

for example, the director of the Reich Health Office's Division of Nutritional Physiology proposed an effort to find new ways to exploit the forty million kilograms of cattle blood discarded every year in slaughterhouses. The Nazi nutritionist calculated that the wasted blood had an equivalent protein value of 100,000 head of cattle weighing five hundred kilograms each.¹²⁶ Many of the foods commonly eaten in Germany today trace to efforts to utilize every last scrap of food (think of blood sausage or poppy seed cakes made from crumbs)—but Germans of the 1930s and early 1940s seem to have taken these efforts to an extreme. (Recall, though, Upton Sinclair's critique of Chicago meat packers' using every part of the pig "except the squeal.") Ventures such as these must have given rise to the myth that the Nazis used human fat from Jews to make soap; many other personal effects were in fact "recycled"—gold from teeth, eyeglasses, prosthetic limbs, and even human hair—but fat, apparently, never was.¹²⁷

Performance studies must be understood as part of the larger quest to rationalize resources. The Nazis were not the first to carry out such studies (the Royal Society of London's Food Committee had calculated caloric requirements for different occupations in the 1920s),¹²⁸ but Germans took this process further than anyone else—and with deadly consequences. Herbert Marcuse used to point out that reason in the small can buttress irrationality in the large; the rationalization of German food and work may have allowed certain short-term gains for some, but the militaristic inhumanity uniting these separate parts led down the road to genocide. Ian Kershaw reminds us that the road to Auschwitz was paved with indifference; technocratic myopia is always welcomed by the scheming dictator.

FOODS FOR FIGHTING CANCER

The Nazi war on cancer was by and large a campaign waged with the goal of prevention, but novel treatments were also explored in many quarters. Orthodox treatments involved some form of surgery or radiation, but there were many other options. Heavy met-

als were a popular remedy, as were countless forms of chemotherapy, heliotherapy, protein therapy, vaccine therapy, viral therapy, hormone therapy, and therapies based on extracts of everything from mistletoe and hemlock to cobra venom, Chinese rhubarb, and formic acid.¹²⁹ Fischer-Wasels explored a therapy based on uranium salts, while a Dr. Flesch-Thebesius of Frankfurt tested a therapy based on injections of fruit juice.

Dietary therapeutics were enormously popular in Germany—more so here than anywhere else, according to observers at the time.¹³⁰ The most common view was that excessive nutrition favored tumor growth while hunger inhibited it,¹³¹ but countless other theories found expression. Thousands of popular books, pamphlets, and articles extolled the virtues or vices of particular foods or elements within foods—everything from aluminum to zinc. (As already noted, a widely debated fear of the late 1920s was that the use of aluminum pans and utensils was responsible for the upsurge of cancer.)¹³² Dietary causes debated at this time included alcohol, carbohydrates, cholesterol, coffee, eggs, milk, potassium, pork fat, potatoes, protein, salt, sugar, tea, tomatoes, and even water; cancer was said to be caused by overeating, by constipation, by foods that were too salty or too hot or too spicy, by sharp or jagged teeth, by the inability to metabolize protein, or by putrefying poisons in the intestine. Tumors were supposed to be hindered by fruit, milk, periodic fasting, raw foods, diets low in meat or high in carbohydrates, and myriad other culinary variations—no food or eating habit seems to have been spared from credit or blame at some point or another.

Cancer researchers spent a lot of time trying to sort out facts from fads in such matters. Selenium was tested as a cancer-fighting agent, as were bismuth, calcium, gold, iodine, magnesium, potassium, tellurium, and half a dozen other elements. The impact on tumor transplants was examined, as was the effectiveness of various substances in accelerating or retarding the growth of cancers caused by coal tar and other carcinogens.¹³³ Foods were tested for their capacity to starve or feed a tumor, to render it acid or alkaline; therapies were designed to slow the growth of tumors by rendering them oxygen-rich or oxygen-starved; therapies were