



FOOD & FOODWAYS: LOOKING AHEAD

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FOOD AND FOODWAYS

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LETTER FROM THE EDITORS

We are excited to become editors of *Food and Foodways* on the threshold of the twenty-first century and the journal's twentieth anniversary. We are proud to assume leadership of a journal that has published so much fine scholarship over the past seventeen years and whose development portrays much of the growth of food and culture studies. We will continue to publish interdisciplinary scholarship across the social sciences, humanities, and sciences from scholars working around the globe.

We want to recognize the work of the *Food and Foodways* past editors: Maurice Aymard, Claude Grignon, Steven Kaplan, and Françoise Sabban who provided energy and intellectual vision to the journal for years. They produced a high-quality journal and a solid foundation on which to build as food has moved from the periphery to the center of scholarly interest.

Eating and drinking are salient issues of public policy and private concern and are fertile grounds for research. Food participates in the definition of community; it constructs identity and gender; it fastens the hold of religion on people's minds. Foodways provide meaning to different actors who produce, appropriate and interpret foods and use them as a means of communication. We continue to be interested in research on how food mediates social exchanges, shapes the workings of power, establishes quotidian rhythms, defines significant places, and conveys meaning. We encourage research on food provisioning, shortages, and security, on food safety and quality, on globalization, and on the encroaching culinary uniformity that threatens our consumer societies.

These are auspicious times for *Food and Foodways* to become the leading scholarly periodical on the history and culture of human nourishment. We are pleased that Routledge, a scholarly publisher of high repute, now publishes the journal. Routledge is giving us full support to spread our reach and publish four issues per year. To help us generate intellectual ferment and excitement, we have assembled a new editorial board of active and committed scholars who have generously promised their time and energy to promote the journal. Assuring the high scholarly quality and wide disciplinary range of our publication not only depends on our editorial board, but also on our readers and potential authors. We encourage you to email us your ideas, submit your work, and spread the word.

It is our aim to lead a journal that serves as a meeting ground for different disciplines to engage in scientific debate and confrontation, where criticism contributes to mutual enrichment, and where systematic comparisons across cultures and historical periods stimulate further research. It is a challenge that we take up wholeheartedly, and we hope that you will join us in this exhilarating intellectual enterprise.

Martin Bruegel

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HALF-LIVES AND HEALTHY BODIES: DISCOURSES ON “CONTAMINATED” FOOD AND HEALING IN POST- CHERNOBYL UKRAINE¹

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In Ukraine, the 1986 Chernobyl nuclear accident lives on in the collective memory as both a conscious and unconscious element of everyday life. “Radiation,” “contaminated,” and “dirty” are words that one hears often in Ukraine, especially in reference to food. The production and consumption of food additives and pharmaceuticals called “radioprotectors” are responses to the collective fear among Ukrainians that they continue to ingest “contaminated” foods, even fifteen years after the nuclear accident at Chernobyl. Grounded in ethnographic research in Kyiv, Ukraine, this article examines people’s experiences of post-Chernobyl food consumption, focusing particularly on the phenomenon of radioprotectors. I examine the politics of post-Chernobyl eating by showing how certain food discourses and practices index critiques of the state, science, and the market. I also point out inequalities in consumption in Ukraine and explore how using radioprotectors allows persons to establish particular class identities in the invention of their post-socialist, post-Chernobyl selves.

“We’ll never know what real damage Chernobyl has wrought,” said Ludmila, a doctor at Kyiv’s Clinic of the Radiation Register, where the bodies of Chernobyl victims are examined, scanned, and evaluated on a yearly basis. “Chernobyl is like a big experiment, and all of us are reluctant lab rats.” Fifteen years ago, on April 26, 1986, an accident at the V. I. Lenin Nuclear Power Plant at Chernobyl, Ukraine, resulted in the release of millions of curies of radionuclides such as iodine-131, cesium-137, and strontium-90 (Chernousenko 1991:viii). In Ukraine, over 90 million acres of land—14 percent of the country’s total area—were contaminated with radioactive

cesium-137, with contamination levels ranging from over one curie per square kilometer to more than 15 curies per square kilometer (Page et al. 1995:143; Marples 1993:3).

Residents of Kyiv, the capital city located a mere 72 miles from the damaged reactor, were not told of the accident until April 29th, three days after the event. The first health warning concerning the dangers of radioactive fallout was issued only on May 5th (Marples 1988:114–15). By that time, Kyiv's children had been forced to march in the annual May Day parade in the Soviet regime's efforts to maintain an air of normalcy. The parade took place during a time when radiation levels in Kyiv were highest. Lydia, a physicist, told me: "That was when we really began to question the Soviet system. We realized that the regime was not working for *us*. The interests of the people were not important." Indeed, scholars such as Catherine Wanner (1998:33) and Roman Solchanyk (1992:xiii) cite the Chernobyl catastrophe as one of the major catalysts that ignited the struggle for national independence in Ukraine, which began to gain momentum in the late 1980s.

While many informative studies of the political, social, and health consequences of Chernobyl have been undertaken (Marples 1988: 1991a; 1991b), less research has been conducted to examine the power-laden discourses that Ukrainians take up in their attempts to counter these ill effects. This article is in part an attempt to contribute such a focus to the literature on the effects of Chernobyl. Today, amidst the various crises spawned by Chernobyl and the collapse of the Soviet Union, Ukrainians are refashioning themselves at the levels of personhood, the body, and the nation. The Chernobyl accident led persons like Lydia to reexamine their relationships with the Soviet regime; it also resulted in the rise of new "body cultures" (Brownell 1995; Eichberg 1998) in Ukraine and other states affected by the disaster. Anthropologist Adriana Petryna (1995) for example, has written about the ways in which the catastrophe produced uncertainties about science, disease, and mortality that transformed Ukrainians' modes of inhabiting their bodies.

In my research on the legacy of Chernobyl in Ukraine, I have been especially interested to examine how debates and practices concerning Chernobyl and its effects reflect state-citizen relationships that are fraught with tension. In this article I will consider post-Chernobyl food consumption as a lens through which to explore a variety of discourses produced and reproduced by Ukrainians. The article will focus primarily on food discourses as reflecting critiques of the Soviet and Ukrainian states for failing to adequately care for citizens, and also as indexing ambivalent attitudes toward the role science should play in everyday life. Other topics explored include the invention of post-socialist/post-Chernobyl selves through food discourses and

practices that speak to class identities and inequalities in food consumption, particularly the consumption of “clean” and “radioprotective” foodstuffs.

CHERNOBYL, FOOD, AND PUBLIC HEALTH

Following the Chernobyl accident in 1986, the territory around ground zero was divided into three zones that were delineated according to levels of radioactive contamination. The most contaminated zone is the so-called “exclusion zone” or “dead zone,” which surrounds the Chernobyl nuclear plant and covers a total area of 4,300 square kilometers. This zone is also called the “30-kilometer zone,” since it includes the territory within 30 kilometers of ground zero in all directions. The exclusion zone of “obligatory evacuation” and is considered too contaminated to be fit for human life. Nevertheless, as of 1995, approximately 1,000 so-called “partisans” had returned to the 30-kilometer zone and had taken up residence in their former homes (Sayenko 1996:147).²

The second zone is also theoretically a zone of obligatory evacuation, despite the fact that hundreds of thousands still live in the second zone today. The third zone, the zone of “voluntary” or “free-will” evacuation, exhibits contamination levels of between 5 and 15 curies per square kilometer. This zone is also home to hundreds of thousands of residents. Officially, residents of the second and third zones are entitled to state-provided housing in a “clean” area should they choose to relocate. In practice, the government is financially unable or unwilling to provide this compensation. Although according to the Chernobyl “liquidation” program (the official strategy to rid Ukraine of the ill effects of the nuclear disaster) 250,000 persons should have been relocated from contaminated zones, only half this number were actually evacuated. This means that at least 125,000 persons in Ukraine still live in areas significantly contaminated by radionuclides (Sayenko and Prylypko 1996:123).

Millions of others in Ukraine, including the residents of Kyiv, live in conditions of long-term exposure to low-dose radiation (Greenpeace 1994:31; Institute for Experimental Radiology 1998:1). Because of the nature of the radionuclides released during the accident, the ill effects of the disaster will be long-lived (cesium-137 has a half-life of 30.1 years; strontium-90 has a half-life of 28.6 years) (Mould 1988:118). Fourteen years after the nuclear accident, intake of radionuclides is almost exclusively a result of drinking contaminated water and milk and eating foods grown in contaminated soil.³ According to the Soviet-era data of the radiological sec-

tion of the sanitary epidemiological department (Rus. *sanepidstantsiia*),⁴ during the last two-thirds of 1986 (that is, after Chernobyl), in the Ukrainian S.S.R. levels of strontium-90 in foodstuffs rose significantly from 1985 levels. Levels rose significantly in staples of the Ukrainian diet: nine times in milk and nearly four times in wheat bread and potatoes (Knizhnikov et al. 1988:69).⁵ It was concluded that the average citizen's daily intake of cesium-137 and cesium-134 after Chernobyl increased seventy times over (Knizhnikov, et al. 1988:70).

While measures were taken by the Soviet regime to monitor food contamination immediately after the disaster and continuing until around 1995, such efforts have been largely abandoned, in part because of a lack of economic resources. Until 1995, food vendors at Kyiv's food markets were required to have their products measured for radiation contamination, and to receive a certificate showing the level or radionuclides present. Buyers could then ask vendors to see their certificates and feel somewhat confident that they were buying "clean" foods.⁶ No such measures are in force today, and residents of Kyiv have no assurance that the fruits, vegetables, meat, milk products, and the like that they purchase from vendors at the city's large bazaars have not been grown in contaminated regions. Many food manufacturers place labels on their products reading "radiation control guaranteed," or "ecologically clean." I found, however, that many consumers doubt the truth of these claims.⁷

People refer to food suspected to have been grown in radiation-laden soil as "dirty" (Ukr. *brudnyi*; Rus. *griaznoe*), but radionuclides are not, of course, "ordinary" dirt. Radiation is invisible, odorless, and tasteless. It is at once everywhere yet nowhere, and its consumption in food products—especially for those living near Chernobyl—is practically unavoidable. While many city-dwellers made efforts immediately after the accident to acquire and consume foods deemed "clean," such evaluations have given way to other, more pressing concerns. Amidst the various postindependence economic and social crises, most Ukrainians are compelled to worry more about putting food on the table than about the "ecological state" (*ekolohichni stan*) of that food. Radiation surveillance of foodstuffs is a rare luxury, as is calorie counting in a country where the average monthly salary is around \$250–300. Viktor, a young professional in Kyiv in his mid-20s, related the anxiety and uncertainty that accompany food shopping in post-Chernobyl Ukraine:

... A huge percentage of foodstuffs are bought now from a free market called a "bazaar" because it is cheaper [than buying food in stores]. And it is practically impossible to check if food is from the Chernobyl zone. Of course,

people think about the fact that they might be eating “not-clean” food grown at a “dirty” place, but what can they do about it? Nothing.

Another consultant, a young biologist in Kyiv named Oleg, commented:

As to the products with labels saying they are ecologically clean—you can find such products often, and they are really varied. At the dentist’s office they even showed me a certificate confirming that their fillings are ecologically clean! Many firms of course put such labels on ordinary products so they will sell better, but our people don’t really look at those labels, they look at the price. A lot of foodstuffs from contaminated zones are sold at the market, especially berries, potatoes, and mushrooms.⁸

In Ukraine, long-term low-dose radiation exposure is blamed for a great number of illnesses and deleterious health conditions. Cancer is the most obvious of these, especially thyroid cancer, whose incidence has increased at least ten-fold since the Chernobyl accident (Shcherbak 1996:47-48). Intake of radionuclides is said to leach the bones of calcium, making the exposed person more susceptible to fractures and breaks.⁹ Accelerated aging is also blamed on the nuclear accident (Akhaldze, Ena, and Chayalo 1997; Akhaldze 1998),¹⁰ as are a large number of digestive, circulatory, and respiratory problems. Studies have associated long-term low-dose radiation exposure among children living in contaminated territories with chronic respiratory infections; illnesses of the tonsils and adenoids; diseases of the oral cavity, liver, and pancreas; and pathologies of the blood and blood forming organs, especially iron-deficiency anemia (Nahorna et al. 1998). Many in Ukraine complain of a general weakening of the organism and its capacity to fight disease, an anomalous condition referred to as “radiation AIDS.” A similar condition among children in particular is called “Chernobyl syndrome.”

Ukrainian researchers claim that the effects of ingesting radionuclides are made worse due to the high-stress environment in which many Ukrainians live today. Such stress is largely a result of the country’s continuous socioeconomic crises and the pervasive mood of uncertainty about the future. The joint effects of radiation and intense stress, some medical experts assert, compromise the organism’s immune, nervous, and endocrine systems, making post-Chernobyl bodies ready conduits for chronic illness and disease (Institute for Experimental Radiology 1998:4).

Since it is extremely difficult to link a specific illness directly to Chernobyl, the disaster’s role as an etiological factor in all of these health problems is, of course, contested. People in positions of power have used references to “radiophobia” to discredit citizens’ claims that their health problems are

Chernobyl-related. Such accusations emphasize the “psychological” effects of the disaster while minimizing the perception of health effects. The fact remains, however, that post-Chernobyl eating can pose risks to health. In the following case study, I trace one family’s Chernobyl-related food experiences since 1986. Many people in Ukraine, I found, have resigned themselves to the radiation exposure inherent in consuming post-Chernobyl food-stuffs. On the other hand, some persons, even in contexts of near destitution, may take up specific food strategies to decrease the dangers of post-Chernobyl eating.

POST-CHERNOBYL FOODWAYS IN ONE UKRAINIAN HOUSEHOLD

Lydia, now divorced and in her mid-40s, lives with her 19-year-old son, Myron, in a one-room apartment in Kyiv. Lydia, like most Ukrainian women, is the exclusive food-acquirer and preparer for her family. As in many countries of the former Soviet bloc (and in many countries worldwide), in Ukraine “cooking contributes to the social and moral evaluation of full female personhood” (West 2000:117). Under state socialism, women in Ukraine were expected to work full-time outside the home and simultaneously perform their “womanly duties” in the domestic sphere—cooking, cleaning, laundering, and childcare. Today paternalist/nationalist narratives in Ukraine also encourage women to “fulfil their primary maternal obligations” (Pavylchko 1995:93) by protecting the family hearth and inscribing Ukrainian national ideals and traditions in the hearts and minds of their children. Women’s roles are largely “ideologically circumscribed by the household” (West 2000:122), and food preparation is a duty ascribed almost exclusively to women.

Therefore, like most women in Ukraine, Lydia has been obliged to cultivate an especially deep concern for the subtleties of food consumption since the Chernobyl accident. Worldwide, women are responsible for feeding their families in ways that take into account the preferences of “tastes” of other family members, adhere to budgetary constraints, and are considered “healthy” (Caplan 1997:9). Women like Lydia in Ukraine, however, also must take into account the ill effects of Chernobyl when making food-related decisions for their families. Ukrainian women’s food-related decisions, in other words, affect the health and well being of their family members in an especially conspicuous fashion (Counihan and Kaplan 1998).

Lydia told me that the moment she learned of the nuclear accident, her relationship to food changed. As a physicist, she understood the potentially

devastating consequences of the disaster for her health and that of her husband and son. Lydia and her husband immediately arranged for their then five-year-old child to spend the summer with relatives in Poltava oblast' (province), located east of Kyiv oblast' and well out of Chernobyl's reach. Staying behind in Kyiv, Lydia and her husband restricted their intake of milk products, meat, vegetables and berries—foods that were especially susceptible to radiation contamination. During the period directly following the accident, they consumed cereal grains (*kashy*) and canned foods that had been bought or prepared predisaster, as did many other people. In Kyiv immediately after the Chernobyl accident, the consumption of milk and milk products decreased by 27 percent, fruits and berries by 24 percent and vegetables by 22 percent (Page et al. 1995:145).

Each summer, Lydia and her son traveled to clean Poltava oblast', where she hoped he could drink his fill of non-contaminated milk. She did her canning in Poltava as well, using food products grown in that clean area. Like Lydia's son, during the first three summers following the Chernobyl accident, the majority of Kyiv's children spent their summers vacationing in clean regions. For three years after the disaster, Lydia restricted her family's diet almost exclusively to foodstuffs that her parents sent them via railway from noncontaminated Poltava. The practice of importing foods from clean regions after Chernobyl was common among those Kyivans who had relatives in clean areas and could afford the expense. For Lydia, the impracticalities and high cost of such food-importing practices eventually proved too much. This became increasingly true during the difficult years of *perestroika* (restructuring), especially in 1989, 1990, and 1991, when citizens all over the Soviet Union were faced with near economic destitution.

"Now we never eat clean foods," Lydia told me in 1998. Like most in Kyiv, today Lydia does not follow strict Chernobyl-related dietary restrictions. It would be impossible, she says, to calculate the levels of radiation present in the foods she buys at local markets. When the state-enforced system of "radiation control" of foods sold in state-run stores and open-air bazaars was in place, Lydia was careful about the products she purchased. She always insisted on seeing the vendors' certificate proving that the foodstuffs had been monitored for radionuclides. Now, she lamented, no such assurances are available for consumers.

The state's contemporary hands off approach to the radiation monitoring of food is disturbing to Lydia and other informants, who feel powerless to make informed decisions about which food products are clean and thus pose least risk to health. To complicate matters, Lydia's pitiful salary of \$120 per month does not allow her to be choosy about what to purchase and consume.¹¹ Like many of my consultants in Kyiv, Lydia does not go to the

market to buy specific food items, but rather to buy those products that are being offered at the cheapest prices. Her family's daily menu is usually based not on what she and her son would like to eat, but rather on what they can afford to eat. Lydia does not have the resources to buy imported foods (like milk and milk products, for example) that might be radiologically cleaner than local products.

At times Lydia does, however, purchase low-cost foods that she conceptualizes to be "radioprotectors." These foods act as "sorbents," said Lydia, latching onto radionuclides in the organism and removing them from the body. She makes salads from vitamin-rich canned seaweed, for example, increases the pectins in her family's diet by using apples in a variety of recipes, and tries to consume a good deal of beta-carotene rich foods such as carrots and other orange vegetables. The overflowing bookshelves in her tiny apartment include books and pamphlets on healthy eating in the post-Chernobyl context. As a scientist, Lydia has read widely about the health effects of Chernobyl and about consumption strategies to minimize one's exposure to radiation through food and water.

Lydia is perhaps not representative of the majority of persons in Kyiv, since as a physicist she is particularly sensitive to the dangers, of post-Chernobyl eating. She relates to food as a scientist, unlike the majority of Kyivans. Her knowledge of radioprotectors is also exemplary. While most of my consultants had heard of radioprotectors, many could list only one—red wine (a product whose effectiveness as a radioprotector is dubious). Lydia holds a relatively prestigious position as a research scientist and therefore has access to information and research findings on post-Chernobyl food that are not widely available. Her consumption strategies are shaped accordingly. On the other hand, however, as a consumer she is restricted by her finances and is unable to pursue the consumption strategies she believes necessary to ensure healthy eating on the part of her family. Her situation is illustrative of several points: 1) the significance of—and tensions over—science in daily life; 2) the ambiguity in citizens' relations vis-à-vis the state and the market; and 3) the role played by consumption practices in the invention of post-Chernobyl, post-socialist "selves." Let us consider each of these issues in turn.

SCIENCE, NATURE, AND LEGITIMACY: THE CASE OF RADIOPROTECTORS

In Chernobyl's wake the notion that certain "substances" (Ukr. *rechovyiny*; Rus. *veshchestva*) could serve the body as radioprotectors emerged. While

several Ukrainian research institutes were involved in developing and testing radioprotective products before Chernobyl, since the disaster such efforts have been pursued more intensely.¹² Simply put, radioprotectors are foods and foodstuffs that have been shown to decrease the effects of ionizing radiation on the human organism. One scientist at Kyiv's Institute for Experimental Radiology (where potential radioprotectors are tested on irradiated rats before being approved for production) described radioprotector to me as "substances that increase the defensive properties of the cells and of the organism in general. They bind up radionuclides and hard metals in the stomach and intestines and flush (*vyvedut*) them from the organism."

Vitamins C, A, and E, beta-carotene, pectins, iodine, and folic acid are considered radioprotectors. They are all vitamins, provitamins, and microelements that are naturally present in many fruits and vegetables. Their radioprotective qualities are derived from their ability to act as antioxidants, or scavengers of free radicals in the body. In order to maximize the radioprotective potential of antioxidants, Ukrainian scientists have included them in concentrated form in balsams, juices, powders, tablets, and effervescent wafers. Some examples include dissolvable tablets called *lablopekt* that contains pectins; the non-alcoholic balsam *Il'ia Murometz* (made from concentrated apple and grape juices, sugar-based sweeteners, and an infusion of herbs); the non-alcoholic drink *Barbi-Kola* (a combination of concentrated apple juice, pumpkin puree, honey, and purified water); *Kosmol* (a "food additive" made from dried skim milk, protein concentrate from whole milk, malted barley extract, vegetable oil, calcium lactate, and ascorbic acid); and *Spirulina Platensys* (a "food additive" derived from vitamin-rich seaweed). There is also a widespread belief that red wine and vodka are radioprotectors, but scientists refute such claims, countering that alcohol robs the organism of essential vitamins and therefore does more harm than good.

Food science has a long history in the former Soviet Union. Scientific rationality was seen as the guiding principle by which Soviet citizens were to conduct their everyday lives, and scientific progress was to be one of the hallmarks of Soviet modernity.¹³ In the Eastern bloc, discussions of the role of science and technology in communist society were both ideological and programmatic; through such debates "science became, like other fundamental economic forces, a 'force of production'" (Stokes 2000:69). Technological experimentation and innovation influenced eating practices, so that even the most intimate spaces and routines of daily life (such as dining and nutrition) were controlled by the state under the rubric of "science."

As well, food preparation and eating were targeted by the daily life (*byt*) reforms promoted by the early Bolshevik state. "*Byt* was central to the de-

velopment of a worker's political and social consciousness" (Buchli 1999:24) and socialist reforms of the domestic hearth were seen as critical to the successful development of collectivist values. Accordingly, ultimately unsuccessful attempts were made (through the establishment of communes and housing cooperatives, for example) to socialize the preparation and partaking of food (Buchli 1999:46–47).

In recent years, "Science with a capital S" in the former Soviet Union seems to have lost much of its currency. Ukraine and other formerly Soviet countries have witnessed a "complete disintegration of the mighty Soviet scientific establishment" (Ninetto 2000:37). Scientific institutions are in financial ruin, and the social prestige of science seems to have nearly collapsed. Many scientists, unable to survive on their paltry wages, have left scientific institutes for other work. These dire straits in the scientific establishment also extend to state-run institutions of health care. Finding institutions of "official" medicine ill equipped to address their health problems, many in Ukraine seek out alternative means of treatment. Many of these treatment options (which range from herbal medicine, homeopathy, and acupuncture to divination and "seeing" (*ekstrasensorika*)) derive their legitimacy from sources outside "official, scientific biomedicine." Namely, they draw on traditional legitimacy, charismatic legitimacy, and legitimation through alterity (Lindquist 2001:16–17).¹⁴ On some level, the alternative therapy movement in Ukraine rebels against the "nostalgia for the former might of the Soviet industrial giant, the very epitome of modernity" (Lindquist 2001:7–16) that "science" and biomedicine represent.

In these conditions, we might expect post-Soviet citizens—especially in Ukraine, where anti-Soviet sentiment runs high—to reject modernist projects such as "food science." Food science may represent for many the near total (and unwelcome) control that the "Soviet machine" sometimes wielded over the quotidian affairs of citizens. At first glance, radioprotectors might look like a type of "alternative" therapy to protect the body from radiation exposure. Indeed, radioprotectors, whether consumed in foods or as manufactured "food additives," are widely praised as an "all-natural" means by which to counter the harmful effects of long-term, low dose radiation. Radioprotectors are considered "natural remedies" that treat the organism "without chemicals." These products are praised for having "no ill side effects" and are promoted as safe for both healthy and ailing persons (Institute for Experimental Radiology 1998:23).

On the other hand, although they are promoted as all-natural, radioprotectors are prepared in laboratories utilizing various additives and preservatives, and their benefits are described in complicated scientific language employing the principles of biochemistry and radiobiology. I found

that Ukrainians seem to find comfort in the notion that using radioprotectors is a scientifically proven way to reduce the risk of post-Chernobyl eating. Despite references to the all-natural quality of radioprotectors, the scientific validity of eating strategies involving radioprotectors is precisely what lends these food therapies their legitimacy for many consumers.

Producers of radioprotectors draw on the authority of the natural sciences in their advertising. State research institutes such as the Institute for Experimental Radiology in Kyiv do not manufacture radioprotectors, but producers have found that using references to these institutes (and actually employing them to promote their products) in advertisements is a good marketing strategy. Advertisements for radioprotectors emphasize that the products have been tested by prestigious research institutes (one such ad begins by declaring that “The Scientific Center for Radiation Medicine . . . recommends . . .”). At the same time, promotional materials underline the Ukrainian origins of the foodstuffs and food additives, referring to the products, for instance, as examples of “Ukrainian Medical Technology.” One scientist at the Institute for Experimental Radiology explained the relationship between his Institute and the radioprotector business:

You have to understand, testing and certifying radioprotectors is one of the only ways our laboratory can get money. We are a state institution, but we get practically no funding from the state to carry out our research. So we try to combine our [unpaid] state work and our [paid] non-state work. Working with radioprotectors is a way we can do that. Sometimes we don't feel that we are doing very “strong” science, but “pure” science has to take second place sometimes.

We don't really make money through the selling of the radioprotectors, but we help advertise them. The ads have our address and phone number on them so consumers can call us to ask about the products. We can assure them that they are really effective and we can explain how they work. They will believe us [scientists] before they will trust some salesman. It is a good marketing strategy for the manufacturers to use us as a contact for consumers. After talking to the consumer we give them the telephone and address of the manufacturer, and then they can go buy the radioprotectors if they like.

Simultaneously drawing on disparate discourses to legitimate healing systems (i.e., promoting them as simultaneously “scientific,” local, *and* innovative, alternative, natural, etc.) is a common strategy throughout the former Soviet Union (Lindquist 2001:24). Healers and manufacturers of health-related products recognize that consumers take up multiple (and often competing) discourses in selecting their health care options. Both marketing and consumption strategies reflect this ambivalence, and they index the

multiple ways in which persons are rearticulating the discourses of Science to new institutions in the post-Soviet, post-Chernobyl period. This ambivalence toward science and nature, I believe, is rooted in numerous causes. As mentioned earlier, as a hallmark of Soviet achievement, science failed to deliver the promise of a socialist utopia based on the principles of high modernism. In Ukraine, in the wake of Chernobyl there is also a popular conception that science (as represented by nuclear physics) has gone awry. Chernobyl, which engendered profoundly anti-nuclear sentiment in Ukraine and sparked a successful environmental movement called “Green World” (*Zelenyi Svit*), (Kuzio 2000:78, 191) necessitated a reevaluation of the reliance on science as a benevolent force.

Ambivalent attitudes toward science and nature are manifest in a number of arenas, not least among them health care choices. Health care in the Soviet Union was always “medically plural” (Janzen 1978), even though biomedicine was the only officially allowed—and bureaucratically established—system of health care (Lindquist 2001:19). Although they were often pursued in secret, “alternative” or “complementary” healing systems (folk medicine, bioenergy healing, Chinese and Indian medical techniques, etc.) existed and in some cases thrived.¹⁵ With *perestroika* and the freedoms it brought, such therapies were officially allowed and became much more visible and widespread. In Ukraine, I found, the Chernobyl disaster (and the concomitant questioning of “science”) gave citizens an extra push to take up (already available) alternative health care strategies. In Chernobyl’s wake healers and patients started paying more attention to therapies that would “flush” radionuclides from the organism; these strategies draw on a number of discourses—sometimes simultaneously—ranging from the “scientific” to the paranormal. In terms of these braided discourses, radioprotectors are especially interesting since they valorize both science and the natural. Talk surrounding radioprotectors thus reflects the ambivalent attitudes toward science, technology, and the body that guide people’s post-Chernobyl health maintenance practices.

POST-CHERNOBYL FOOD, THE STATE, AND THE MARKET

Even as they indicate ambivalence toward the role science should play in daily life, the phenomena of radioprotectors—and narratives surrounding post-Chernobyl eating, science, and health that are connected to them—index a profound critique of the Ukrainian state by citizens. Struggles over

eating after Chernobyl involve debates about what foods are healthy and clean, and whose responsibility it is to ensure healthy eating options for Ukraine's citizenry. My consultants interpreted the dearth of manufactured radioprotectors as evidence of the state's unwillingness to take responsibility for the Chernobyl disaster and its ill effects on health. They criticized the state for failing to take adequate measures to ensure post-Chernobyl food safety, especially since the technology and know-how was in place. Scientists at the Institute of Biocolloidal Chemistry, for example, have developed low-cost methods of "deactivating" (decontaminating) irradiated milk. The Ukrainian state, however, shows no interest in implementing (and paying for) these procedures, which are designed to cleanse milk produced by cows in second and third zone villages.¹⁶ The Institute's research is sponsored by a Spanish scientific establishment, an arrangement the Ukrainian scientists find ironic.

On the whole, specially manufactured radioprotectors are neither mass produced nor widely available to consumers. In February 1998, I joined acquaintances from the Institute for Experimental Radiology at an exposition in Kyiv devoted to health and health care. The scientists arranged an impressive booth and displayed a wide variety of radioprotective products behind glass windows. All of these balsams, jams, sauces, purees, and food additives had been studied and certified by the Institute's scientists as effective radioprotectors. Of the approximately 15–20 different items on display at the exposition, however, only three were available for purchase by expo-goers. This deceptively well-stocked booth was testimony that while many radioprotective products have been developed and proven to be effective, very few of them are actually produced for consumption by Ukrainians in conditions of post-Chernobyl low dose radiation. In a small household health survey that I conducted during 1998 among 68 persons in Kyiv,¹⁷ 63 percent (43 respondents) reported that they did not use radioprotectors regularly, while 37 percent (25 respondents) said they did use food substances they believed to be radioprotectors.¹⁸ Because of the cost and lack of availability, most who use radioprotectors do so by consuming foods known to be high in certain radioprotective elements, rather than partaking of specially manufactured food and food additives.¹⁹

The lack of readily available radioprotectors, I found, represented for many the state's neglect of citizens' "needs." Consumption in the Soviet bloc—where production and redistribution were state-controlled—was always political, since the limited availability of many consumer goods meant that citizens had to devise their own strategies to obtain scarce goods (Verdery 1996:27–28). They did so by participating in the "second" or "informal"

economy (the black market). Today, the introduction of a free market system in the former Soviet Union and privatization of enterprises complicates the issue of needs—how are citizens’ needs to be defined, and which institutions or agents are responsible for meeting these needs?

In post-socialist countries such as Ukraine, the role of the state vis-à-vis citizens is being furiously debated. With limited resources, the Ukrainian state is renegotiating its responsibilities toward citizens, and international lending agencies such as the International Monetary Fund (IMF) push Ukraine toward “structural adjustment,” which involves the dismantling of socialist-era social safety nets.²⁰ Struggles over the role of the state revolve around the question of whether the state should focus on protecting citizens, or whether it should act primarily as guarantor of market and private property per neoliberal economic policy. These opposing duties of the state epitomize the difference between the commitments of the state socialist system of government and the country’s newly adopted capitalist market system. Citizens, who are used to being cared for by the “socialist nanny state,” feel that the state has failed them, in part because the state has let market concerns take priority over the welfare of citizens. Many in Ukraine mourn the demise of the Soviet state, and feel that the state has abandoned them.

On the one hand, in the context of post-Chernobyl eating, consumers find an ally in the market, which seems able to provide them with healthy and clean food choices (i.e., radioprotectors) that the state is not. By electing to demonstrate their independence from state authority (both Soviet and Ukrainian) and reclaiming food science through local reformulations, Ukrainians attempt to reclaim their bodily routines from the state’s oversight and neglect. On the other hand, citizens are not at all sure that the deregulated or free market is a benevolent force that can be trusted to keep their best interests in mind.

Prior to *perestroika*, state-run stores dominated the official market, and there were uniform prices for most goods. Soviet cultural logic equated trading with speculating and private enterprise was demonized. Traders were criminalized a people who made “a profit by buying and . . . reselling goods without adding any value by means of their own labor” (Humphrey 1995:61). Drawing on the Soviet logic, many citizens found the commodity culture that emerged during *perestroika* to be problematic, and “the acting out of and discussing of value conflicts connected with the commodification of life was thus a symbolic practice of *perestroika*,” (Ries 1997:131). In the post-Soviet context in Russia and Ukraine, discourses that decry the contaminated market often put forth nationalist (and racist)²¹ ideas that valorize

the nation-state and encourage consumers to purchase “native” products (Caldwell 2000). In such formulations, the market as a phenomenon is often associated with immoral activity and with imported “pollution” from elsewhere (Gille 2000). The post-socialist barrage of advertisements that attack consumers are also viewed with skepticism, since such ads were always considered “foreign to Soviet ideology” (Andrushchenko 1998). Consumers realize that today’s marketplace represents a braiding of interests on the part of the state, producers, advertising agencies, buyers, and sellers (Andrushchenko 1998), and debates over the positive and negative aspects of the market are informed by discourses of the local, foreign, clean, and dirty qualities of the marketplace.

All of these narratives are present in discourses concerning radioprotectors. Most radioprotectors available to Ukrainians are locally produced, but imported variants from countries such as Germany are also marketed. Debates over the quality and cost of local versus foreign products are frequently heard in reference to many items, including medicines and vitamins, food, and clothing. In terms of food, while consumers often prefer to buy local, citing lower cost and better taste, they also frequently lament a dearth of high quality, low-cost, Ukrainian-made foods (e.g., infant cereals) (Pirozhuk 1998). Foreign brands (which are usually more expensive and therefore inaccessible to most consumers) are often seen as better, and in some cases consumers trust these products more than locally made foodstuffs.²² One of their main concerns in making such assessments is the issue of food safety.

As stated earlier (see footnote 7), in today’s market “free-for-all” in Ukraine, the danger of food poisoning by consuming poor quality foodstuffs is very real. People are careful about what they consume, and they often do not trust food producers. Therefore, consumers seek assurances that the products they buy are safe. In the case of radioprotectors, interestingly, many consumers seek such assurances from state-run scientific institutions that test radioprotectors before they are certified for production. Reflecting their ambivalent attitudes toward the state and the market, consumers alternatively look to both for assurance while criticizing the other. In terms of radioprotectors, on the one hand the market provides consumers with clean and protective foods; on the other hand, consumers feel they cannot really trust the market, which is bound up in a web of negative associations. They end up looking to the state for help in their consumption choices, while simultaneously criticizing the state for not protecting citizens adequately. The situation is complicated by the fact that few can afford to spend money to buy radioprotectors, which are relatively expensive by Ukrainian standards.²³

This situation reveals how “healthy eating is clearly a political issue” in post-Chernobyl Ukraine, as in other parts of the world (Keane 1997:179). Food and power are everywhere intimately linked; in Soviet and formerly Soviet societies (such as China and the countries of the Former Soviet Union [FSU]) historically the state has controlled citizens’ access to food and the allocation of food to various groups. Ukrainians have an especially nuanced relationship to food vis-à-vis state institutions, in light of the country’s horrific losses during the famine of 1932-33. The famine, which resulted in the deaths of between three and six million in Ukraine, was engineered by Stalin, who ordered that grain be confiscated from Ukrainian peasants (Mace and Heretz 1990; Subtelny 1994:413–15, 529). Of China, Susan Brownell (1995:260) writes that, “Food is one of the main ways in which the Chinese state is symbolically constructed as provider, superior, and incorporated part of the self.” In the Soviet Union, this was also the case. The state had a hierarchical food distribution system: the majority of citizens had access to ordinary food; elites could buy luxury items in specialty shops; and foreigners could shop in foreign-currency stores. The post-Soviet Ukrainian state is reducing its role as provider, and it is the state’s very refusal and/or failure to provide for citizens’ self-perceived food-related needs that informs a post-Chernobyl, post-*perestroika* shift in relations vis-à-vis the state and the market.

In her book on sports and body culture in China, Brownell draws on the work of Joan and Arthur Kleinmann (1985) to discuss “somatization,” or the “expression of social tensions in bodily metaphors” (Brownell 1995:238). She notes that somatization “refers to the way in which social tensions are often expressed in a bodily idiom, so that calls for their resolution often center on healing and strengthening the body” (ibid., 22). Narratives and practices surrounding radioprotectors in Ukraine can be interpreted as representing precisely this type of embodiment of social tensions at the level of the person. While conceptualized as a means to protect and cleanse the body from the ill effects of Chernobyl-induced exposure to radionuclides, radioprotectors also index struggles over social and health justice, the role of the state, and the role of the market in the post-Soviet context.

“CLASS,” RADIOPROTECTORS, AND THE INVENTION OF POST-CHERNOBYL SELVES

In my interviews with respondents, I found that they frequently indexed their use of various healing practices—including food therapies involving

radioprotectors—in narratives through which they constructed specific class identities. In the Soviet Union, real differences in income between more and less-educated workers were small, yet a distinction between the intelligentsia and the working class was central to perceptions of difference, often labelled as one's level of culture (*kul'turnist'*). Therefore, social differentiation was based not on monetary capital, but rather on cultural capital, which was assessed by calculating education and qualifications, social ties, and access to information and resources. This system of social differentiation continues in Ukraine, even in conditions of an increasingly stratified society in terms of socio-economics. Post-socialism has seen the rise of Ukrainian *nouveaux riches* ("New Ukrainians"), many of whom are very wealthy businessmen (*biznesmeny*). The New Ukrainians are perceived much like the New Russians, who are represented in popular discourse as wealthy yet dim-witted men²⁴ who lack culture and education, have poor taste, and exhibit bad manners. New Ukrainians have access to a range of goods and services not available to the average Ukrainian, such as lavish meals in expensive restaurants, the ubiquitous black Mercedes Benz, and medical care in Kyiv's numerous privatized clinics. Significantly, there is a popular perception that it is impossible to "do business" without breaking the law, and it is therefore often assumed that *biznesmeny* (and especially New Ukrainians) are "criminals." For all these reasons, New Ukrainians epitomize for many the very immorality of the market discussed above.

Every day narratives that defame and ridicule New Ukrainians (and New Russians)²⁵ reveal the "speakers" evaluations of the moral content of particular lifestyles and life paths, shedding light too on the type of people they understand themselves to be" (Patico 2000:76). By denigrating the New Ukrainians as wealthy yet uncultured and dim-witted, people assert their own "culturedness," intelligence, and good taste. I have used the example of New Ukrainians to illustrate how class in Ukraine is not a fixed category based on income and material wealth. Rather, class distinctions are based on qualities such as education, manners, taste, and knowledge.

In consultants' food-related narratives, for example, knowledge and use of radioprotectors and other health-maintenance practices to counter the ill effects of Chernobyl were associated with high levels of education, intelligence, and awareness. Lydia told me, for example, that "people who didn't know—those people began to forget [about Chernobyl] three years after [the accident]." Another consultant compared the class distinctions embedded in radioprotector use with those that inform language politics in post-Soviet Ukraine. The phenomenon of radioprotector use, he said, reminded him of intelligentsia families he knew in Kyiv who made it family policy to

speak only Ukrainian after independence. Ukrainian-language use, like knowledge and use of radioprotectors, he said, has become a sign of prestige and culturedness in contemporary Kyiv.

Indeed, my surveys in Kyiv showed that higher levels of income were not predictors of radioprotector use in general. One consultant, a young woman who was an unemployed accountant, reported that she used radioprotector, even though her monthly income was only around \$3.00. Obviously unable to afford manufactured radioprotectors, this young woman instead tried to consume foods known to be high in radioprotective elements. In fact, the same was true for nearly all of the survey respondents who said they used radioprotectors. This is further evidence that high socioeconomic status and radioprotector use are not necessarily correlates, since a variety of foods with radioprotective qualities are widely available. One can thus strive to consume radioprotective foods without purchasing manufactured radioprotectors. Since I focused on average Ukrainians in my study, I cannot comment on the prevalence of use of manufactured radioprotectors among the wealthy in Kyiv. In the future I would like to do more research on this aspect of post-Chernobyl food, since a consideration of economic factors in relation to the consumption of clean foods is a crucial element of an analysis of contemporary foodways in Ukraine.

Interestingly, but not unexpectedly, my findings showed that people in medical and/or scientific professions were more likely to have knowledge about both natural and manufactured radioprotectors and were more likely to use them. The majority of consultants who used both types of radioprotectors were doctors, nurses, and scientific researchers. These people were part of social networks in which discussions about health, the body, and Chernobyl were frequent. As well, their consumption practices were influenced by those around them, especially by their work colleagues, with whom they shared health and nutrition-related advice. Most consultants narrated their use of radioprotective foodstuffs as part of a larger strategy to maintain a healthy way of life. They used talk about radioprotectors to shore up their senses of self as knowledgeable, resourceful, and body and health-conscious persons.

Galina Lindquist's (2001) analysis of healing systems in contemporary Russia is relevant to a discussion of how people in post-Chernobyl Ukraine construct their senses of personhood in dialogue with various events, persons, and material objects (Bakhtin 1981; Bruner 1986; Rosaldo 1984). Lindquist (2001:18) writes:

It has been noted that people's choices of health-seeking strategies sometimes reflect more than practical possibilities of access and affordability;

more than the pragmatic search for therapeutic efficacy (Burns McGrath 1999). These choices may also be indicative of moral and ideological undercurrents that determine a place of a community, a group, or a nation in the global world. It is in this sense that health-seeking strategies can be windows on cultural transformations and contestations. In Russia, individual health-seeking strategies may be pragmatic last resorts; but they may also be political and ideological statements of identity and of belonging to different social groups, of cultural and ideological strands and flows, as well as attitudes to past and present.

Using and talking about radioprotectors was precisely one way my consultants were able to position themselves as members of a group of citizens who were concerned about their health and actively took up strategies to ensure good health and clean eating after Chernobyl. Though impoverished and often unable to buy specially prepared radioprotectors, these people are able to assert their social worth in other ways. Namely, they index their high levels of education (almost all had higher educations) and underline their self-respect by taking up certain food strategies. Those who prefer to use imported radioprotectors from Germany thus assert their place in a globalizing world and take up critiques of the Ukrainian state and its pharmaceutical industry. Discourses on radioprotectors interrogate the role of Science and raise questions regarding the Ukrainian state's responsibilities towards citizens. By utilizing radioprotectors, people commit themselves to a particular post-Chernobyl "body culture" and also take up a variety of narratives concerning science, the state, and the market. Such debates and practices—and the "ideological strands and flows" they index—are crucial to the invention of post-Chernobyl, post-Soviet selves in Ukraine.

CONCLUSION

Chernobyl fundamentally changed how persons in Ukraine think about and consume food. Indeed, post-Chernobyl food practices reflect ways in which Ukrainians are rethinking health, illness, and the body when faced with what Petryna (1995:197) has called "the blinding and incomprehensible light delivered by Chernobyl." Discourses surrounding post-Chernobyl consumption reveal how class is conceptualized in Ukraine, and how even persons with limited incomes can empower themselves through their decisions to engage in healthy eating by including radioprotective foods in their diets. At the same time, manufactured radioprotectors are still cost-prohibitive for many, and such products are not widely available. This means that citi-

zens must develop their own strategies to counter the ill effects of contaminated food. In so doing they take up a range of narratives to position themselves vis-à-vis various post-socialist institutions. Food strategies such as the utilization of radioprotectors thus reflect ways in which post-socialist, post-Chernobyl selves are being refashioned through discourses and bodily practices that manifest ambivalent attitudes toward science, the state and the market.

NOTES

1. This research was supported by a grant from the International Research & Exchanges Board (IREX), with funds provided by the National Endowment for the Humanities, the U.S. Department of State, and the U.S. Information Agency. None of these organizations is responsible for the views expressed. Subsequent research in Ukraine in 1999 was supported by a U.S. Department of Education Fulbright-Hays Doctoral Dissertation Research Abroad (DDRA) Fellowship. My 1999 research explored women's civic organizing in Ukraine and focused on twelve nongovernment organizations (NGOs) in Kyiv (Phillips 2000). Preliminary research in Ukraine in 1996 was supported by the Department of Anthropology at the University of Illinois at Urbana-Champaign (including funds from the National Science Foundation) and by the University Graduate College.

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2. A sociological survey conducted by Yury Sayenko of the Institute of Sociology in Kyiv showed that 94 percent of the "partisans" were 51 years of age and older; 81 percent lived with a spouse in two-person households. In 1999, to much fanfare, residents of the "exclusion" zone welcomed the first baby to be born there since the 1986 disaster. The baby, who by all reports was born

healthy, was named Maria, a name that evoked for Ukrainians associations with the Virgin Mary. Her birth therefore was interpreted symbolically in the popular media as a sign of rejuvenation and post-Chernobyl resilience.

3. The contamination of Kyiv's drinking water by radionuclides has been a source of concern since the accident. The Chernobyl plant is located on the upper reaches of the Dnipro River, which is used extensively as a source of drinking water in Kyiv. The Kyiv Reservoir is located partially within the 30-kilometer "exclusion zone" around the Chernobyl nuclear power plant. While contamination levels of surface water have dropped since the accident, experts warn that "there is still a danger from pulses of radioactivity from the runoff following spring thaw or high-precipitation events" (Page et al. 1995:143). It was not until 10 years after the Chernobyl accident that deep artesian wells were dug in the city of Kyiv as sources of safe drinking water for residents. Today, many families draw drinking water exclusively from these wells, which are located throughout the city.
4. Both Ukrainian and Russian are used in Ukraine. Russian words in the text are demarcated by the abbreviation "Rus." and Ukrainian words are indicated by "Ukr." No abbreviation indicates that the word is Ukrainian.
5. Statistics reported during the Soviet era regarding the effects of Chernobyl were notoriously conservative. It is possible that contamination levels were higher than those reported in scholarly reports such as the one cited here.
6. It should be considered, however, that the Soviet regime actually went to extreme lengths to cover up the ecological and health consequences of the Chernobyl accident. Radiological data was frequently falsified, and dosimeters given to clean-up workers (called "liquidators") were even programmed to show deceptively low readings of radiation. It is not surprising, then, that many doubted the veracity of claims of "effective radiation control" at Kyiv's markets and were skeptical about the authenticity and reliability of the certificates issued to vendors.
7. The contamination of foods by radionuclides is just one issue of food safety that concerns Ukrainian consumers. In the country's chaotic market conditions, many adulterated products, particularly alcoholic beverages, find their way onto kiosk shelves. This "bathtub liquor," cleverly disguised in seemingly authentic bottles, causes serious food poisoning among consumers and sometimes even death (Krupevskaia 1998). Cigarettes, sauces, spices, and imitation red and black caviar made in underground factories also pose risks to consumers.
8. Though most of the fallout from Chernobyl was confined to the territories of Ukraine, Belarus, and Russia, residents of these countries are not the only Europeans who might worry about consuming foods grown in contaminated areas. During research trips to villages in Rivne oblast', in western Ukraine, I found that persons living in the third zone had been hired to pick local wild mushrooms and berries which were then illegally shipped to France and Italy for processing and marketing.
9. I met one man living in the third zone who had suffered 15 broken bones since Chernobyl. When I asked his family members the reason for his weak bones, they replied without hesitation: "Chernobyl."
10. Ludmila (the doctor at Kyiv's Clinic of the Radiation Register cited earlier) takes part in a project to monitor the health of *Chernobyltsi*, or "Chernobyl

victims,” a group comprised of liquidators (the men and women who took part in the disaster clean-up) and persons evacuated from contaminated areas after the disaster. Ludmila told me, “I am continually amazed by how old *Chernobyltsi* look. The radiation has aged them prematurely. Just the other day a middle-aged woman came in with all kinds of health problems. But the thing is I just thought she was middle-aged. I couldn’t believe it when she told me she was only seventeen!”

11. In 1999, the average per capita GDP in Ukraine was \$3,458. The estimated earned income for men was \$4,576, and for women \$2,488 (United Nations Development Programme Human Development Report 2001).
12. Institutes and research centers that have worked on developing and testing radioprotectors include the Institute for Experimental Radiology, the Institute of Toxicology, the Ukrainian Center for Scientific Hygiene, and the Scientific Research Institute for Food Hygiene, among others.
13. A detailed examination of “Soviet high modernism” (Scott 1998:193) and the centrality of scientific rationality to the Soviet project is beyond the scope of this article. For further reading on the subject see Balzer (1989), Dunham (1976), Fitzpatrick (1982), Graham (1990, 1993), Josephson (1981, 1992), Kotkin (1995), Lubrano and Solomon (1980), Scott (1998), and Stites (1989).
14. See Lindquist (2001) for an insightful examination of different types of legitimacy in contemporary Russian healing. In her article, Lindquist draws on the theories of Max Weber, whose ideas were applied to medical systems by MacCormack (1981). In these authors’ schemes, traditional legitimacy refers to treatments commonly called “folk medicine.” Charismatic legitimacy applies to treatments forwarded by cults of personality such as gurus and famous healers. Legitimation through alterity applies when practitioners emphasize the “foreign and distant origins of the craft, that in many cultures is imbued with power and value” (Lindquist 2001:17).
15. Indeed, the limitations of the Soviet medical system meant that herbal medicine, therapeutic massage, homeopathy, “tempering” (fasting and bathing in icy water) (Bronnikov et al. 1997) and folk remedies were widely used. Thus, interest in alternative therapies did not begin with *perestroika*—or with Chernobyl—but developed during the Soviet period and carried over into the present day. Today, Ukrainian state medicine is an extremely integrated system. Medical students regularly take courses in alternative methods such as homeopathy, phitotherapy (herbal medicine), and others. I found that most practitioners of non-traditional methods of treatment have formal medical degrees from state institutions. Frequently, state-run clinics offer treatment methods to their patients that in the United States might be considered alternative by some: acupuncture, massage, water therapy, mud therapy, “climate” therapy, etc.
16. Some state employees—specifically those working in research institutions where they faced elevated radiation exposure—did receive food subsidies from the government in the form of milk and cheese.
17. This survey was conducted in the Ukrainian cities of Kyiv, Kharkiv, and Ivano-Frankivsk. The total number of respondents was 139; for this analysis I am focusing only on the data gathered from the 68 respondents in Kyiv. I utilized

snowball sampling, and therefore do not assert that the survey data are representative of Kyiv's population as a whole.

18. In Ukraine, I volunteered to participate in a World Health Organization project to assess the health and lifestyle of village children and youth living in the second Chernobyl zone. The research team was made up of mostly medical personnel, who did blood tests and performed ultrasound examinations of children's thyroid glands. Others such as myself asked the youngsters about their nutritional and lifestyle habits since Chernobyl. Very few of them reported that they or their families had modified their diets after Chernobyl. They had continued to drink locally produced milk and vegetables, all of which contained high levels of radionuclides. The doctors working on the project reported that several of the youngsters they examined (during my tenure approximately 90 children were questioned and examined) displayed irregularities of the thyroid.
19. As mentioned in the section about Lydia's food practices, such foods include apples and orange vegetables. Other examples are sea kale, soy, wheat germ, and various herbal teas.
20. See Field, Kotz, and Bukhman (2000) for an analysis of the negative impact of Russia's new neoliberal economic policy for citizens, especially in terms of health outcomes.
21. See Goluboff's (2001) account of discourses concerning the marketplace taken up by various groups of Jews in Moscow. Goluboff found that competing market-related discourses were used by Russian Jews and Mountain Jews, for example, to make claims about themselves as distinct groups.
22. I found that some consumers prefer to buy imported radioprotectors. One consultant for example preferred to buy *Spirulina platensis* that was manufactured in Germany. He noted that the German *Spirulina* was cultivated in more sterile conditions than the Ukrainian *Spirulina*. He also believed that the Ukrainian manufacturers sometimes "watered down" their product by adding cheap materials that resembled *Spirulina*. Though, on a limited budget, this consultant was willing to pay a higher price to obtain the "better, safer" German-produced *Spirulina*.
23. A 25-day supply of locally produced *Spirulina* (at a dosage of 1 gram per day) costs between \$2.20 and \$2.90. The same quantity of German-produced and packaged *Spirulina* sold for about \$10 and a 25-day supply of German-produced but Ukrainian-packaged *Spirulina* cost between \$3.70 and \$4.60.
24. Stereotypes of New Ukrainians (like those of New Russians) almost never refer to women. Patico (2000:77) has proposed that "this may be related to the fact that being a New Russian implies not only wealth, but also particular activities (including crime) and displays (raspberry jackets, shaved heads, heavy gold jewelry) that are associated more with men than with women and very strikingly differentiate New Russian men from other Russian men." In St. Petersburg Patico found that New Russian women are usually understood to be successful businesswomen or the wives and girlfriends of New Russian men.
25. For analysis of *anekdoty* (jokes) about New Russians, see Krylova (1999:261–63).

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ABSTRACTS OF FORTHCOMING ARTICLES

FOOD SAFETY AND EXPERTISE: THE TRICHINOSIS EPIDEMIC IN FRANCE, 1878–1891

Alessandro Stanziani

Trichinosis led to a ban on the importation of American cured meats in several European countries, including France, throughout the 1880s. Although members of the scientific community proposed contradictory hypotheses on the stability and reliability of epidemiological knowledge, history shows us that scientific uncertainty concerning food safety is more often the rule than the exception. The result is reinforced by the increasingly common ground between science and economic activity (scientific farming, feeding processes, food conservation, etc.) on the one hand, and between science and state activity on the other (expertise). The trichinosis “crisis” would have been impossible without the unstable nature of the markets and without the rise of the “welfare state” in a majority of European countries. This is why the solutions proposed were either a total ban or the establishment of a system of controls.

**CUTS AND CLASSIFICATION: THE USE OF
NOMENCLATURES AS A TOOL FOR THE REFORM
OF THE MEAT TRADE IN FRANCE, 1850–1880**

Anne Lhuissier

Reformers seeking to improve the diet of the French working classes in the middle of the nineteenth century agreed that fresh meat was too expensive for consumers hailing from modest and poor backgrounds. At local markets, the economic parties within the meat industry and government officials strove to limit retail prices by setting an administrative price. In doing so, they faced the difficulty of establishing a “just price” at the shop level to provide fair remuneration for both livestock producers and butchers. The differentiation and the hierarchic ordering of pieces of meat and their relative prices were the solution to this problem. The introduction of an official, legally-binding nomenclature of meat cuts helped the reformers to overcome the problem of the heterogeneous nature of prices in shops and market stalls. These nomenclatures limited, in a regulatory manner, the designation of cuts, the attribution of prices, and the forms of transaction. Thus, they contributed to the homogenisation of butcher stalls and the widening of the scale of prices for meat available to working class consumers. The administrative diffusion of meat classifications was performed through meat consumer associations and, somewhat later, veterinary inspectors. A proof of their legitimacy was that the terms were still present at the turn of the twentieth century in any good household education manual.

BOOK REVIEWS

LE CUISINIER NOSTALGIQUE: ENTRE RESTAURATION ET CANTINE, by Sylvie-Anne Mériot. Paris: CNRS éditions, 2002, 332 p.

Cooks employed in institutional food services (hospitals, schools, prisons, military and others activities) suffer from a lack of social and professional recognition in spite of their skills and qualification. Their misfortune stems from the perception of French gourmet cooking as typical of the whole profession. The discrepancy between practice and perception forms the starting point of sociologist Sylvie-Anne Mériot's investigation: she demonstrates the degree to which the persistence of the "artistic ideal" among chefs and as a principle of training to the trade leads to a partial, even wrong representation of the cook's occupation.

Although cooking jobs are distributed between the hotel and catering industry on the one side, and institutional food services on the other, it is the former sector that determines the public image of the chef. If the French gastronomical tradition and the economic weight of the restaurant industry (which accounts for seventy-two percent of the sales turnover of the sector) have a legitimate part in this representation, the author suggests that we should not forget that the institutional sector represents forty percent of the turnover for food consumed outside the home. She contests, moreover, the very narrow statistical data collection that, in apprehending the sector under its most traditional aspects, i.e. through the hotel and restaurant industry, leads the profession (and the public) to overestimate hotel and catering jobs. In fact, canteen jobs are not very visible in French statistical breakdowns because they are generally classified not with the hotel and catering sector, but with hospitals, schools, etc. This leads to a gap in accounting for the number of jobs in the profession: while the national institute for statistics (INSEE) counted 86,000 cooks in 1998, France actually employed 185,500 cooks (of which fifty-four percent worked in institutional food service).

The demonstration of the objective existence of canteen cooks as an occupational group allows Sylvie-Anne Mériot to highlight the salient characteristics of their biographical careers. They complete their first profes-

sional socialisation in restaurants which they leave, after five to ten years of experience, because of family or extra-professional reasons. They reorient themselves toward the institutional food service, where they enjoy better working conditions (regular working hours, improvement of wage and social welfare coverage). In spite of these advantages, this second professional socialisation in canteens does not go without difficulties. They face other working constraints (such as the management of low-price menus, dietetic requirements, and the dissatisfaction of customers). They also suffer from the devalued image of their work now executed at a distance from prestigious places. Thus, canteen cooks run up against a strong resistance from both customers and other professional cooks. They perceive their new job as socially degrading and technically deskilling, even though it requires very specific qualifications and knowledge, in particular in terms of such quality standards as hygiene and nutrition.

The devalorization is best explained with regard to the different historical conditions of the emergence of restaurants and canteens: the commercial and artistic calling of the former opposes the utility and social purpose of the latter. The distinction is reinforced by the organisation of the two sectors: institutional canteens are large-scale companies closely related to public operators, whereas restaurants are small structures run by independent craftsmen. It is the traditional activity that incarnates the professional ideal shared by all the cooks throughout their career. More generally, the ideal conveys their wish for social advancement. For cooks, a majority of whom come from popular classes, culinary art means access to a higher culture: it represents both a career guidance to service the dominant classes and a negation of their own domestic practices. The restaurant remains indeed the symbolic crucible of the cooking profession: to be employed in a gourmet restaurant is held up as the model, also and perhaps especially in trade training, the contents of which are shaped according to traditional model of the five-star restaurant chef. This single definition of the cook's trade, consolidated by statistics, contributes to exclude a part of the professional actors from the field of decisions, among which the definition of diploma requirements and certification figure prominently.

The monolithic definition of the profession, focused on restaurant cooks, has many implications for canteen cooks: in particular, they imagine that their counterparts of the restaurants have a greater latitude of action in everyday work, and thus they fear a lack of valorisation possibilities on their job. Sylvie-Anne Mériot stresses however that the two sectors head toward similar professional practices and technological developments. Once more, the author beats in breach the generally accepted idea according to which

institutional food service and restaurants practise two different types of cooking: “assembly cooking” for the canteens, traditional cooking for the restaurants. The author claims that such a dual representation contributes to maintain many stereotypes on the so-called “traditional cooking in restaurants”. She argues that restaurant chains (but a number of traditional bistros, too) also practise «assembly cooking» and hire fewer and less skilled professional cooks, and thus leave behind traditional ways of cooking. On the opposite, she shows how canteens react to a request for a general improvement of the service. The question generates a true reflection on a professional practice, which must combine, in particular in the tertiary sector, good cooking and budgetary constraints.

In conclusion, this research invalidates the generally held belief—and indeed the widely shared sociological affirmation—that trade training prevails over domestic and professional training in occupational identity formation. For canteen cooks, the opposite relation obtains: primary socialisation remains dominant compared to the secondary socialisation in canteens, even though the latter is carried out under more lenient conditions. Moreover, the primary definition of the cooking trade as a French cultural heritage with international fame seems increasingly removed from the professional practice, which tends to be more standardised than artistic. Today the institutional food service opens its recruitment to «newcomers» and to women, who hold more diplomas and are better equipped for functions that exceed culinary competence, i. e. supervisory and management posts. But as long as the identity reference of the profession will be centered on the gastronomic performances of nineteenth-century cooks, the syndrom of the “nostalgic cook” will continue to haunt canteen cooks.

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FOOD IN SOCIETY: ECONOMY, CULTURE, GEOGRAPHY, by Peter Atkins and Ian Bowler. New York: Oxford University Press Inc., 2001. 328pp.

Despite the generalist nature of the title Atkins and Bowler have written an accessible, but detailed, text that seeks to outline the nature of food in the constitution of human society. As they rightly note in the preface of their book, food is “an issue on which all of the social sciences, and for that matter all the general public, have a view.” This book does not have a single argument to follow as it lays out the variety of ways in which food studies must be approached. I say “must” because food is a critical core feature of human society and cannot be studied only within the disciplines of science or social science. It is heartening indeed then, to see that Atkins and Bowler do spend the last section of their book on issues of food habits, taste and other cultural factors.

The book is organized around several themes. Beginning with five chapters on the political economy of food, the authors then move to global issues in terms of food production, malnutrition, food surpluses, food security and finally the geopolitical realities of food. Next, the political ecology of food is addressed. The Green Revolution, the emergence of genetically modified food and food ethics are all given equal treatment. Admitting that the literature on food is vast, the authors have done an excellent job of presenting this array of approaches to food with an eye to clarity. Each of the 24 chapters is concisely written. For example, chapter 12 deals with food security issues. The chapter moves quickly from the FAO definition of food security to a tight assessment of the main questions in debates on food insecurity. Illustrated by graphs, tables and maps, the chapter also gives case studies of harvest problems in West Africa (p.160) and vegetation problems in Sudan (p.161). The chapter ends by addressing the ethical question of why food aid should be given. Likewise, chapter 17 focuses on the development in food production between the Green Revolution and recent developments in the “gene revolution.” Moving swiftly from some general introductory remarks noting the creation of the concept of “Frankenstein foods” (p.220) in the media, and the public terror of “mad cow disease”, the chapter attempts to give a balanced view of the role of science in the modification of food. The view of the Green Revolution as the savior of underdeveloped nations is countered with telling notes on the failures of the revolution. For example, Mexican wheat projects adopted to avoid land reform. Pests also came with the new crops and poor farmers in countries like Indonesia had to fend off these unwanted visitors with increased use of expensive, and environmentally harmful, pesticides. The chapter ends with a discussion of

genetically modified foods and a case study from Britain highlighting the resistance to crop modification from some sectors of the population (p.230).

Each chapter attempts to weigh the positive and negative aspects of the food issues presented, and by and large a balanced view is given. A major strength of the book is the liberal use of maps and the attention paid to the geography of food issues. Both authors are geographers but they buttress the geography in the text with an extremely comprehensive knowledge of other fields of study. The authors are also unafraid of tackling issues as far beyond the traditional social scientific fields of study as cookery books and the bibliography reads like a “Who’s who” of social theory. This is not to suggest, however, that the prose becomes impenetrable by any means. For this reader the book’s main strength resides in the readability of each and every chapter, the clarity of the prose and the even handed manner in which each food issue is treated. Every chapter, though concise, has a well stocked bibliography and the authors add notes on where to find further information on the subjects they address.

As for the suitability of the text for an undergraduate or graduate audience, it is an invaluable tool for both. However I doubt the text could be used effectively in a single semester as the chapters introduce so many necessary and interesting issues and theories that it would take some time for an instructor to make the best use of them for her students. For a two semester course this text will be hard to beat as a core reading requirement. More importantly perhaps, as a reference text this should be a feature on anyone’s bookshelf that pretends to be knowledgeable on food issues in a global context.

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Call for Papers & Reviews

Call for Papers: Men, Masculinities, and Food

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We seek papers that examine men and food to address the meaning of masculinity in different cultural and historical contexts. Essays should address social and discursive sites where food, eating, or cooking play a significant role in the construction of masculinity. We are interested in global positioning of various masculinities and the interplay of gender with race, sexuality, class, and nationality.

Papers should examine the individual, institutional, and/or collective processes that invoke masculinities through food. Relevant topics include but are not limited to the social construction of male bodies, masculinity and eating or cooking, men's food work in paid and unpaid settings, and the history of scientific and nutrition discourses relevant to masculinity. Papers might include inquiries into households, schools, farms, food processing industries, fast food restaurants, street vendors, commercial kitchens, literary texts, media representations, and international political economy. We are interested in interdisciplinary work from the social sciences, humanities and sciences, and we particularly encourage visual studies.

Submission of Manuscripts: Papers should be twenty-five pages maximum, including references, typed double spaced, with pages numbered consecutively and margins of at least one inch on all sides. Papers should be written in clear, accessible prose, cite relevant literature, and include an abstract of no more than 150 words. Authors are strongly encouraged to submit manuscripts as an email attachment in MS Word or Wordperfect to ajulier@smith.edu. Alternatively, authors may send two copies of the manuscript and copy on disk to Prof. Alice Julier, Tyler Annex, Sociology De-

partment, Smith College, Northampton, MA 01063, USA. Manuscripts should, if possible, be submitted in English, though exceptionally the editors will accept papers in other languages for translation. Further instructions can be obtained from the journal's webpage at <http://www.tandf.co.uk/journals/titles/07409710.html>

Deadline for Papers: Paper submissions accepted through January 15th, 2003, but earlier submissions are strongly encouraged.

Call for Papers: Food Globalization

Foods have traveled, at different speeds of course, throughout history, but the recent upheaval over globalization warrants a new look at ongoing processes by which foods and foodways have spread over the world. We are seeking papers that address issues concerning the proliferation, mingling, and extinction of foods and culinary habits at any time and place. We especially favor research that speaks to an interdisciplinary audience and that presents arguments based on examination of data, whether it be nutrients, historical records, ethnographic information, literary analysis, recipes, or other sorts of material.

Submission of Manuscripts: Papers should be twenty-five to thirty pages, including references, typed double-spaced, with pages numbered consecutively and margins of at least one inch on all sides. Papers should be written in clear, accessible prose, cite relevant literature, and include an abstract of no more than 150 words. Authors are strongly encouraged to submit manuscripts as an email attachment in MS Word or Wordperfect to either editor-in chief: Martin Bruegel, INRA-CORELA, 65 Bld. de Brandebourg, 94205 IVRY sur Seine Cedex, France, bruegel@ivry.inra.fr or Carole Counihan, Sociology-Anthropology Department, Millersville University, Millersville, PA 17551, USA, carole.counihan@millersville.edu. Manuscripts should, if possible, be submitted in English, though exceptionally the editors will accept papers in other languages for translation. Further instructions can be obtained from the journal's webpage at <http://www.tandf.co.uk/journals/titles/07409710.html>

Paper submissions accepted through August 1, 2003, but earlier submissions are strongly encouraged.

Call For Book Reviews and Review Essays

Eating and drinking are total social facts whose exploration and explanation require the cooperation of scholars across disciplines. We seek volunteers to write book reviews or review essays based on significant works in the field. Reviews should state the argument of the book and discuss the evidence offered as well as give a critical appraisal of the work. Reviews should also comment on novel insights, raise questions of methodology, and indicate avenues for further research. Reviews should be 750-1500 words. The length of review essays will be specified by the book review editor. Please send ideas or inquiries to:

Dr. Derek Shanahan
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