! It's you!" she exclaims when he reveals his identity. Although this statement locates her safely in a monogamous heterosexual relationship, it also exposes the erotic or even dangerous suggestion that the main character ran off in the middle of the night with someone *other* than her husband or fiancé, a possibility that does not seem particularly titillating until the assertion that the mystery man is a real-life human being relinks the dream sequence to that real world. That these two moves—the near-miss of a fantasy affair with or even abduction by a stranger and the revealing of that stranger as, in fact, safely familiar—happen in a single narrative moment both produces erotic potential and directs it into the lawful heterosexual couple, in which the husband as well as the wife is newly sexualized. Like the insistence that nothing will change, this futuristic fantasy is safely reterritorialized as merely an injection of glamour into familiar terrain, one enabled by advanced automobiles and appliances. The alibis of technology and romance become transcoded onto one another, and a consonance is established between the romance of the kitchen and the possibility of escaping from it. This consonance, in turn, covers over the fact that romance itself—which, after all, tends to exert a conservative pull ideologically—in this narrative seems to have become the only thing capable of keeping the woman in the kitchen.

### **The Day-after-Tomorrow Dream Kitchen**

In November 1943, *McCall's* magazine announced a Kitchen of Tomorrow contest, inviting readers to write a two hundred-word essay choosing their favorite of two kitchens: the Tried-and-True

Kitchen, featuring a continuous, all-white layout and the streamlined appliances available at the time, and the Day-after-Tomorrow Dream Kitchen, featuring an open plan, pedal-operated faucets, and glass cabinet fronts, oven, and refrigerator. In a corner of the contest announcement, “Jane” and “Sally” model essay responses. Jane likes the Tried-and-True Kitchen because “everything in it has been tried out and tested. . . . I’ve been dreaming for years about a new kitchen, and if I should win a prize in this contest, I’ll take my war bonds and hold them until the day I can remodel my old, outmoded cook room to look like this one. And then I’ll know that dreams come true.” For her part, Sally declares that “the war has already taught us that we must be open-minded and ready to adjust to changing times. This proposed [Day-after-Tomorrow Dream] kitchen suggests that change can be exciting and that there will be fine, worthwhile things in that postwar world we are dreaming of.” In addition to writing an essay, entering the contest required contestants to fill out a ten-page survey asking for standard demographic data and a detailed elaboration of their preferences in kitchen design ranging from open versus closed floor plans to whether they liked oven lights and where on ranges they wanted the control panel to be. It also asked them to quantify the sense of urgency they felt about purchasing each of the appliances discussed in the survey: “I must have one and will buy as soon as possible,” “I like and may get but not sure,” and so forth. The results of the survey/contest were published in book form as *What Women Want in Their Kitchens of Tomorrow: A Report of the Kitchen of Tomorrow Contest*, which seems to have been directed at an audience of kitchen appliance manufacturers and advertisers.<sup>9</sup>

If *Design for Dreaming’s* Kitchen of Tomorrow promises a transcendent future and then, insisting that nothing will change, redirects the vision of liberation into the alibis of glamour, romance, and the freedom of the highway, the *McCall’s* contest uses futurism to promise an absolute identity between consumers’ and producers’ needs and desires. I begin this section by examining this contest as a case study of the relationship between domestic consumerism and futurism, one that illuminates both

the complex and contradictory mechanisms underlying companies' declared allegiance to women consumers and the nature of the reciprocal allegiance they solicited. *What Women Want in Their Kitchens of Tomorrow* reconfigures the contest as a competition between kitchens, not contestants, noting that two-thirds of the almost twelve thousand respondents preferred the Tried-and-True Kitchen. This outcome is remarkable in that *Kitchens of Tomorrow* were intended to showcase the benefits of technological progress in American homes, progress ordinarily constructed as unambiguously desirable to consumers. Presumably market research had already established "what women want" accurately enough that the contest could have been rigged in favor of the Day-after-Tomorrow Dream Kitchen. Indeed, the introduction to *What Women Want in Their Kitchens of Tomorrow* explicitly situates the contest within the discourses of behavioral science, nationalism, and marketing, suggesting an intimate knowledge of the mechanisms by which female consumer desires are stimulated:

This contest was partly fashioned by war conditions. With an extreme scarcity market in house furnishing goods, it had become important to avoid stimulating readers to purchase the goods discussed. And still, we wanted to cater to the persistent reader interest in problems of home decorating. . . . The rooms photographed for the contest were chosen because they could quicken interest and discussion without stimulating immediate buying demands.<sup>10</sup>

Here the behavioral science approach is justified by the tensions between women's desire to consume and the sacrifices demanded in wartime. The implication is that neither kitchen would "stimulate" readers to buy because the Tried-and-True Kitchen was only slightly nicer than the one already owned by many readers, while the Day-after-Tomorrow Dream Kitchen was too futuristic to be the object of immediate desire. According to this stimulation-avoidance logic, the Tried-and-True Kitchen would win because the responsible *McCall's* editors wanted to keep feminine appetites for new products to a minimum, at a safely intellectual register, while still enabling war-weary housewives to fantasize about their postwar dream kitchens.

But *McCall's* was hardly practicing stimulation avoidance when it offered readers a choice between a futuristic kitchen and the more “classic” Tried-and-True Kitchen. Most glaringly, for many contestants even the Tried-and-True Kitchen had not been “tried”: Survey results show that about 23 percent of the contestants cooked with wood, coal, or kerosene as opposed to gas or electricity, while only 1 percent had an electric dishwasher and only about 15 percent had ever used one, and almost 25 percent did not have hot water in their homes.<sup>11</sup> Thus the Tried-and-True Kitchen was, for many women, a kitchen of tomorrow, a point made most poignantly by the contestant who called the Tried-and-True Kitchen “the very one I’ve dreamed planned and loved [*sic*] through several years of carrying water and lighting kerosene lamps in an old ramshackle house.” Along the same lines, although designers were beginning to see all-white, streamlined kitchens as yesterday’s fashion,<sup>12</sup> survey responses suggested that for many women they still evoked the clinical efficiency of hospitals, laboratories, and factories, qualities that probably looked a lot less dated to women who had never had access to them in the first place. This positioning of a kitchen that had been on the market for a decade or longer calls attention to the enormous gaps between the “discovery” and production of prototypes of new kitchen technologies (as represented by the Day-after-Tomorrow Dream Kitchen); their manufacture and availability in the marketplace (as represented by the Tried-and-True Kitchen); and their actual accessibility and use by a majority of women (as represented by the fact that many readers did not have a “tried-and-true” kitchen). The evocations of futurism in the Kitchen of Tomorrow contest, then, are ultimately more about a dream of increased purchasing power—Jane’s fantasy—than they are about technological progress.

It is telling, then, that the fictional Jane stresses the “dream” that will “come true” if she wins the contest, but in doing so refers not to the Dream Kitchen but to the Tried-and-True Kitchen. It is equally informative that Sally’s response, which favors the Day-after-Tomorrow Dream Kitchen, stresses the importance of being open-minded and insists that the “things” in the

postwar world will be “worthwhile.” These statements suggest that the “traditional-versus-futuristic” debate encouraged by the contest was covering over other issues recognized by even the contest designers’ ideal housewife. One, as the previous paragraph makes clear, was the issue of access. Another issue, one that surfaces more strongly in Sally’s words, is the possibility that in fact women did *not* assume that the changes in household technology would be good or that new things would be worthwhile. I argue that the frenzied postwar consumption that *McCall’s* anticipated in its concern about (over)stimulating women’s apparently ravenous desire was something that had to be fabricated, and that two mechanisms—the pedagogical effects that completing a lengthy and thought-provoking survey and essay produced, and the interplay between the Tried-and-True Kitchen and the Day-after-Tomorrow Dream Kitchen—facilitated this fabrication of need. Seen in this light, the contest was not about futuristic advances in kitchen technologies at all; rather, a narrative of progress served as a convenient vehicle for the real work of the contest, which was to survey women’s taste, to contribute to the construction of a taste culture around kitchen design, and to socialize women as consumers who actively participated in an exchange around consumption.

In asking women to complete a two-hundred-word essay and a ten-page questionnaire, the contest designers *did* want to know what women wanted in their kitchens, and the value of such data is illustrated by the publication of a book devoted to contestants’ responses. But asking women to state the precise contours of their desires also contributed to a project of producing women as consumers. The contest announcement itself is explicit about this pedagogical function, asking readers to “Imagine [themselves] getting dinner, cleaning up after it; taking care of [their] family first in one, then in the other” and telling them that they “will learn a lot” by entering the contest.<sup>13</sup> Contestants were not simply to choose the “classic” or “techno-” kitchen; they were to exercise their capacity to work within a system of consumer choices and constraints, and in that exercise they were being interpellated as consumers, individuals with specific tastes but

also members of an identifiable market/community with a responsibility to communicate their needs to the companies who could potentially satisfy them. On one level, the commodity fetishism that survey-contests like this one elicited from women was not about the desire for particular commodities but about participating in the logic of the system as such, as Jean Baudrillard argues in *For a Critique of the Political Economy of the Sign*<sup>14</sup>—and women who participated in the logic of the system were women who consumed more goods. On the other hand, particular consumer choices within these networks of meanings were significant because they contributed to the process of elaborating a taste culture of distinction.

In an era of a relatively new, rapidly differentiating market in appliances, this kind of survey assisted in socializing consumers through the shift from a focus on the existence of new appliances in their generic function or use-value (one would buy a refrigerator because one needed “refrigeration”) to a concern for issues that might be better characterized as related to “form” or value-added (aesthetics, status of brand names, features, and so on.)<sup>15</sup> Distinction benefited companies in that the more microscopic consumers’ abilities to distinguish among different features, the more demand for a large range of products would increase. Thus the system of pleasures, ideological domination, and class differentiation in an event like the *McCall’s* Kitchen of Tomorrow contest emerges out of the interplay among the pleasures of articulating the precise contours of desire for specific commodities, with all of the personal style and class meanings that these desire-decisions entail; the illusion of unfettered access to the companies that had the power to see to it that those desires were met; and the interpellation of women as consumers, subjects with a certain set of knowledge, pleasures, and responsibilities to both their families and the companies that claimed to want only to meet their needs.

In some respects, then, the *McCall’s* contest could have been any contest, survey, or other forum in which a magazine-mediated “dialogue” was established between consumers and producers, and the Day-After-Tomorrow Dream Kitchen’s futurism

was only one of many possible hooks on which such a contest could be based. But in other ways, the specific promise of Kitchens of Tomorrow and the narrative of technological progress they supported was central to the work they accomplished. The competition—and cooperation—between the Tried-and-True Kitchen and the Day-after-Tomorrow Dream Kitchen supported a relationship to temporality, technological progress, and consumerism that was promoted throughout the discourse of domestic appliance advertising during the postwar period. While examining the *McCall's* contest offers insight into the ideological work performed via a comparison of a “traditional” and a “futuristic” kitchen, to fully appreciate the mechanisms of promises and alibis within which Kitchens of Tomorrow orbited requires a sense of how the “kitchen of today” was marketed to women as the ongoing arrival of the future. World War II advertising prepared consumers for the futuristic rhetoric of the promise because wartime production had displaced kitchen appliance manufacturing, yet marketing efforts continued unabated. Advertisements and magazine copy like the *McCall's* contest and the Westinghouse ad promising “a bright new day . . . of living electronically” after the war positioned companies as sympathetic to readers desiring to consume but hampered by their patriotism. When factory production resumed, advertisements celebrated the arrival of this much-anticipated future. This logic blended into more technologically oriented promotion in ads throughout the postwar period. Optimism about technological progress abounded: technology was radically improving American domestic life, and this revolution was inevitable; all progress needed was time.

In practice, however, there was more bark than bite in many of these technological advances; gadgetry more often than not substituted for substantive progress. For every development on the order of no-frost refrigerator-freezers, there were a dozen developments like the 1957 Toastmaster Powermatic Toaster, whose claim to fame was that it not only popped up toasted bread but also automatically *lowered* bread into the toaster; or the 1958 Hotpoint Electric Range, with a musical thermometer that played

“Tenderly” when meat was cooked to the desired doneness; or Nu-Magic Ups-a-Daisies; or Colored Tel-a-Cook Lights.<sup>16</sup> Despite the promise of the toaster to save time or the range to take the guesswork out of cooking, their distinguishing features were of little practical value; yet they also embodied the emancipatory possibilities of technological progress through their very flamboyance. Similarly, design trends like streamlining and push-button control panels evoked modernity itself. The impressive bulk of streamlined appliances made clear references to the enormously powerful transportation machines that were transforming the world and defining the modern age. Likewise, if push buttons did not in the end enhance women’s speed in the kitchen, they *were* speed. Push buttons were computers; push buttons were the Bomb; they were industrial controls, James Bond movies, popular science; they were digital, not analog. Push buttons offered a dazzling visual display of *more control*, not just of the food cooking in the oven but of the postwar universe. These features enabled companies to substitute the appearance of what C. Wright Mills called technological obsolescence, the replacement of older technologies with new ones, for artificial and status obsolescence—respectively, deliberately designing appliances to have a short life span and designing them in such a way that they become disgracefully unfashionable within a short period of time.<sup>17</sup> Put another way, promises were converted into alibis through design priorities generating interesting, attractive, and marginally convenient features that made cooking more pleasurable in the present rather than enabling women to spend significantly less time in the kitchen.

This emphasis on artificial and status obsolescence suggests that gadgetry might have been a stopgap measure designed to keep women happy while designers developed more substantive changes, but it is not clear that if companies had been able to produce actual technological obsolescence, they would have done so. The very idea of giving women the opportunity to abandon kitchen labor remained controversial, even as the national contract of the postwar years promised this outcome to women, to the extent that it was never clear that emancipation of women

from kitchen labor was actually desirable to appliance producers, magazines, or, for that matter, family members. A 1957 *Industrial Design* editorial conveys the degree to which the gadgetry-versus-technology tension was actually explicitly viewed as one solution to the “problem” of what women would do without household labor:

Automatic ranges and one-step washer-dryers leave the housewife with a precious ingredient: time. This has come to be regarded as both her bonus and her right, but not everyone regards it with unqualified enthusiasm. Critics belonging to the woman’s-place-is-in-the-sink school ask cynically what she is free *for*. The bridge table? Afternoon TV? The lonely togetherness of telephone gossip? The analyst’s couch? Maybe. But is this the designer’s problem? Certainly it is absurd to suggest that he has a moral responsibility *not* to help create leisure time because if he does it is likely to be badly used. More choice in how she spends her time gives the emancipated woman an opportunity to face problems of a larger order than ever before, and this *can* transform her life, even if good design can’t. In any case, the designer does have a responsibility to fill leisure hours, and *any* hours, with objects that are esthetically pleasing.<sup>18</sup>

Taking on the perspective of the designer’s professional-ethical responsibility to society, this passage, like the narrative of *Design for Dreaming*, anxiously loops through an argument that raises and covers over a number of contradictions about the relationship between women’s appropriate roles and timesaving domestic technologies. It does so via a slippage between the timesaving benefits of well-designed, high-tech appliances (the potentially unproductive and even antisocial effects for which, the passage insists, the designer is not responsible) and the supposedly more neutral aesthetic pleasure of those objects, which it is his unambiguous duty to provide to women in times of both work and leisure. Significantly, the editorial does not deny that women might not make “good” use of free time yet abdicates responsibility for this potential social problem. Although the passage eventually seems to decide in favor of women’s right to benefit from domestic technology—and even hints at the possibility of a “larger

order” role for women—it ultimately abandons this controversy and lapses back into the less overtly political terrain of the aesthetic. Although women’s access to emancipatory goods was limited in part by the fact that the technology was not available then, it was at least as constrained by concerns about what women should do with their time, and the aesthetics and gadgetry of design obscured that controversy.

Kitchens of Tomorrow assisted in this project by suggesting that gimmicky features were *not* bells and whistles covering over the absence of substantive technological improvement—and even the social undesirability of such improvement. By emphasizing the realization of technological progress manifested in domestic appliances, corporations asserted to women that companies shared their interests. Consumer-preference surveys like the *McCall’s* contest supported the promises of progress by demonstrating to women a concern for their preferences; Kitchens of Tomorrow did so by offering a spectacle of proof that companies were hard at work on research and development to actualize these preferences in an environment of rapid technological progress. The Day-after-Tomorrow Dream Kitchen presented by *McCall’s* as a neutral representation of the future, for example, was sponsored by an industrial glass producer, Libbey-Owens-Ford.<sup>19</sup> Although the Day-after-Tomorrow Dream Kitchen’s most striking features are its cutting-edge appliances, the prodigious use of glass on the walls and cabinets—and its more incidental use on appliances—served to bridge form and function and thus constructed Libbey-Owens-Ford as a forward-looking company willing to invest its energies in products it did not even produce for the sole purpose of providing a kind of community service, giving consumers a glimpse into the future and thus making progress inseparable from its own corporate success. For their part, if women held up their end of the deal by being “responsible” consumers, by participating in market research, educating themselves about recent developments via women’s magazines and similar forums, and, most important, buying products, companies would be able to give them what they wanted, and they would be able to do so on schedule. In this respect, the promises

of advances in kitchen technology operated not as liberation but as disciplinary pressure; and Kitchens of Tomorrow were an alibi in relation to gender roles as well, providing a distraction not only from the unfulfilled promises of kitchen technology but also from the fact that as long as women's most important social roles were imagined to be those of wife and mother, the "labor of love" constructed through kitchen work would remain.

Kitchens of Tomorrow, then, helped to support a balancing act between the promise that appliances would liberate women from kitchen labor and a widespread commitment to conservative gender roles. The counternarrative to the promises of kitchen technology, in which women are liberated from kitchen labor but family structure remains perfectly intact, is most vividly illustrated by that most reliable of futuristic corporate propaganda machines, Disney, and specifically by the Carousel of Progress. Sponsored by General Electric and produced for the 1964 World's Fair in New York,<sup>20</sup> the Carousel of Progress, an early audio-animatronic attraction that features talking mechanical humans, animals, and appliances, is both a "play" and a "ride." As a play it faces the same difficulties *Design for Dreaming* does in trying to produce a sustained narrative of technological progress in which all parties win; rather than anxiously maneuvering across this terrain, it manages to suture nationalism, nostalgia, progress, family values, and corporatism into one sustained view of American family life. The narrative follows the life of one family in scenes set in their kitchens of the 1890s, the 1920s, the 1940s, and the "present day" (the 1960s in its original version); in each era the family itemizes the new electrical appliances in their home and the quality-of-life improvements these appliances have brought. The point of the play, not surprisingly, is to showcase the wonders of progress as brought to us by General Electric over the previous century or so. Progress thus equals specifically technological progress equals electricity generally and electrical domestic appliances in particular.<sup>21</sup>

The beneficiary of this progress, and the primary agent of the consumption required to benefit from the progress, is the heteronormative, suburban, American nuclear family: Mother,

Father, Daughter, and Son. Father narrates the show, reinforcing his position as head of the household and mediator between the public and the domestic spaces. In the 1890s, Mother observes that the new wash table limits her laundry time to five hours, leaving her more time for “canning and polishing the stove.”<sup>22</sup> Disney, clearly, is not afraid to declare that technological advances do not change the structure or balance of power in the American family: Mother will keep doing her domestic work, she’ll just be able to accomplish more of it; thus technological progress carries with it no threat whatsoever, indeed no substantive change whatsoever, at least on the domestic front. Once a narrative is imposed that requires some sort of statement by companies about the emancipatory possibilities of these domestic technologies, this play suggests, the companies will confirm that, in spite of the fact that technological progress will eliminate women’s domestic labor, they do not intend “freedom” to refer to women’s freedom from the domestic space. Rather, the discourse of freedom resonates in relation to consumerism. As Stephen M. Fjellman writes: “GE would have us believe that the way to progress—Disney’s central descriptive theme for the twentieth century—leads through the availability of emancipatory consumer goods. What makes people free are electric ovens, televisions, and weight-reduction machines—all available as commodities for household purchase.”<sup>23</sup>

Beyond the ideological work performed by narrative and representational theatrical elements of the Carousel of Progress as a “play,” the exhibit takes audience members for a “ride” because the audience section rotates around a central axis to reveal a new stage with each change of scene and decade. Though the show’s narrator claims that although “most carousels just go around and around without getting anywhere . . . on this one, at every turn, we’ll be making progress,”<sup>24</sup> the circularity and the vigorous control of the audience’s experience as represented by the enormous track on which the theater rotates operates as an apt metaphor for the alibis of kitchen technology. Even more dramatic is the fact that this show, set in Tomorrowland, focuses on a nostalgic vision of the *past*<sup>25</sup> and allows the robotic audio-

animatronic figures and the enormous, excessive display of the rotating theater, plus a diorama of a futuristic community visible from the exit ramp, to substitute for a vision of the future of domestic technologies. In “Mickey Mouse History: Portraying the Past at Disney World,” Mike Wallace offers the following logic of temporal progression at Disney World: “History was made by inventors and businessmen; the corporations are legatees of such a past . . . this pedigree allows them to run Tomorrow.”<sup>26</sup> This retrospective in Tomorrowland is also what enables Disney/GE to suppress the potential controversy of the “woman question”—what Mom will do with her time—because, in fact, Mom is already as liberated as she will get. Though it is obscured by the form of the show, there is no future here. With this in mind, it is easier to understand the placement of the Carousel of Progress in Tomorrowland, as well as the fact that this extravaganza of the wonders of progress is more technological in its form than in the technologies that it represents. We need only add to this mix the specifically nationalist image of this relationship between technological progress and corporatism, which would involve complementing Wallace’s description of Disney history with a reminder that, according to this logic, it was the freedom and incentive promoted by the nexus of democracy and capitalism unique to the American twentieth century that enabled this kind of technological progress.

In the postwar period, exhibitionism like Disney, World’s Fairs and Expositions, and Kitchen-of-Tomorrow displays were “mechanisms for discerning connections between disparate items . . . place[s] for framing world views” and “celebrat[ions of] the existing order of things in the guise of escape from it.”<sup>27</sup> They worked to suture corporatism (and its flip side, consumption), technological progress (as opposed to, even at the expense of, other kinds of progress), and nationalism (read as anticommunism, democracy, freedom as enabled by “emancipatory consumer goods”) into a hegemonic vision of the American Way of Life. In a fairly literal sense, domestic appliances did represent the American lifestyle—in the 1950s, 75 percent of appliances sold worldwide were consumed in the United States.<sup>28</sup> At midcen-

tury, US-produced domestic technologies were usurping the central exhibitionist status formerly occupied by European colonies at the turn of the century, a correspondence that, taken at face value, suggests that US public propaganda, having colonized US private life, was offering it for display and ideological sale. Via *Kitchens of Tomorrow*, companies did not just claim ownership of the future; they could become emissaries of that future, touring the nation and even the world on behalf of the US. They were even hurled at the Soviet Union like a cold war missile, as in the case of the RCA/Whirlpool Miracle Kitchen of Tomorrow, a \$250,000 model kitchen developed in 1956 that toured the US and Europe and in 1959 was a featured attraction at the American National Exhibition in Moscow, site of the infamous “kitchen debates” between Vice President Richard Nixon and Soviet Premier Nikita Sergeevich Khrushchev. The kitchen featured a central control panel that operated appliances via remote control; a dishwasher and serving cart that glided on tracks to the dining-room table; a squat robot that cleaned, waxed, and polished the floor; a microwave oven; a closed-circuit television that linked the kitchen to the nursery; and mood lighting. On the home front, in its press release RCA/Whirlpool admonished potential consumers that “when enough people indicate a desire to buy one of the model appliances presented, those appliances will be engineered for production and sale to the public.”<sup>29</sup> On the other hand, in Moscow the kitchen stood for America’s investment in its families (more accurately, national investments in corporations that made appliances for a US family market), its superior use of technology toward ends that mattered to its citizenry, and thus US superiority over the Soviet Union.<sup>30</sup> Meanwhile, the housewives of the future, the apparent beneficiaries of this American-style progress, were represented by actresses paid to hover among the futuristic appliances, not really doing nothing, but not doing anything, either: They opened refrigerator doors, poured beverages into glasses, pushed buttons. In the fantasy materialization of the promises of kitchen technology, these hovering women suggest that progressive approaches to technology will leave women with less to do, with the freedom enabled by “emancipatory consumer

goods”; conservative approaches to women’s social roles in a nation engaged in an ideological war with another superpower will leave them with nowhere to go.

### **The Dream, the Maid, and the Machine (or, Leaving the Meat Behind)**

The degree to which a machine approaches perfection is thus everywhere presented as proportional to its degree of automatism. The fact is, however, that automating machines means sacrificing a very great deal of potential functionality. . . . Automatism amounts to a closing-off, to a sort of functional self-sufficiency which exiles man to the irresponsibility of a mere spectator. Contained within it is the dream of a dominated world, of a formally perfected technicity that serves an inert and dreamy humanity.

—Jean Baudrillard, *The System of Objects*

In the 1966 film *The Glass Bottom Boat* (dir. Frank Tashlin, US), Dr. Bruce Templeton (Rod Taylor) is a space exploration executive who, just for fun, has used his space-age understanding of technology to construct a futuristic kitchen in his home. The kitchen proves a useful tool for seduction, because when he and love interest Jenny Nelson (Doris Day) retreat to the kitchen to bake a banana cake, Bruce is able to strut his technological stuff. The kitchen is coded as high-tech via a blue-and-gray color scheme (like the Motorama Kitchen of Tomorrow) and a profusion of frosted and textured glass (like the Libbey-Owens-Ford kitchen in the *McCall's* contest), but also by the enormous beeping, blinking panel that hangs overhead, signifying a computer. Bruce guides Jenny on a tour of the kitchen, beginning with what is apparently the main control panel—“It’s all very simple. Everything works from here, push-button style.” (After pushing buttons on the control panel, however, Bruce still adjusts each appliance as he uses it, suggesting that his futuristic kitchen actually requires *more* labor.) Along with Jenny, we learn that the kitchen is equipped with an infrared oven capable of “radiation equivalent to one thousand degrees Fahrenheit”; a photoelectric cell that zaps

waste into nonexistence; an egg beater that emerges from the countertop at the push of a button and after beating the eggs to the required sturdiness pivots to the sink, where it is automatically rinsed clean; and a squat, automatic vacuum cleaner that, upon detecting foreign objects on the floor, zips out of its garage to the jarring fanfare of a siren and fire-alarm bell and consumes the intruder while making grunting and slurping noises. Jenny is duly impressed by this technological display, exclaiming that “this kitchen doesn’t need a woman!” yet she is incapable of using the equipment. The banana cake she intended to bake is spat out of the oven as a lump of charcoalish material that falls to the floor and shatters, causing the vacuum cleaner to emerge and attack not only the remains of the cake, but Jenny—implying that Jenny herself is a foreign object who does not belong in such a kitchen. On the other hand, by the film’s end the vacuum cleaner has attacked Bruce as well, so perhaps the problem is not Jenny’s technical ineptness but the still-experimental quality of the vacuum cleaner. The only person who seems utterly at home in this kitchen is Templeton’s maid, Anna.

This film, a comedy whose slapstick humor relies on all kinds of technological mishaps, distills many of the constructions of kitchen technologies circulating during the postwar period: kitchen technology is awe-inspiring but also playful; automation is central to the coding of technological progress; the relationship between woman and kitchen is an ambivalent one; and the question of whether such a techno-kitchen is desirable (and if so, why) is, finally, left unanswered. Unlike the Motorama Kitchen of Tomorrow, packaged in a narrative of romance beyond the kitchen in *Design for Dreaming*, this futuristic kitchen facilitates romance *within* the kitchen simply because it is fun for the characters to play in. For the young couple in this film, it ultimately does not matter whether the futuristic appliances work at all. This freewheeling enjoyment stems in part from their class status—it does not matter whether the prototype appliances work because it does not matter whether Bruce and Jenny successfully prepare a meal because Anna the maid can clean up after them and cook something edible for them; and it does not matter that Bruce

Templeton has presumably spent millions of dollars producing this semifunctional one-of-a-kind kitchen because it does not seem to have made a significant dent in his bank account. Indeed, it is the masculine gadgety-ness of this kitchen that appeals to Bruce, who, after all, designed the kitchen, and that enables the couple to share some intimate and fun time there.

It is not a coincidence that the maid emerges as the only human who can control the vacuum cleaner or, for that matter, function comfortably in the kitchen. (I will return later to the question of why, in such a transcendent kitchen, a maid is even necessary.) Their association with domestic servants has been central to kitchen technologies' existence as signifying, material objects. The emergence of electric appliances during the first half of the twentieth century is correlated in complex ways with the gradual disappearance of domestic servants. Historians have variously argued that the appliance industry became financially viable because shortages of "good help" necessitated turning to "electronic servants" and that, on the contrary, owning appliances became one way to compete for good maids as they became increasingly hard to find or keep.<sup>31</sup> Postwar magazines, too, refer constantly to appliances as "electronic servants," and article after article is devoted to the topics of appliances' superiority over their paid, human equivalents, how appliances can be used most effectively so that they function as servants, and so on. (When asked how they felt about appliances, for example, two delegates to *McCall's* first Congress on Better Living in 1958 responded, "I'd choose an appliance over a maid any time; you *know* when your appliance isn't working" and "Appliances are people to me."<sup>32</sup>) This discourse suggested that the disappearing maid reemerged in electronic form as new kitchen technologies—with the homemaker occupying the role of "supervisor" of each in turn—but the story is not so simple. The complex and uneasy triangulation between the maid disappearing from the mid-twentieth-century domestic landscape, the dream of transcendence represented by futuristic kitchen technologies, and the homemaking women whose loss of the maid was supposed to be more than compensated for by new technologies is symptomatic of the

profoundly ambivalent relationship between women and technology in the postwar popular imagination. As such, it reflects contestation around appropriate versions of feminine subjectivity and serves as a cautionary tale about alibis of kitchen technology, the status of women in what Baudrillard describes as the “dream of a dominated world, of a formally perfected technicity” and the romance of technology.

The ambivalent relationship between figures of women and technology has deep roots; constructions of technology work alongside and through constructions of gender and sexuality. The “feminine principle” has long been coded in Western cultures as natural, with science and technology aligned with the “masculine.” However, as Andreas Huyssen observes in “The Vamp and the Machine,” in the throes of industrialization, as technology began to be seen as more of a threat to human life, it was transcoded with the feminine.<sup>33</sup> Following Huyssen, we might see technology as human control over the universe coded as masculine, and technology as a potential threat to that control, and especially as a monster exceeding human control and thus demanding a reassertion of that control, coded as feminine. In the postwar US, this dualistic alignment is complicated by the presence of new domestic technologies and the conceptual bifurcation of technology into at least two levels: the epic scale of nuclear-age technologies like those related to the cold war and the space race, with all of their simultaneously utopian and dystopian potential; and the more quotidian but equally profound transformations of everyday life by automobiles, televisions, and kitchens. On the one hand, women were aligned with the domestic sphere and a collection of values that operated to mitigate the external threat of technology; that is, they were the love, nurturance, and organicism that protected or compensated for the foreboding threat of nuclear war. Imagining women’s kitchen labor as occurring in rooms filled with humming high-tech machines undermined this function. On the other hand, in an era in which technological progress seemed to offer cures for all the world’s ills, including sickness, hunger, deprivation, and even labor, domestic technologies touted as lightening women’s

work loads were the perfect expression of the world-taming—and safe—potential of technology. Was this latter figure of technology now to reconfigure femininity alongside a safe and mundane vision of technology as supporting daily living? Were appliances not just “electronic servants” but their female version, electronic *maids*, suggesting that the technology itself was figured as feminine and indeed took feminine form? Were the female supervisors of these electronic servants now to be understood as operating comfortably in a roomful of machines? Or was technology still a fundamentally masculine force that was now available to serve women, but whose machinic qualities were to be downplayed in order to retain the image of women as organic creatures serving the bodily needs of their families?

These ideological questions take on material form in design trends like streamlining and push-button automation, which encoded the ambivalent relationship between women and technology. Based on aero- and hydrodynamics, streamlining originated in the desire to minimize the friction of moving objects like airplanes, ships, or cars against the air or water through which they moved via curvilinear shapes and smooth, polished surfaces. Streamlining appliances lent them a fetishistic power and an imposing phallic size that conveyed the high-tech in ways appropriately dramatic to these new high-status purchases. However, because it basically involved wrapping appliances in curvilinear shells, streamlining can also be read as disguising their more messily mechanical aspects to render them appropriate to the feminine realm.<sup>34</sup> For example, a 1946 Deepfreeze advertisement in *House Beautiful* stressed a streamlined freezer’s “non-jut rounded beauty,” encouraging two readings: the impressive, imposing shape of the freezer produced it as masculine supporter of the woman who uses it, while its curvilinearity echoed her feminine curves. According to this logic, the correspondence of, say, a refrigerator to a locomotive was that the former was a cute, diminutive, domestic version of the latter, a design decision throwing women an aesthetic bone as a substitute for “real” technology. Yet streamlining’s departure from a “gears-and-grease” aesthetic can also be read as an evolution away from noisy, dirty,

# Deepfreeze

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Opens at the top . . . cold can't spill out — and how beautifully efficient it looks in your home!



*The cold goes round and round*

Food is "wrapped" in a blanket of pure cold. No heat is better than 8 inches from the self-renewing source of cold. Substituting just twice a year.

Reach to the Deepfreeze — instead of reaching for your market basket.

With the Deepfreeze home freezer:

- you shop ahead — when prices are right and quality is rightest
- you cook and bake ahead — when you feel like cooking or baking
- you have more food, more kinds of food, better food in your home at all times.

Deepfreeze is the one home freezer with already proved dependability. . . . Look at its ideal size (more than 9 cubic feet — every inch for food — holding 322 pounds). . . . Learn about its low-cost operation. Look at that new, jet finished beauty.

You too will want the Deepfreeze kind of home freezing!

If you don't know the name of nearest Deepfreeze dealer, write us direct.

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and laborious present-day machines toward machines of the future, which were coded as quiet, clean, and effortless, as though they operated via magical rather than mechanical principles. From this perspective, streamlining anticipates the electronic, the transcendence of the physical body itself, even the virtual—the informatics of the cyborg<sup>35</sup> rather than the mechanics of the robot. Similarly, push buttons, ubiquitous in virtually all Kitchens of Tomorrow, including Bruce Templeton's, may have saved women marginal amounts of time but were also pleasurable because they tantalized with the possibility of limitless automation in the future. Pushing a button, of course, is essentially no less high-tech than turning a dial, the formerly standard type of control used on appliances such as blenders, ranges, and ovens, but the condensing of interaction between cook and machine to a single punch carried a significance beyond the actual technology employed or labor saved. If push buttons are to dials as digital is to analog, they, too, represent the triumph of technology in the form of electronic automation and suggest, by extension, that women are appropriate navigators of this kind of advanced equipment. Yet push buttons also limit the user's options. In a logic similar to the one that leads automobile connoisseurs to choose manual transmissions over automatic, automation is not necessarily a gauge of the technological comfort or prowess of its users. Thus the same technologies touted as making women's work easier can also be read more cynically as primarily valuable for preempting the mistakes women inevitably make when left to make more than the absolute minimum number of choices during the cooking process.

The material expression of ambivalence about women and technology extended beyond individual appliances to the room as a whole, where "streamlining" began to refer to a more generic minimalism. This trend had begun three decades earlier as a move away from discrete furnishings—icebox, sink unit, hutches, for example—toward the so-called continuous kitchen consisting of two horizontal planes. The more individual appliances could be tucked behind or into other surfaces the cleaner these lines would be. Simultaneously, as appliances became stan-

standard equipment rather than status symbols, their display became less important and they were redesigned with squared-off corners that integrated with the countertops and cabinets of the continuous kitchen without breaking up the lines.<sup>36</sup> These continuous kitchens shifted the primary object of streamlining from the individual appliance to the kitchen as a whole, but they retained its basic values by stressing smooth, seamless surfaces and by evoking motion through sweeping horizontal lines. They also shifted the focus from individual appliances to the system or environment as a whole, where the kitchen's value was measured by the efficiency with which components interacted with each other and with which they occupied space. On the aesthetic level again, then, we see the materializing of technological ambivalence. On the one hand, streamlining the kitchen meant the disappearance and/or incorporation of machines into the (often more purely decorative, colorful, matching) surfaces of the kitchen, making the space appear less clinically technical and more in keeping with traditional codings of femininity; and indeed, magazine articles often evoked the "slenderness" of streamlined kitchens in ways



Detail from a 1958 Frigidaire ad in *McCall's*.

that explicitly feminized them.<sup>37</sup> On the other hand, we can read this expansion of streamlining to mean that the logic of the machine had expanded to cover the whole kitchen: The kitchen itself became an aerodynamic machine on the move, not just a space populated by streamlined machines.

If examining design leaves unresolved the question of whether the relationship between women and technology was fundamentally friendly or antagonistic, approaching this question from the perspective of explicitly science-fictional representations offers different kinds of insight. In spite of its interest in the relationship between humans and technology, science fiction has been virtually silent on the subject of how food preparation is supposed to be accomplished in the distant future. When it appears at all, food tends to emerge fully formed from a wall à la *Star Trek's* food replicator or in the form of nutrition pills, sticks, or bars: it is food that is prepared by no one. This is not surprising, since one of the main thematics of technological progress as it appears in science fiction is bodily transcendence. In the introduction to *Foods of the Gods: Eating and the Eaten in Fantasy and Science Fiction*, George Slusser cites as the paradigmatic instance of imagining food and eating in science fiction as “the creation of a new race of eaters, who are no longer tied to world or flesh for their nourishment but, finally breaking the food chain . . . will feast on pure energy, and in doing so live long enough, and travel far enough, to discover genuinely new worlds.”<sup>38</sup> In this sense, science fiction reinscribes the binaries that cluster around the conventional male-female opposition by insisting on treating masculine characters, bodily transcendence, dramatic manifestations of technological progress, a frontier-style myth of the importance of discovering “genuinely new worlds,” and ultimately a quest for immortality; and it does so over and against women, the materiality of the body and its capacity for sensual pleasure, and home and family, all of which it in fact associates with death. In the extreme mythical epic narrative inscribed by many science-fiction representations, then, techno-kitchens are almost an oxymoron, or at the very least a misuse of the capacities of technology.

When futuristic projections of food preparation do address

the question of who or what will cover work contemporarily performed by women, they tend to use two main models: the condensation of the technology into a single figure, the robot-maid; or the penetration of the technology into the surfaces of the kitchen, that is, the advancement of appliances so that they take over virtually every aspect of cooking. Perhaps the most familiar version of the robot-maid appears in *The Jetsons* (dir. Joseph Barbera, William Hanna, and Charles Nichols) cartoon series that ran for a single season, 1962–63, but has aired in rerun almost continuously since then. Rosie of *The Jetsons* is a somewhat flattened metallic equivalent of her human counterpart (as the show's writers imagine her), complete with an occasionally bossy demeanor and a vaguely working-class accent. More generally, the robot as domestic servant began to emerge at world's fairs and similar venues by the late 1930s.<sup>39</sup> If appliances have long been represented as electronic servants in forums such as women's magazines, futuristic, and especially modernist, representations of machines outside of the private sphere have also relied on the trope of machine as a servant for humans. Human dreams of transcendence as represented in these texts imagine the robot as the highest form of machine. Put another way, the highest form of machine was imagined as the one that most closely approximated a human slave.<sup>40</sup> The robot encapsulated the promises of technological progress because it signaled the possible transcendence of human labor: with the increasing automation of production and abstraction of human labor into component parts in Taylorist assembly-line models, it seemed ever more possible that mass-produced robots could perform the roles of human factory workers. In contrast, the one-of-a-kind automaton was often a female figure. Perhaps the paradigmatic instance here is in Fritz Lang's classic construction of gendered and sexualized technological threat, *Metropolis* (Germany, 1926), in which the False Maria is an almost perfect machinic double of her human counterpart. Meanwhile, a miserable human proletariat still performs the simple and repetitive industrial labor that, one assumes, would be easy to replicate mechanically if doing so were only a priority in this world. As a figure constructed as both unique and feminized,

and mass-produced exclusively to perform undesirable labor, the robot-maid represents the combination and domestication of these two figures of the robot.<sup>41</sup>

The second form of sci-fi food preparation is like that in *The Glass Bottom Boat*: the technology is quantitatively different from what is available on the market, but expectations for its use remain the same. In this model, the designated user (in the film, ordinarily Anna, the maid) prepares food according to contemporary methods, but the appliances are more advanced and thus able to accomplish more without the assistance of the human meal choreographer. A more advanced manifestation of this form appears in Ray Bradbury's classic short story "There Will Come Soft Rains" (1950), about an automated house that continues to function long after its inhabitants have been killed by a nuclear bomb.

In the kitchen the breakfast stove gave a hissing sigh and ejected from its warm interior eight pieces of perfectly browned toast, eight eggs sunnyside up, sixteen slices of bacon, two coffees, and two cool glasses of milk. . . .

At eight-thirty the eggs were shriveled and the toast was like stone. An aluminum wedge scraped them into the sink, where hot water whirled them down a metal throat which digested and flushed them away to the distant sea.<sup>42</sup>

The advanced technology of the "breakfast stove" is signified by its ability to produce simultaneously food that is toasted, fried, percolated, and chilled, which impresses in the same ways that Bruce Templeton's kitchen in *The Glass Bottom Boat* does. The only significant difference between Templeton's kitchen, which apparently requires not only a human but a full-time maid, and the kitchen in this story, which functions without any human intervention whatsoever, appears to be the presence of mechanical arms (the "aluminum wedge") that move items from place to place. These two texts make explicit a suggestion that lurks in many representations of domestic futurism: Women's primary function in the intermediate stages between futuristic kitchens and contemporary kitchens, with their moderately advanced

kitchen technologies, is to physically move food from appliance to appliance.

We have already seen, in the RCA/Whirlpool Miracle Kitchen of Tomorrow described in the previous section, an image of women supposedly liberated by technological progress but stuck in the techno-kitchen because of the constraints of gender ideology. In these science-fictional visions of the future, we see a role reversal between women and appliances, where women shift from being the brains of the system, the controllers of the space and the work that occurs there, to being the servants of the machines who are supposed to serve them, basically unnecessary to the workings of the kitchen with the exception of the labor required to arrange materials so the machines can do their work. In a reversal of the prevailing logic, according to which machines offered emancipation from labor and in doing so enabled their users to become more human, the women in these kitchens look like nothing so much as attendants in a temple, servants of their own electronic servants. Even in this most utopian vision of the future of kitchen technology, in the presence of these increasingly transcendent machines, women become impotent and unnecessary, the “inert and dreamy humanity” Baudrillard describes in the epigraph to this section, unable to “discover genuinely new worlds” (Slusser on the sci-fi hero) nor even to “face problems of a larger order than ever before [that] can transform her life” (*Industrial Design*), because they have nowhere else to go.

In another real-world manifestation of this ideology, women become incorporated into the machine itself. So far I have argued that the flip side of push-button technologies is that users are relegated to button pushing even as they are “liberated” from other kinds of labor; that in terms of design the kitchen was being treated less as a combination of discrete appliances and more as a single system; and that robots appeared to be a promising manifestation of technological progress in part because the Taylorized workplace, with its abstraction of tasks into their component parts, had simplified labor enough that it was possible to imagine training a machine to take over motions performed by humans. In this atmosphere, a slippage creeps into the discourse

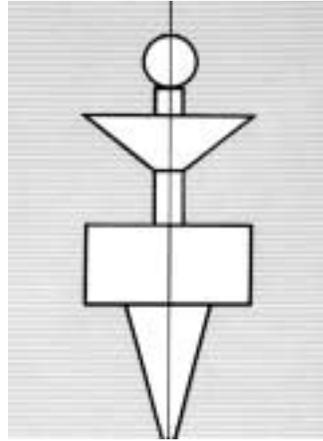
of streamlining such that it becomes unclear whether it is appliances or women's labor that is made more efficient. With this slippage in operation, the kitchen begins to resemble a sort of feminized, cooking-related ecosystem in which the human in it plays an important, but not entirely central, role. Indeed, these kitchen-design trends, constructed as representing technological progress, were paralleled by a corresponding disciplinary pedagogy of the mechanics of the laboring female form in relation to the space of the kitchen. Instructions for Taylorizing ("streamlining") one's kitchen work appeared in home economics-related textbooks and pamphlets, but they also appeared in magazines alongside images of streamlined kitchens. Women were encouraged to perform elaborate time-and-motion studies of their activities in the kitchen in an effort to maximize their efficiency. Placement of appliances, utensils, and workspaces was seen as key to this efficiency, but ultimately the responsibility lay with women themselves, who were expected to micromanage their bodily gestures based on research findings generated both by intellectuals and by their own research on themselves and their friends. An inefficient kitchen was no excuse for an inefficient housewife. (It did not offer an alibi.) The cumulative effect of these discourses was to mitigate the representations of women puttering aimlessly in perhaps-*too*-efficient kitchens by supplementing those images with a vigilance about bodily management and efficiency; and it was also to subordinate women to their advanced appliances, suggesting that women were not "exile[d] . . . to the irresponsibility of a mere spectator,"<sup>43</sup> but rather were functioning as human assembly lines. Some, though not all, of the ambivalence about appropriate relations between women and technology was thus submerged through the replacement or supplementing of technology in its more narrowly defined sense—the machines and progress that were heralded on so many fronts during the postwar period—by technologies in the Foucauldian sense, a bodily microphysics that produced rationalized workers.

Thus efficient kitchens did enable women to streamline their own labor, and an efficient-looking kitchen was better positioned to support the idea that what was targeted as the object of



metal of a million uses”—including, apparently, the homemaker, her daughter (not, I note, her son), and the family dog, all of whom are steel sculptures whose mechanized appearance implies that “what’s best about this kitchen” is that the women and pets are robots. The two female figures are faceless and abstracted, looking remarkably like textbook diagrams depicting the alignment of body parts of properly scientifically managed workers, and they are also in their element, materially speaking. Thus the maid (electronic or human) and the machine, both held forth as the promised emancipators of women, are both

incorporated into the homemaker herself. Similarly, in science-fictional representations of the future, as well as in the magazine advertisements that point toward the future in more quotidian ways, the status of the humans in relation to each other remains intact, especially in terms of class and gender. If kitchen technology advanced beyond a certain point during the postwar period—if, to express it another way, the alibis of kitchen technology enabled a material “being elsewhere” as well as an imaginary one—there would be no taking advantage derived as long as expectations about how women were supposed to fulfill themselves and their families did not change. Gadgets stand in for social change. The continuous gestures toward the future, representing women as transcending kitchen labor with the help of machines, were useless—and indeed, potentially dangerous—as long as the terms of women’s transcendence remained circumscribed within roles as wives, mothers, and maids.



Alignment of Body Parts

Illustration from Irma H. Gross and Elizabeth Walbert Crandall, *Management for Modern Families*, (New York: Appleton-Century-Crofts, 1954; 2d ed., 1963).

I have offered examples of a number of imagined end points in the development of kitchen technology: the star of *Design for Dreaming* playing tennis and then returning home to her baked, iced, and lighted cake; *The Jetsons'* robot-maid; food pills; the *Star Trek* replicator; Bradbury's fully automated kitchen with the mechanical arm. I want to close by tracing another trajectory through *Design for Dreaming* and *The Glass Bottom Boat*, with their reliance on seduction narratives that connect techno-kitchens with sexual and romantic liaison. Returning to the narrative in *Design for Dreaming*, although the protagonist insists that "It wasn't alarming when I saw my Prince Charming come into my bedroom [to take her to the Motorama]," the identity of the man in her room is not made clear until the end of the film, long after he has deposited her, at least temporarily against her will, in the kitchen. Moreover, while the protagonist's interest in the automobiles is clear from the beginning, she must be convinced that the kitchen is worthwhile—and when she finds out that it is, she must in turn convince the spectators that she is committed to traditional gender roles. Likewise, it is possible to read the entire narrative of *The Glass Bottom Boat* in terms of justifying the permissibility of sexual harassment in the workplace and the fantasy of its conversion to sanctioned sexuality and marriage. The film opens with Bruce Templeton accidentally catching Jenny Nelson's mermaid tail on his fishhook and stripping her naked from the waist down. Later, when the two meet again in Bruce's space exploration company, where Jenny works in public relations, Jenny's shoe heel is caught in a dust-catching grate and Bruce, leaning down to help her extract her shoe, slides his hand up her leg; that his hand travels altogether too far is suggested by the cut from his sliding hand to an indignant reaction shot of Jenny (and when she marches off, leaving him with her shoe, he protests "Where's your sense of humor?"). This sequence of gestures is repeated in the kitchen scene when Jenny is attacked by the vacuum-cleaning robot, which snakes its tube up her pants leg and then scurries off with her shoe. The parallels between the behavior of Bruce's invention and Bruce himself, the fact that this scene becomes the setting for Bruce and Jenny's first kiss, and the camerawork—

which includes crowding and cropping Bruce and Jenny into tight frames and filming one sequence of shots from an initially inexplicable angle that turns out to match the angle of vision of the vacuum-cleaning robot—all imply that the main purpose of the technology is to enable Bruce to get into Jenny’s pants.

The end point of this trajectory is, of course, *The Stepford Wives* (dir. Bryan Forbes, US, 1975), in which the techno-kitchen drops out of the narrative entirely to be replaced by the techno-wife. It is a film whose ideological challenge, in light of the argument I have made here, should be taken seriously. *The Stepford Wives* tells the story of Joanna Eberhart (Katharine Ross), who moves with her family to a wealthy, conservative suburban enclave, where the perfect homemaking, consuming, sexy, and nonfeminist wives turn out to be robots, constructed by their husbands under the guidance of the community’s men’s club. Led by a man named Diz, short for “Disney,” because he got his start working on audio-animatronic figures like those in the Carousel of Progress, the men kill and replace the more uppity human women with robotic doubles modeled after the women, at least physically. The mechanical wives of the film’s title—and their status as ideal women, from their husbands’ perspective—work as an allegory entirely consistent with the terrain I have described. The husbands can have their cake and eat it too, living in traditional, minimally applanced homes, where it is their wives who have literally become the kitchen technologies. Joanna and her best friend, Bobbie (Paula Prentiss), convince the Stepford wives, some of whom were formerly feminists, to attend a consciousness-raising session, and are dismayed to find that the women would rather raise their consumer consciousness by discussing spray starch and other household products. Similarly, whenever the Stepford wives are not in their homes, they are purchasing goods at the local supermarket. One of the first hints that one of the women has been murdered by and replaced with her robotic double is that she has fired her maid (with the explanation that taking care of her home is a task too important to be entrusted to someone else), illustrating the merger of wife, maid, and machine into one entity. The replacement of Bobbie is signaled in part by her newfound concern for the shine on her counter-

tops, and it is confirmed when, after Joanna stabs her with a kitchen knife, the False Bobbie apparently short-circuits in the act of making Joanna a cup of coffee, ricocheting blindly and mechanically around her kitchen, spilling coffee cups and various liquids on the floor, opening and shutting cabinet doors, and repeating “I thought you were my friend.” Shortly thereafter, Joanna herself is confronted and murdered by the new, mechanical (and larger-breasted) version of herself.

If we imagine this film not as a horror story involving the literal replacement of housewives by robots, involving murder and mechanical technologies, but rather as an allegory for the technologies of gender and consumerism that attempted to produce women as particular kinds of sexualized, consuming, and homemaking women, this story may not be as far from the fantasies of companies and traditional husbands as we’d like to hope. Like the romantic wife who does the Dance of Tomorrow in *Design for Dreaming*, the Stepford wives are housewives who can also be compelling objects of desire. Like the intended audience of the *McCall’s* contest, they make sure to educate themselves as consumers about the latest products they can purchase in their pursuit of the perfect home environment for their families. And they are the subjects of technologies that make their own appliances obsolete; they are no longer the audience of the promises of kitchen technology but rather have come to embody the promise, one now made to husbands.

### **Notes**

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1. *Design for Dreaming* (1956) was produced by Victor D. Solow, MPO Productions, for General Motors with Thelma “Tad” Tadlock (Woman) and Mark Breaux (Man). The film, in its ten-minute entirety, is available on video in *You Can’t Get There from Here: Ephemeral Films 1946–1960*, compiled by Richard Prelinger (Los Angeles: Voyager, 1987). The figure of 8 million people comes from *Business Screen* magazine, cited in Rick Prelinger, *The Rainbow Is Yours*, vol. 1 of *Our Secret Century*, CD-ROM series (New York: Richard Prelinger Software, 1995).
2. It is unclear to what extent the Motorama featured currently available models of Frigidaire kitchen appliances; the seven *New York Times* articles that covered the Motorama (all by Bert Pierce, 8–25 January 1956) barely mention appliances other than those in the Kitchen of Tomorrow—which in itself suggests that the Kitchen of Tomorrow was assumed to be significantly more interesting than actual, extant kitchen technologies. These newspaper sources are reproduced in their entirety in the *Design for Dreaming* notes in Prelinger, *The Rainbow Is Yours*. Also, it seems significant that George M. Humphrey, then secretary of the treasury, found the Kitchen of Tomorrow to be the most exciting exhibit during his tour of the Motorama—perhaps suggesting that futuristic appliances were good for the nation’s fiscal health even though they were not actually for sale.
3. See Michel Foucault, *Discipline and Punish: The Birth of the Prison*, trans. Alan Sheridan (New York: Vintage, 1979), and Teresa de Lauretis, *Technologies of Gender: Essays on Theory, Film, and Fiction* (Bloomington: Indiana University Press, 1987), especially the chapter on “The Technology of Gender.”
4. See de Lauretis, *Technologies of Gender*, 26. That space-off tells us a good deal more about the ideal female subject, as wife and mother projected and produced by postwar family values, and as consumer projected and produced by companies, than it does about the actual behaviors and beliefs of women who purchased and used kitchen technologies. It tells us still less about the behaviors and beliefs of “women” as a group, huge numbers of whom, even in the relative prosperity of the 1950s, were not imagined as part of the audience of promotional discourses, an audience that was assumed to be white Anglo, married with children, and possessing disposable income.

5. For more on the effects of improvements in household technology on women's labor, see Ruth Schwartz Cowan, *More Work for Mother* (New York: Basic, 1983), and Susan Strasser, *Never Done: A History of American Housework* (New York: Pantheon, 1982).
6. Since the successful production of the private space as a safe haven untroubled by the traumas and "messiness" of the public sphere is generally a goal enabled by upward mobility, the maternal labor of love also worked to reproduce the visible markers of class status.
7. Jean Baudrillard, *The System of Objects*, trans. James Benedict (New York: Verso, 1996), 77–80.
8. On the parallelism between cars and kitchen appliances, particularly refrigerators, see Karal Ann Marling, *As Seen on TV: The Visual Culture of Everyday Life in the Fifties* (Cambridge: Harvard University Press, 1994); Ellen Lupton and J. Abbot Miller, *The Bathroom, the Kitchen, and the Aesthetics of Waste: A Process of Elimination* (New York: Kiosk, 1992); and Penny Sparke, *Electrical Appliances* (London: Unwin Hyman, 1987).
9. *What Women Want in Their Kitchens of Tomorrow: A Report of the Kitchen of Tomorrow Contest Conducted by McCall's Magazine*, ed. Mary Davis Gillies (New York: McCall Corporation, 1944).
10. *Ibid.*, 3.
11. Although virtually all of the components of late-twentieth-century kitchens were technically available before World War II (the main exception being the microwave, and even it was on the market by the late 1950s), as the above survey results suggest, they did not become standardized in US homes until after the war's end. According to Cowan, electric refrigerators were available for purchase in the 1910s but were prohibitively expensive for all but the very rich; by 1941, 52 percent of American households had some form of mechanical refrigeration (electric, gas, or kerosene), but this number had increased to about 80 percent by as early as 1951 (*More Work for Mother*, 94, 196). These figures are particularly important, given the enormous lifestyle changes enabled by having a kitchen equipped with, say, a mechanical refrigerator rather than an icebox or no refrigeration at all, or a range operated by gas or electricity rather than a wood-burning stove.

12. See, for example, J. Gordon Lippincott's *Design for Business* (Chicago: Paul Theobald, 1947), 39.
13. Similar mechanisms were at work in parallel discourses not of celebration but of complaint, for example at the *McCall's* Congress on Better Living, inaugurated in 1958. One hundred women, chosen by virtue of having recently won contests, were flown to Washington, DC, to discuss homemaking issues. Congress "delegates," described by one manufacturer as "represent[ing] the dominant middle-income families that set the pattern of living and spending in the United States today," complained about flimsy refrigerator parts, false advertising claims, the difficulty of cleaning overly ornate appliances, and so on, while media and corporate representatives listened in. See "100 Housewives Speak Their Minds on Housing, Appliances, Parlors, and Plumbers, on Husbands, Mortgages, Do-It-Yourself Projects, at *McCall's* First Annual Congress on Better Living," *McCall's*, March 1958, 139–144.
14. "The fascination, worship, and cathexis . . . of desire and, finally, even pleasure . . . devolve upon the system and not upon a substance" (Jean Baudrillard, *For a Critique of the Political Economy of the Sign*, trans. Charles Levin [St. Louis, MO: Telos, 1981], 93). De Lauretis discusses a similar mechanism in *Technologies of Gender*: Each time a person checks the M or F box on a form, s/he reinscribes her- or himself as a gendered person; the act of marking marks the subject, and reiterates the centrality of the system of gender (11–12). On 1950s market-research categories, see chapter 9, "The Sexual Sell," in Betty Friedan's *The Feminine Mystique* (New York: Norton, 1963; New York: Laurel, 1984).
15. Pierre Bourdieu, *Distinction: A Social Critique of the Judgement of Taste*, trans. Richard Nice (Cambridge: Harvard University Press, 1984); originally published as *La distinction: Critique sociale du jugement* (Paris: Les Editions de Minuit, 1979). Bourdieu describes consumption "as an act of deciphering, decoding" (2) and states that "nothing is more distinctive, more distinguished, than . . . the ability to apply the principles of a pure aesthetic to the most everyday choices of everyday life, e.g., in cooking, clothing or decorations" (2, 5).
16. The Nu-Magic Ups-a-Daisy is featured in a 1951 Gibson Range ad, *Better Homes and Gardens*, January 1951, 80; Colored Tel-a-Cook Lights are featured in a GE Keyboard Cooking Ranges ad, *McCall's*, April 1958, 157.

17. See C. Wright Mills, "The Man in the Middle: The Designer," in *Power, Politics, and People: The Collected Essays of C. Wright Mills*, ed. Irving Louis Horowitz (New York: Oxford University Press, 1963), 374–86.
18. "Materialism, Leisure, and Design," *Industrial Design* 4.12 (1957): 33–34, cited in Mary Beth Haralovitch, "Sitcoms and Suburbs: Positioning the 1950s Homemaker," *Quarterly Review of Film and Video* 11 (1989): 61–83.
19. The kitchen was being vigorously promoted in magazines like *Life* and *Better Homes and Gardens*, in a Paramount popular-science short, and in department stores across the country, where it was seen "live" by more than 1.6 million people. See Corn and Horrigan, *Yesterday's Tomorrows: Past Visions of the American Future*, ed. Katherine Chambers (New York: Summit; and Washington, DC: Smithsonian, 1984), 80.
20. After its display in New York the Carousel of Progress was moved to Disneyland's Tomorrowland and finally, in 1975, to the Tomorrowland at Walt Disney World. For more on Disney and the Carousel of Progress, see James H. Bierman, "The Walt Disney Robot Dramas" in the *Yale Review* 66.2 (1976): 223–36; Alan Bryman, *Disney and His Worlds* (New York: Routledge, 1995); Stephen M. Fjellman, *Vinyl Leaves: Walt Disney World and America* (Boulder, CO: Westview, 1992); Michael Sorkin, "See You in Disneyland" in *Variations on a Theme Park: The New American City and the End of Public Space*, ed. Michael Sorkin (New York: Hill and Wang, 1992), 205–32; Mike Wallace, "Mickey Mouse History: Portraying the Past at Disney World," *Radical History Review* 32 (1985): 33–57; and Alexander Wilson, *The Culture of Nature: North American Landscape from Disney to the Exxon Valdez* (Cambridge, MA: Blackwell, 1992), especially chapter 5, "Technological Utopias: World's Fairs and Theme Parks," 157–90.
21. A comparison of representations of technological progress in the Carousel of Progress with those on display at Epcot center, agriculture, virtual reality, and a range of communications-oriented technologies, reveals GE's vision of the miracles of technology to be a limited one even within the Disney paradigm of corporatist techno-nationalism.

22. By the 1970s refurbishment of the show, *Mother* was using some of her spare time to volunteer on the “Clean Waters Committee.” See Bierman, “The Robot Dramas,” 234.
23. Fjellman, *Vinyl Leaves*, 80; Fjellman is quoting Wallace’s “Mickey Mouse History,” 39.
24. Quoted in Bierman, “The Robot Dramas,” 224.
25. More than one observer has noted the play’s similarity to Thornton Wilder’s *Our Town* (1938).
26. Wallace, “Mickey Mouse History,” 47.
27. Steven Rugare, “The Advent of America at EPCOT Center,” in *Cartographies: Poststructuralism and the Mapping of Bodies and Spaces*, ed. Rosalyn Diprose and Robyn Ferrell (Sydney: Allen & Unwin, 1991), 104; Sorkin, “See You in Disneyland,” 208.
28. Marling, *As Seen on TV*, 255.
29. Quoted in Corn and Horrigan, *Yesterday’s Tomorrows*, 79.
30. Nikita Sergeyevich Khrushchev was not impressed by this kitchen. He is reported to have said, “Don’t you have a machine that puts food into the mouth and pushes it down? . . . These are merely gadgets” (“Special International Report: Encounter,” *Newsweek*, 3 August 1959, 16). For more on the kitchen conference, see “When Nixon Took On Khrushchev,” *US News and World Report*, 3 August 1959, 36–39; “The New Diplomacy,” in the “National Affairs” section of *Time*, 3 August 1959, 11–15; Marling, “Nixon in Moscow,” chapter 7 of *As Seen on TV*; Corn and Horrigan, *Yesterday’s Tomorrows*, 81; and Elaine Tyler May, *Homeward Bound: American Families in the Cold War Era* (New York: Basic, 1988), 16–19.
31. See, for example, Cowan, *More Work for Mother*, especially 119–27, and Penny Sparke, *Electrical Appliances* (London: Unwin Hyman, 1987).
32. “100 Housewives Speak Their Minds,” *McCall’s*, March 1958, 139–44.
33. “Woman, nature, machine [became] a mesh of significations which all had one thing in common: otherness; by their very existence they raised fears and threatened male authority and control” (Andreas Huyssen, “The Vamp and the Machine,” in

*After the Great Divide: Modernism, Mass Culture, and Postmodernism* [Bloomington: University of Indiana Press, 1986], 70).

34. For a lengthier discussion of the relationship between streamlining and packaging, see Lupton and Miller, *The Bathroom, the Kitchen, and the Aesthetics of Waste*. The authors read streamlining as an organic excretory aesthetic transcoded with waste in the realm of consumer culture, through increased packaging, planned obsolescence, and so on.
35. See Donna Haraway, "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century" in *Simians, Cyborgs, and Women: The Reinvention of Nature* (New York: Routledge, 1991), 149–81.
36. The highest form of this design strategy was the customized built-in appliance, and the "lowest" form was the prefab kitchen that came with appliances already built in. The difference between the two was that in the first case the consumer could select individual appliances to be built in, but prefab kitchens came with "preselected" appliances. This status gulf between two design approaches with similar aesthetic effects suggests that style and "distinction" still overrode the tendency toward unifying the kitchen into a single surface.
37. See, for example, "A Kitchen That's Streamlined," *McCall's*, January 1959, which describes the title kitchen as "Slim and glamorous as a fashion queen . . . a marvel of efficient planning" (102–3).
38. George Slusser, "Introduction: Of Food, Gods, and Men: The Theory and Practice of Science Fictional Eating," in *Food of the Gods: Eating and the Eaten in Fantasy and Science Fiction*, ed. Gary Westfahl, George Slusser, and Eric S. Rabkin (Athens: University of Georgia Press, 1996), 12. In the same volume, Frank McConnell takes this observation one step further: food, he says, represents death; imagining immortality requires imagining the transcendence of the body with all of its appetites and all of its materiality; and so the absence of food in science fiction represents the abjection of death ("Alimentary, My Dear Watson: Food and Eating in Scientific and Mystery Fiction," 200–212).
39. Corn and Horrigan, *Yesterday's Tomorrows*, 74–75.

40. Machines that transcended this level of existence, on the other hand, were the stuff of dystopian technology-gone-awry stories; on the whole, it has been difficult (or perhaps just less interesting) for science-fictional texts to imagine machines as anything other than idealized servants without their own desires or as desiring machines that dream of dominating humans.
41. Given their historical overrepresentation as real-life domestic workers and despite the clear attempt to signify Rosie's status as a vaguely white-ethnic, working-class mechanical maid, women of color are notably absent from representation as science-fictional domestic workers, or, for that matter, in any capacity whatsoever in the women's magazines I researched. I do not make this observation to suggest that robotic science-fictional maids should have been constructed as possessing racialized markers in order to correspond more closely to reality. Rather, I find remarkable the invisibility of women of color as domestic workers across both of these genres, particularly given the visibility of the general category of "maids" in the magazines. My interpretation of this phenomenon is that shame, denial, fear of being racist, and/or a rejection of topics considered "political" banished any mention of race from these materials. The most socially acceptable way to address race was not to address it at all (a view shared by many white Anglos today). This abstraction of the maid to a racially "unmarked" category was particularly essential in a sci-fi discourse that openly fantasized about robotic servants/slaves. To be at all palatable, the sci-fi fantasy had to be dissociated from the actual historical conditions in the US that produced African Americans as slaves and then, later, as significantly more likely to be domestic workers. To imagine maids of the future as African American is almost horrifying because it reanimates that connection between history and fantasy.
42. Quoted in *Beyond Armageddon*, ed. Walter Miller and Walter Greenbery (New York: Fine, 1985), 254–55. The story highlights the tension discussed earlier in this section between the benign promises of domestic technology and the uncannily horrifying threat of nuclear war. Although the home's inhabitants remain only as negative shadows burned into the wall of the home, frozen in recreational motion (Mom and Dad gardening; daughter and son playing ball), the home continues to cater to their every whim as it has been constructed to do,

down to lighting cigars and reading poetry. The parallel tension embodied in the home itself is between its “sublime disregard for the situation,” as the narrator describes it in a slightly different context (259) and the poignance of a personified machine system dying in the absence of human intervention, suggesting that perhaps the technology did “care” on some level.

43. Baudrillard, *System of Objects*, 110.

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