

Power Cuisines, Dietary Determinism and Nutritional Crisis: The Origins of the Globalization of the Western Diet

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Food looms large in the globalization debates. Both proponents and opponents of globalization, both those who bring an economic analysis to bear and those who prefer to talk about culture, point to McDonalds, Nestl¹, ADM, Cargill, the Rockefeller Foundation and the FAO in support of their arguments. The role of such organizations in spreading the western diet, with its heavy emphasis on wheat bread, beef, and dairy products, far beyond its original home in the countries of the so-called Atlantic economy cannot be denied.

My question, though, is why have consumers by and large been happy to accept new foods such as wheat bread, hamburgers, and condensed milk? Important as revolutionary changes in agriculture, growth in food processing, extensive transportation networks, and aggressive marketing by multinational corporations have been, they cannot be the whole story. People are quite capable of rejecting new foods in the face of hunger or even starvation as history makes clear. Europeans resisted replacing their familiar grains—wheat, oats, and rye—with potatoes for more than a hundred years in spite of constant government badgering. Having accepted the potato, both the Irish during the Famine and other northern Europeans in World War I found maize, a strange grain and one associated with animal feed, unpalatable. American POWs captured in the Korean War often refused the rations offered by their captors on the grounds that they were repellent and as a result died of diseases brought on by malnutrition.¹

To understand why the western diet has been accepted, then, we need to look at what made consumers in many parts of the world receptive to western foods by the middle of the twentieth century. As my examples, I shall take two foodstuffs, wheat bread and beef, and two countries, Mexico and Japan (though Italy, Brazil, Turkey, and Iran would all be excellent alternatives).

The western diet is a relative newcomer on the world scene. Inspired by new Paracelsan principles of nutrition and digestion, it was invented around 1650 in England, France and Holland and promoted as healthier than the cuisine then dominant across Europe, the cuisine informed by humoral theory and associated with Catholic, Hapsburg southern Europe. That cuisine relied not on beef but on lamb and pork and valued rice as well as bread.

The substance of the western diet may have differed from that of its predecessor but the two diets shared some important features. First they were both power cuisines, that is they were cuisines for the powerful and they were heavy in foodstuffs reserved for the powerful, above all meats (or expensive surrogates) and elite grains. Thus, they were eaten by only a tiny fraction of the population. Everyone else, the common people, ate diets that were largely carbohydrate, largely made up of lesser grains (millets, oats, rye, or barley) or roots and tubers.²

Second, underlying the distinction between power cuisines and common cuisines was a dietary determinism, that is the belief that what one ate determined how strong and healthy one was, how intelligent one was, and the quality of one's moral fibre. From antiquity on, physicians and their elite patients were of one mind that power foods created and maintained their power, while common foods sufficed for the lesser demands of ordinary people.

Third, the western and the southern European power cuisines were part of a global network of such cuisines stretching from China and Japan through India, Persia, Turkey to New Spain and Peru.³ Power cuisines had originated with the civilizations of Sumer, Egypt and the Indus Valley and for five thousand years successive ruling classes had emulated and emended the cuisines of their predecessors and competitors, the constant throughout being a prudent dietary determinism.

In the years following 1650, the western power diet evolved in tandem with western nutritional science, the two mutually reinforcing each other. By the 1830s and 40s, scientists had identified the two major components of food: the nitrogenous or azotized (our proteins) and the carbonaceous (our carbohydrates). Enthusiastic about their discoveries, scientists made bold claims about the power of

proteins. Proteins, argued the famous German scientist, Justus Liebig, were the only true nutrients.⁴ Without them, added the French scientist, Geoffroy Sainte-Hilaire, mental activity ground to a halt. Challenges to such extreme claims were mounted in the succeeding fifty years. Indeed the very necessity of protein-rich diets was questioned by some trained nutritionists and some others of radical religious persuasion such as Sylvester Graham (of the Graham cracker) and the Seventh Day Adventists (including the inventor of Cornflakes, John Harvey Kellogg). Notwithstanding as the nineteenth century drew to a close, most scientists and doctors concurred that the two pillars of the healthy diet (along with salts, water, and perhaps certain appetite stimulants such as tea, coffee or spices) were carbonaceous and nitrogenous foods. They enshrined beef as the most concentrated of the nitrogenous foods and wheat, high in nitrogen and with gluten similar to animal proteins, as the best of the carbonaceous.

In northwest Europe and the United States, the well-to-do embraced the power diet of bread and beef. Housewives snapped up Liebig's beef extract which he promoted as equivalent to the flesh itself. British middle-class women referred to Mrs. Beeton's Household Management (1861) in which she ranked the cereals according to their respective richness in alimentary elements: . . . Wheat, and its varieties, Rye, Barley, Oats, Rice, Indian Corn. The moral was that In our own times, and among civilized peoples, bread has become an article of food of the first necessity, and properly so, for it constitutes of itself a complete life-sustainer, the gluten, starch and sugar, which it contains, representing azotized and hydro-carbonated nutrients, and combining the sustaining powers of the animal and vegetable kingdoms in one product.⁵ Americans heard the same story from Sarah Hale, the author of the popular Good Housekeeper (1841): animal food strengthens the reasoning power, or the brain, the organ of the mind, better than vegetable food could do.⁶

Given that all global elites were dietary determinists, accustomed to coopting and adapting coming power cuisines, it is no surprise that they quickly began experimenting with the power diet of the increasingly powerful western nations. They opted for its most elaborate and expensive form, French haute cuisine. From St Petersburg to San Francisco, from Tokyo to Mexico City, canny chefs and entrepreneurial restaurateurs and hoteliers were quick to cater to these tastes. In Mexico, for example, the well-to-do, who ate a version of the older Hapsburg cuisine, now flocked to cafes and restaurants based on French models, enjoyed French cuisine served at state functions, made sure that their daughters learnt French cooking, and read in the *Nuevo Cocinero Mexicano en Forma de Diccionario* (1888) that the meat of the ox is one of the best foods and one of the most nutritious . . . the most appropriate to restore the strength, drained by violent exercise or hard work.⁷ In Japan, where the elite had eaten white rice and fresh fish, the Emperor Meiji set the tone. On January 24th 1872 he ate beef in public. At the same time he abolished the Prohibition of Killing Law, the antecedents of which went back to 676. Soon the elite could eat French cuisine at the Imperial, the new western-style hotel in Tokyo, in railroad dining cars, and of course, at formal, official banquets in the Palace.⁸

What we have thus far is simply one more set of expropriations of a new power diet, interesting, but not enough in itself to set the stage for the late twentieth century globalization of the western diet. To understand that we must look at one further feature of the western diet, namely its extension to all social classes at the beginning of the twentieth century. In England, for example, by the 1860s 90% of all breadstuffs (bread, crackers, biscuits, etc.) were made of wheat.⁹ In the United States between the 1880s and the 1930s wheat bread and beef displaced the earlier diet of maize (as hominy, grits or corn bread) and salt pork except among the southern poor.¹⁰ For a variety of reasons, prominent among them the perception that modern nations needed well fed (and hence strong and intelligent) factory workers and soldiers not just sluggish agricultural laborers, the powerful, far from resisting this change, encouraged it.¹¹ For the first time in history whole nations were eating power cuisine.

For many scientists, politicians and writers this democratized power diet of white bread and beef, rather than climate or heredity for example, explained the west's industrial prowess, intellectual achievements, and above all its overseas empires. Sarah Hale reminded her readers that the portion of the human family, who have the means of obtaining [animal] food at least once a day . . . hold dominion over the earth. Forty thousand of the beef-fed British govern and control ninety millions of the rice-eating natives of India. Edwin Lankester, a British science popularizer, baldly stated that Those races who have partaken of animal food are the most vigorous, most moral, and most intellectual of races.¹² A well-known Australian doctor assured the readers of his dietary text that Rice is, from an economical point of view, a wretched article of diet . . . We might expect to find rice-eaters everywhere a wretched, impotent, and effeminate race, and such is the case.¹³ The growing evidence that eating large quantities of rice or maize caused beriberi or pellagra reinforced such low opinions.

The western nations introduced a variety of policies to make sure their peoples ate the power diet. In the United States, for example, immigrants' diets were scrutinized. Where they appeared to fall short, as in the case of newly arrived eastern and southern Europeans, home economists moved in to convert them to white bread, milk and beef. Where they appeared totally foreign, as in the case of the Chinese, the fact could be used to argue a change in immigration policy. You can not work a man who must have beef and bread, and would prefer beef alongside of a man who can live on rice. In all such conflicts, and in all such

struggles, the result is not to bring up the man who lives on rice to the beef-and-bread standard, but it is to bring down the beef-and-bread man to the rice standard, Ó campaigned Senator James Blaine. His line was echoed by the President of the American Federation of Labor, Samuel Gompers, in his 1902 testimony to the US Senate, *Man vs. Rice. Some Reasons for Chinese Exclusion*.¹⁴

For the British, it was the diet for the colonies that was at stake. Most doctors argued that, while the colonizers should stick to their empowering western cuisine, they should be wary of introducing it to the colonized. For the European a diet of sago and rice was a low diet Ó to be eaten by convalescents. For the Asian, it was likely to be østimulant and injurious. Ó¹⁵ A minority dissented. The leading Dutch nutritionist, Jacob Moleschott in *The Science of Foodstuffs for the People* (1850) protested that potato-eaters had no chance of competing with wheat-eaters. øSluggish potato bread, is it supposed to impart the power for labor to the muscles, and the enlivening verve of hope to the brain? Poor Ireland . . . You cannot win! For your diet awakens powerless despair, not enthusiasm, and only enthusiasm is able to blow over the giant [England] through whose veins courses the energy of rich blood. Ó¹⁶ Nor was rice much better. øAs long as the Javanese live mainly on rice . . . they will be subjugated by the Dutch. It is undeniable that the superiority of the English and the Dutch over the native populations of their colonies is in the first place a superiority of the brain, but this superiority rests on a superiority of the blood, which in turn depends on the quality of nourishment. Ó¹⁷

With the fate of nations, not just individuals, now attributed to diet, one nation after another began to believe it had a nutritional crisis on its hands. If a nation was to emulate the modern industry and modern armies of the west then, argued many, its population had to eat the strengthening western diet. Although for centuries states, as part of the implicit pact that maintained civil order, had tried to make sure the poor were fed using devices such as price controls on the staple food, government granaries, charity from religious orders and civic authorities, more or less forced imposition of high-yielding but unpopular staples, work houses, and rationing, never had they dreamed of extending the power cuisine to the entire population. Quite the contrary: conspicuously consuming power cuisine was one of their defining prerogatives. Now that had to change. Not without debate, countries such as Mexico and Japan began creating policies to ensure their citizens consumed an economical version of the bread and beef diet.

In Mexico intellectuals such as Justo Sierra had expressed concern about the debilitating indigenous diet as early as the 1880s. The issue was brought to a head, though, in 1899 by Francisco Bulnes, a prominent if controversial member of the modernizing, French-leaning Porfirian elite, in his book *The Future of the Hispano-American Nations*. He divided the world into three races: wheat eaters, rice eaters and maize eaters. Wheat eaters had established all the great civilizations of antiquity, Egypt, Vedic India, Greece and Rome. Wheat eaters, even in tiny numbers, had overthrown the seemingly powerful Aztec and Inca empires. Wheat eating Britons had the whip hand over Irish potato eaters and had established a great Asian empire at the expense of rice eaters. Bulnes cited Liebig as having shown that we needed 130 grams of protein a day and Geoffroy Saint-Hilaire as having proved that without meat the brain stopped functioning and civilization became impossible. This explained why the rural poor, who ate a vegetarian diet of maize, salt, beans and pulque, were so sluggish. To maintain even their physical energy, let alone their mental energy, they would have to consume 2,300 grams of maize daily to get 130 grams of protein. This meant something like seventy tortillas. No one expected that even the hungriest campesino could down that number. If they changed to wheat bread, they would need only 1,400 grams, that is three loaves, still high but perhaps possible.

Those who believed national unity depended on recognizing the indigenous contribution to Mexico's history, dissented. Andr's Molina Enrêquez, for example, in *Los Grandes Problemas Nacionales* (1909) argued that the maize that constituted the diet of mestizos ørepresented in an absolutely indubitable manner the national cuisine. Ó¹⁸ Muralists such as Diego Rivera featured maize prominently and the well known poet Ramón Lopez Velarde began his poem, *La Patria*, øPatria: Your surface is maize. Ó

Nonetheless Mexican leaders continued to harbor doubts about maize. From about 1900 to about 1950, the countrys leaders tried one means after another to reduce dependence on this particular grain. The anthropologist, Manuel Gamio, who had denounced Bulnes as a racist and who headed the indigenismo movement, nonetheless argued that maize should be replaced by soy beans. The politician and intellectual, Jos¹ Vasconselas, minister of education from 1921 to 1924 and architect of Mexico's system of rural schooling, believed that if the country were to progress Mexicans should give up maize for wheat.¹⁹ From 1921 on at least some schoolchildren received free breakfasts of bread, beans and coffee. School teachers and social workers instructed rural women in the arts of making bread and macaroni and cheese. Sociologists used the continued consumption of tortillas as a measure of the social backwardness of rural areas in the 1940s.

Food processing became industrialized, benefitting from the governments investment in infrastructure. Modern steel roller mills for wheat had been built in the first half of the twentieth century, long before mills for processing maize had even been invented.²⁰ Factories turned out soda crackers and milk processing plants produced condensed and dried milks. Efforts to modernize agriculture, interrupted by the

Revolution, were renewed in the 1930s at least on the large irrigated farms of the northwestern states. The government began modest support for wheat farmers, instituting a network of wheat storage facilities. Soon the programs escalated and in 1938 President Cordenas created a state food agency (its name changed with bewildering frequency) designed to stabilize prices and prevent urban unrest. Although eventually extended to include maize and beans, subsidies for wheat came first. In 1942, at the invitation of the Mexican government, the Rockefeller Foundation began the research that led to the Green Revolution. Although maize again was included, it was the wheat production that quadrupled in two decades.

In the towns, workers began to pick up *tortas compuestas*, wheat rolls with meat and condiments. In town and country alike, mothers satisfied hungry children with a snack of soda crackers and canned tuna. In the first national census, carried out in 1940, 45 percent of Mexicans reported that they ate wheat at least occasionally. A decade later, 55 percent reported eating it daily.²¹

In Japan we find many of the same themes, the major difference being that (as in France) it was the military that introduced the rural poor, their major source of conscripts, to bread and beef.²² Like their western counterparts, the military leaders decided that standardized rations of cheap, nourishing food would make planning easier even as it made their troops more effective. Military doctors such as Sato Susumu, educated in Europe, appointed Army Surgeon General in 1895, and author of an early text incorporating western nutritional theory, *New Theory of Dietary Cure*, published in 1888, wanted to westernize military diets. Unhappy with the physical condition of the conscripts whose average height in 1887 was only about 5 feet compared to the Dutch average of just under 5' 6", they agreed with the vociferous pro-bread group that argued that rice, the food of country bumpkins (though in fact it was the rare country bumpkin who could afford rice), should be abandoned in favor of bread. The Army surveyed the conscripts diet, carried out a nutritional analysis, compared it with western diets, and recommended improvements. The Navy tried to implement the new diet immediately, serving bread and biscuits instead of rice. But the western diet was still expensive and the proponents of rice had not given up.

Indeed the pro-rice group had responded with consummate panache.²³ They had arranged for sumo wrestlers to heave backbreaking sacks of rice over their heads in front of foreign journalists gathered at the Imperial Hotel. The wrestlers could pull this off, explained one of their number, because they ate Japan's native food, rice grown on Japanese soil. Rice, which was 80% food, strengthened whereas meat, which was 70% water, weakened. It was not rice that caused beriberi but the germs that western science had recently discovered. For a while both Army and Navy added rice, but not western foods, to the military diet.

But just as the proponents of maize did not prevail in Mexico, the proponents of rice did not prevent the rise of wheat in Japan. By the 1920s the Army and Navy were both incorporating western-style dishes in military diets. By now, intellectuals, restaurateurs, home economists, cook book authors, and food processors, enthusiastically supported by the government, had adapted western dishes to Japanese tastes and created the infrastructure to provide the ingredients. According to intellectuals, such as Inoue Tetsujiro, professor of philosophy at Tokyo University, even though Japanese cuisine was more refined western food packed more nutritional punch. As he put it in 1910, *Japanese food is simple and flavoursome, originally good for mouth and stomach, but Western food makes us enjoy a rich taste and a nutritional value.*²⁴

The promotion of beef had begun even before Emperor Meiji's retraction of the anti-meat laws and continued for decades. In 1869 the Finance Ministry had set up the Cattle Company to coordinate the sale of beef, milk and dairy products. In 1871, they produced a how-to manual on beef-eating. The hero of a play called *Sitting Around the Stewpan*, staged the same year, proclaimed that beef eating measured Japan's progress toward civilization. Only philosophically-ignorant savages could say this conflicted with the teachings of the Buddha. When even a leading tea master, in a book, *Theory on the Improvement of the Japanese Race* (1884), promoted beef and dairy products who could disagree? By 1877 nearly five hundred restaurants in Tokyo sold a forerunner of *sukiyaki*, thin slices of beef with vegetables and bean curd simmered in a sauce of water, sugar, soy and sake.

The Japanese government established Encouragement of Industry Offices where foreign contractors taught entrepreneurs western methods of food processing. Between the 1880s and the 1920s, dozens of companies started up. Besides Japanese specialties (soy sauce for example) they produced Worcester sauce, canned meats and fish, dairy products and canned tomatoes. By 1895 Japan had acquired flour milling machinery and from 1905 wheat flour was widely available.²⁴ Soon Tokyo had over a hundred bakeries turning out bread, by then a popular snack food. Between 1877 and 1900, the industrialization of food, much of it western style, accounted for 40% of Japan's economic growth.²⁵

Using newly available ingredients, street stands, restaurants and take out places offered Japanese versions of western dishes by the 1920s: omelettes, croquettes, *hayashi rice* (hashed beef rice), *tonkatsu* (breaded pork cutlets) and curry. These were deliberate inventions not accidental occurrences as we can see from the case of curry. When a western expert, working at the Sapporo Agriculture College in Hokkaido, discovered that his students preferred their familiar millet to the rice he was supposed to introduce, he made it more acceptable with a British-style curry sauce based on a fat-flour roux and flavored with *Crosse &*

Blackwell curry powder. Womens colleges and private cooking schools such as the Akebori Cooking Class introduced their middle-class students to these Anglo-Japanese dishes. French haute cuisine was too labour-consuming and troublesome,²⁶ as Tetsuka Keaneko, an instructor at the Japan Womans College, sniffed. As democratic as American homes are, and as unsophisticated as the English homes are, so extremely simple is their food, and easily adaptable for Japanese homes.²⁶

Thus by the 1920s the military could draw on suppliers of western foods and on a repertoire of western dishes adapted to Japanese taste. Western-style dishes (meat, lard, potatoes, fried dishes and oil dressed salads) were cheaper and more calorific than Japanese dishes. This was a big help in meeting the goal of 4000 calories a day per person (more than double the estimated daily intake of 1,850 calories of country people at the end of the nineteenth century) set in 1929.²⁷ Recruits saw western-style dishes as national not regional, as upscale not common, and they were encouraged to join up in droves. Young men who had been raised on one-pot meals of millet, taro, and other grains and roots and tubers, with a few vegetables such as daikon or sea vegetables to add flavor and the occasional bite of salted fish, found themselves sitting down to curry rice. In the army they might also have fried hamburgers with boiled potatoes, simmered pork and chopped vegetables thickened with starch and seasoned with curry powder, salt and sugar, croquettes (korokke) of minced fish or meat, boiled crushed ships biscuits flavored with sugar and salt, or donuts (donatsu). In the Navy, besides the now ubiquitous curry, stew, and croquettes, they had macaroni, beef, potatoes, onions and carrots in a white sauce (makaroni bifu), boiled potatoes dressed with mustard, sugar, miso and vinegar, and ships biscuits fried in sesame oil and seasoned with sugar.

In the wake of World War II, state policies reversed and the native grains were promoted once again. In Mexico, Francisco de Paula Miranda, director of the Institute of Nutrition founded in 1942, and his American colleagues made the first serious study of an indigenous diet, that of the Otomi, in 1943 and found it much more nutritious than had been assumed.²⁸ Maize, formerly a grain of the poor, was promoted to the symbol of national unity as intellectuals, cookbook authors, dieticians and politicians celebrated its centrality to the life of the country. In Japan rice, formerly an elite grain, was proclaimed a food for everyone and a meal composed of rice and three (rice, soup, pickle and a protein dish) the national dish. In both countries, collective memory was that these were the ancestral foods of the people.

The reality was though that bread and beef by now were rolling along with near-unstoppable inertia in Mexico, in Japan, and we may assume in other countries too. Farmers had learnt to plant wheat and raise beef, food processors had wheat mills working, cracker factories in full swing, canneries turning out processed pork products and tuna, and, in short order, bakeries for the new sliced, wrapped wheat loaves. Housewives had cookbooks full of recipes for western-style dishes. Country people found crackers and the new wrapped loaves good snacks and emergency supplies. Soldiers left the forces more familiar with hamburgers and croquettes than with millet and sea vegetables.

Thus the answer to my question—why were people prepared to accept western foods in the second half of the twentieth century?—is that they had been well prepared to do so. Convinced that the scientific credentials of a democratized western diet were ratified by the success of western nations, relying on the venerable and widely accepted theory of dietary determinism, one nation after another had taken measures to convert their citizens to the western diet to avert what they saw as a nutritional crisis. Thus in the 1950s when the nutritionists of the FAO began preaching the importance of protein, they found a ready audience. When the United States began shipping its surplus wheat as aid following the passing of Public Law 480 in 1954, the shipments were welcomed. By the early 1960s, this wheat amounted to over one third of the world wheat trade and wheat itself was second only to petroleum in the commodities traded globally.²⁹ The subsequent success of McDonalds, ADM, Cargill, and other such organizations depended on a climate of opinion created originally by nutritionists.

Notes

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² Rachel Laudan, *Power, Cuisine and World History*, unpublished paper prepared for the World 2000 Conference, Austin, Texas, February 2000.

³ Rachel Laudan, *The Birth of the Modern Diet*, *Scientific American*, August 2000, 80-85.

⁴ Kenneth J. Carpenter, *Protein and Energy: a Study of Changing Ideas in Nutrition* (Cambridge: Cambridge University Press, 1994).

⁵ *Mrs. Beeton's Book of Household Management* (London: S. O Beeton, 1861, reprint New York: Simon and Schuster, 1986), 830-32.

⁶ Sarah Josepha Hale, intro. Janice Bluestein Longone, *Early American Cookery or The Good Housekeeper, 1841* (New York: Dover, 1996), 21.

- ⁷Salvador Novo, *Cocina mexicana or historia gastronomica de las ciudad de M'xico* (M'xico: Pärtico, 1993), ch. 4 and 5; Ren' Rabel Jara, *La Bella Epoca: La Cocina Mexican a trav's de los siglos, vol. VI* (M'xico: Cléo, 1996), 6-24. *Nuevo Cocinero Mexicano en forma de Diccionario* (1888) facsimile reproduction (Mexico: Porrúa, 1992), 84.
- ⁸Nan Lyons, *Imperial Taste: A Century of Elegance at Tokyos Imperial Hotel* (New York: Kodansha International, 1990), chapter 2. Yoshida Mitsukuni and Sesoko Tsune, eds. *Naorai: Communion of the Table* ((Tokyo: Mazda, 1989), 59.
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- ¹¹Harmke Kamminga and Andrew Cunningham, eds. *The Science and Culture of Nutrition, 1840-940* (Amsterdam and Atlanta, Georgia: Rodopi, 1995).
- ¹²Mark Finlay, *Early Marketing of the Theory of Nutrition: The Science and Culture of Liebig's Extract of Meat*, Ó Kamminga and Cunningham, eds. 1995, 48
- ¹³S.M. Caffyn, *How, When, and What to Eat: A Guide to Colonial Diet* (Melbourne: W.H. Williams, 1883), 11.
- ¹⁴U.S. Senate, 57th Congress, 1st session, Doc. No 137 (Washington: GPO, 1902), 24. Quoted by Levenstein, *Revolution at the Table*, 24.
- ¹⁵David Arnold, *Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth Century India* (Berkeley and Los Angeles: University of California Press, 1993), 42 quoting Twining, *Clinical Illustrations* 1835.
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- ¹⁸Jeffrey Pilcher, *Que Vivan Los Tamales: Food and the Making of Mexican Identity* (Albuquerque: University of New Mexico Press), ch. 4. Andr's Molina Enrêquez, *Los Grandes Problemas Nacionales* (1909), 279.
- ¹⁹Jos' Vasconselas, *El Tormento* (Mexico City: Ediciones Botas, 1938), 331.
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- ²²Eugen Weber, *Peasants into Frenchmen: The Modernization of Rural France, 1870-1914* (Stanford: Stanford University Press, 1976); Katarzyna Cwiertka, *The Making of Modern Culinary Tradition in Japan* (Leiden, 1999), ch.5.
- ²³Emiko Ohnuki-Tierney, *Rice as Self: Japanese Identities Through Time* (Princeton: Princeton University Press, 1993), 105-107, *ø*Rice as a Strong Diet, Ó from the *Hawaiian Commercial Journal* quoted in the preface to Mrs. Samuel G. Stoney, *Carolina Rice Cookery Book* (1901) reproduced in Karen Hess, *The Carolina Rice Kitchen* (Columbia, SC: The University of South Carolina Press, 1992), 7-9 of facsimile.
- ²⁴Keiki Ohnuma, *ø*Curry Rice: Gaijin Gold *È*How the British Version of an Indian Dish Turned Japanese, Ó *Petits Propos Culinaires* 52 (1996), 11.
- ²⁵David S. Landes, *The Wealth and Poverty of Nations* (New York: W.W. Norton, 1998), 378.
- ²⁶Cwiertka, *The Making of Modern Culinary Tradition*, 88 and 89, quoting from Inoues introduction to Sakurai Chikakos *Western Cookery Textbook* (1910) and a 1911 article by Tetsuka.
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- ²⁹Harriet Friedman, *ø*Distance and Durability: Shaky Foundations of the World Food Economy, Ó *Third World Quarterly* 13 (1992), 372-73.

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some large emerging countries. Economic growth, urbanisation and rising affluence are increasingly bringing with them higher demand for convenient, processed foods, for meat, and for dairy products – in short, a more western diet. In the rich world, obesity afflicts the poorer segments of society, because healthy foods are frequently more expensive. Globalization of Diabetes. The role of diet, lifestyle, and genes. Frank B. Hu, MD, PHD. From the Departments of Nutrition and Epidemiology, Harvard School of Public Health, Boston, Massachusetts, and the Department of Medicine, Channing Laboratory, Brigham and Women's Hospital and Harvard Medical School, Boston, Massachusetts. The dynamics of the diabetes epidemic are changing rapidly. Once a disease of the West, type 2 diabetes has now spread to every country in the world. Once – a disease of affluence, it is now increasingly common among the poor. Once an adult-onset disease almost unheard of in children, rising rates of childhood obesity have rendered it more common in the pediatric population, especially in certain ethnic groups. 19, 2001 2002 – Fruits of the Oven, Simple Cooking 78 (2002), 1,7. – A Physician in the Kitchen: Doctors and the Evolution of the Western Diet, Helix: Amgen's Magazine of Biotechnology 11 (2002), 48-55. (with Jeanelle Kam) – Celebrating a Hawaiian Luau, Petits Propos Culinaires 2003 – We Never Ate Mexican Food, Repast: Quarterly Newsletter of the Culinary Historians of Ann Arbor 9. (2003), 1-3. Essay Review of Near a Thousand Tables by Flipe Fernndez-Armesto, Gastronomica (Winter 2003). 2000 – Power, Cuisine and World History, World 2000 Conference, Austin, Texas 7 2001 – Power Cuisines, Dietary Determinism and Nutritional Crisis: The Origins of the Globalization of the West. American Historical Association Invited Conference, Library of Congress.