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Nature and the Nazi Diet¹

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This article investigates the role of natural foods and farming in Nazi Germany. Why did the state encourage Germans to eat and farm more naturally? What did "natural" mean in the context of this genocidal regime? By what means were Germans encouraged to take up these practices and to what degree did they do so? This article explores these questions by tracing the assimilation of natural foods and farming to the regime's racial, political, and economic goals. Eating more naturally, Nazi leaders believed, would promote racial health, boost physical performance, and maximize the efficient use of resources, all qualities needed to fight and win the coming war. Natural foods and farming, in short, belonged to the biopolitics of fascist modernity. The article develops this claim in two sections, one on efforts to make German diets more natural, the other on an early form of organic farming known as biodynamics. The conclusion considers the implications of these findings for food historians more generally.

A special display at the 1934 exhibit *German People–German Labor* underscored the centrality of food to Nazi plans for war [See Figure 1].² Under the banner "Today as yesterday: Remaking the German kitchen," four panels instructed viewers on the military aspects of diet reform. The bottom row invoked the eighteenth-century past, when Frederick the Great fought a series of wars to solidify Prussia's status as a Great Power. As the two images implied, persuading the nation to substitute potatoes for grains—had been crucial to this success.³ By the 1930s, national eating habits began to worry military planners anew. As the top left panel showed, Germans had grown accustomed to a mixed diet in which animal rather than plant foods occupied the center spot.⁴ Although tasty and popular since the late nineteenth century, this meaty diet had made the nation heavily reliant on food imports,

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FIGURE 1 "Today as yesterday: Remaking the German kitchen." This display at the 1934 exhibition *German People–German Labor* illustrates the role of food in the first Four Year Plan, an economic program designed to prepare the country to fight another war. Bildarchiv Preussischer Kulturbesitz/Art Resource, NY.

and the devastating consequences of this food deficit had been seared into national memory during the First World War, when a blockade led to mass starvation, national defeat, and political revolution.⁵ As a result, achieving nutritional autarky (self-sufficiency) became a Nazi priority, and all war plans of the 1930s showed careful attention to food. The top right panel, in fact, illustrated the desired direction of change. Beef and pork were nowhere to be seen. Instead, the table featured quark (a milk by-product akin to cottage cheese), a variety of plant products (potatoes, bread, apples, and jam), fish, and eggs. As Germany's top economic planner Hermann Göring observed in 1936, "What is six months in which you will have a little less meat ... All that is not the end of the world, it is a ridiculously small thing in comparison with the great things to which we are going."⁶

If displacing meat from the table's center spot was the negative goal of the 1930s, the more positive one was to encourage Germans to embrace the so-called "natural diet" (*naturgemässe Ernährung*) instead. The top right panel indicated what this more natural diet would include. Quark, Nazi planners hoped, would replace butter or margarine. Made from the leftovers of butter production, which had previously been fed to animals, quark used domestic resources efficiently. Since Germany imported nearly 50% of its fat, quark also reduced the food deficit. Fish, especially German-caught herring, was widely touted as an excellent substitute for imported pork and beef. Dark bread made with German-grown rye, jams made at home from locally picked fruits, and German-grown apples rather than imported oranges and bananas had similar advantages. German-grown potatoes, finally, were a nutritional and caloric substitute for meat. Cooking and serving them in their unpeeled state also ensured that Germans consumed as much of the inner white flesh as possible.⁷ A more natural diet, in short, featured domestic products, minimized waste, and made scanty use of meat products and fats.

Those of us accustomed to thinking of natural diets as the property of left-leaning, anti-establishment, and even pacifist political formations will find it odd, if not disconcerting, to find them associated here with one of the most bellicose, racist, and murderous regimes of modern memory. Yet their popularity with Nazi planners raises important questions both about German fascism and natural diets more broadly.⁸ Why did Nazi Germany need the natural diet and what did "natural" mean in the context of this genocidal regime? By what means were Germans encouraged to take up the natural diet and to what degree did they do so? What are the larger implications of this chapter in German history for the history of food politics more broadly?

This article investigates these questions by examining how advocates for a more natural diet made their case to and within the Nazi state. Focused on consumption, the first section explores efforts to change German eating habits along the lines discussed above. Focused on production, the second section then traces efforts to change German agricultural habits by encouraging farmers to embrace an early form of organic farming known as biodynamics. A modernist language of performance and production permeated both of these discussions, underscoring how valuable "returning to nature" could be to the Nazi state. Economics were at stake, as the images highlighted here suggest, but so, too, were racial health and German empire. While the regime's most infamous tools included ethnic cleansing and genocide, the counterpart to ethnic cleansing and genocide was always a whole range of programs-pro-natalist tax policies and an anti-cancer campaign, for instance-devoted to optimizing the racially desirable resources of the nation.9 And it was here, for the more "positive" project of Nazism, that advocates of the natural diet found another important pillar of support for their cause. Remaking the German table would make German bodies more fit, German soil more productive, and instill both body and soil with German racial qualities that had long been on the wane. By the time war broke out in 1939, indeed, advocates had reframed the natural diet as essential to the biopolitics of German fascism.

FORWARD TO PEAK PERFORMANCE!

Calls for making the German diet more natural had begun long before 1933. As far back as the mid-nineteenth century, the republicans Eduard Baltzer and Gustav von Struve had urged Germans to embrace vegetarianism as a social, economic, and political good. In Wilhelmine and Weimar Germany, diet became a popular theme among reformers of all political persuasions and even began to make inroads into medical and scientific circles. Among the latter, advocates for a more natural diet did not necessarily endorse strict vegetarianism, but they did urge Germans to cut back dramatically on meat and boost their consumption of plant foods instead. When the physician Erwin Liek published a popular book in 1932 linking poor dietary habits to cancer, the natural diet seemed poised to become a central concern of doctors everywhere.¹⁰

Given this long history, what did the Nazi regime have to offer that was new? Hans Reiter, head of the Reich Health Office, voiced the official answer in 1934, when he noted that the state was "taking in hand for the first time the important question of nutrition for the entire population."¹¹ Although he ignored the attempt of the War Nutrition Office to organize civilian feeding during the blockade of the First World War, Reiter also had a legitimate point. Whereas the Nutrition Office had been most concerned with the issue of quantity, Nazi reformers set themselves an even more ambitious task, which was to change not just how much but also what Germans ate on a daily basis.

This move necessitated a propagandistic sleight of hand, for the natural diet still carried generally negative connotations.¹² Reformers had to show that theirs was not a sectarian coup but a well-founded program for furthering the medical and political goals of the Third Reich. This meant that they had to erase the links with older reform movements and forge new links to other Nazi initiatives. They accomplished the former by selectively co-opting and sidelining the popular *Lebensreform* (life-reform) movement, with its often quirky attempts to remake the German lifestyle from diet and dress to spirituality and sexuality. And they pursued the latter by demonstrating how the natural diet could boost the overall competitiveness and efficiency of the Nazi state.

The effort to refashion the older discourse of Lebensreform for present needs began almost immediately. Typical was a 1933 article by Max Trumpp published in *Odal*, a monthly periodical established by Richard Walther Darré, the Minister of Agriculture and Nutrition. Blaming common "nutritional errors" for rising rates of cancer, tooth decay, digestive complaints, kidney stones, rheumatism, and hormonal disorders, Trumpp complained that Germans consumed too much meat, too little fresh produce, too much white bread, too much food saturated with preservatives, and too much alcohol. In a statement outlining the necessary direction of change, he noted that:

Food, like our whole lifestyle, must once again become more natural, simple, moderate. Plant food must once again as in olden times form

the main food. A considerable portion of this ... should be consumed daily in fresh and raw form ... Preserved foods should be used only when it is not possible to acquire fresh food. Flour and bread must be whole grain ... Meat consumption should be sharply reduced, eggs used only sparingly. Alcoholic drinks should be replaced by alcohol-free fruit juices.

Although the phrase "again as in olden times" framed this way of eating as a return to the past, other passages made clear that Trumpp envisioned the new diet as wholly in line with present needs. Those charging that it could not support the vigorous lifestyle of modern times, he noted, would do well to consider the example of Adolf Hitler, who subsisted mostly on raw fruit but achieved astonishing "physical and mental output" nonetheless. Pointing to the financial costs of caring for the sick, he concluded, "not just the doctor but also the politician must consider it a pressing matter to improve our national health and efficiency by utilizing the newest nutritional discoveries and avoiding former errors."¹³

In contrast to Trumpp's subtle cooptation, other parts of the Nazi state sought more aggressively to assimilate Lebensreform to the cult of expertise. Special commissions such as the Reichsarbeitsgemeinschaft für Volksernährung (Reich Study Group for Public Nutrition) and the Sachverständiger Beirat für Volksgesundheit bei der Reichsleitung der NSDAP (Nazi Party Committee on Public Health), for instance, brought together orthodox physicians and lay reformers. The Committee on Public Health included among its members Franz Wirz, a professor of medicine in Munich, and Hanns Georg Müller, a leader in the Lebensreform movement.¹⁴ The Study Group for Public Nutrition had an even more diverse makeup. Founded in 1933, under Reiter's leadership as an interdisciplinary consortium of groups with a stake in the nutrition question, it brought together representatives from the Reich Health Office, the Nazi Party, the Reich Food Estate (an association of private and public groups involved in growing, processing, and selling agricultural products), as well as various scientific and Lebensreform organizations.¹⁵ Both commissions preached the gospel of expertise. In a 1934 article in the Nazi Party journal Völkischer Beobachter, for instance, representatives from the Study Group for Public Nutrition acknowledged their debt to laymen of the past but insisted that a new era had begun. One of them explained that although Lebensreformer had made many valuable discoveries, they had also made many mistakes. Only modern nutrition science, the article concluded, could separate truth from error and put Germans on "the correct road" to the future.¹⁶

But what, exactly, was the correct road to the future? What did it mean to make the German diet more natural? In a negative sense, it meant removing "the artificial." Heinrich Himmler, head of state security and a follower of naturopathy, expressed a common view when he observed that "[w]e are in the hands of the food industries...The artificial is everywhere, everywhere food is adulterated, provided with ingredients which are said to make it last longer or look better or enrich it or anything else that the advertisers of the food industry care to say."¹⁷ But in a more positive sense, making the German diet more natural meant altering its racial and economic qualities so as to support the regime's most important goal: to prepare the nation to fight and win another war.

There were different ways of articulating the racial aspects of this project. Franz Wirz, for example, gave an environmental reading that tied domestically produced foods to racial fitness. "The diet of a people in its living space," he remarked in 1939, "is the result of thousands, perhaps even millions, of years of co-evolution between humans and environment, between blood and soil." Germans had abandoned their natural diet during urbanization, when they embraced imported and processed foods that made them less fit to work and reproduce. Only by orienting themselves once again to "nature-given environmental factors" and products grown on native soil, he concluded, would Germans find a way out of this national crisis.¹⁸

Otto Flössner, a nutritional physiologist at the Reich Health Office and a member of the Study Group for Public Nutrition, echoed the environmental themes voiced by Wirz but also translated the racial aspects of diet into the chemical language of modern nutritional physiology. Different races, he explained, had evolved different digestive systems suited to the foods provided by their environment. Malays, for instance, had developed stomachs ideal for digesting rice, while Negroes were physiologically suited to bananas. The natural diet for Germans was a "mixed diet" containing both meat and plant food, raised on German soil and balanced to include appropriate amounts of protein, fat, carbohydrates, minerals, vitamins, and water.¹⁹ Noting that public nutrition was now a concern of states around the world, Flössner observed that "a purposeful whole food diet is the necessary complement to race hygiene; the former is the present task of public health, the latter a future one."²⁰

Racial arguments could easily slide into economic ones. When another member of the Study Group for Public Nutrition observed in 1934 that Germans should reduce consumption of imported foods ("Danish butter, Polish eggs, California fruit, Argentine meat, Canadian wheat, French wine, tropical fruits"), he was trading on the idea that domestic foods were more natural and that the nation's "nutritional freedom" could be secured only by making the economy autarkic.²¹ Memories of food shortages during the First World War were still fresh in the early 1930s and data confirming Germany's continued inability to meet its nutritional needs without imports exacerbated fears of repeating past mistakes. As Hitler himself observed at the 1937 party congress, "[w]e have only a single economic issue remaining … : our food supply problem."²²

Whether framed as an economic or racial good, it should by now be clear that the natural diet did not necessarily entail vegetarianism. Indeed, when the regime issued nutritional guidelines in 1936, it noted that "a mixed diet is the correct diet," rejected "all diets with cultish connotations," and cautioned that vegetarian and raw food diets should be undertaken only under a doctor's care.²³ Scientific research reinforced this consensus. Adolf Bickel, a physiologist at the University of Berlin, presented evidence that athletes who ate a mixed diet performed the best at the 1936 Olympic Games.²⁴ Similarly, digestive experiments carried out at the Berlin zoo suggested that the "natural human diet" lay somewhere between that of the vegetarian nutria (an aquatic rodent) and carnivorous animals such as dogs. Even non-human primates like Bobby the Gorilla, it turned out, ate a mostly plant diet but still loved sausage.²⁵ As this latter example suggests, reformers were not simply endorsing the mixed diet of contemporary Germans as the natural one. Rather, they were suggesting that although the mixed diet was the natural one, the most natural mixed diet was one in which meat did not occupy the plate's center spot. This was already a radical claim, but one that reformers sought to distinguish from the supposedly more extreme claims made by vegetarians, fruitarians, and other such "fanatics." "National Socialism will not bring up Puritans" reassured the title of an interview with Wirz in Berliner Tageblatt.²⁶

In promoting this modified mixed diet, reformers pursued a variety of strategies. On the institutional front, they founded several scientific committees and laboratories. In 1939, Wirz became head of the Vollkornbrotausschuss (Whole Wheat Bread Committee), which sought to increase production and consumption of whole foods. "Diet," he explained, "must be in the position not only to preserve the continued existence of the nation and race, but also make them more fertile and fit." Germans should eat foods "composed according to nature," which meant banishing breads made with flour that had been chemically mistreated with bleach or mechanically mishandled by overmilling and replacing them instead with whole-grain loaves.²⁷ Perhaps most importantly, Martin Vogel became head of the newly formed Forschungs-Institut der Deutschen Lebensreform (German Life-Reform Research Institute) in Dresden in 1937. Established with the support of Lebensreform businesses and regime sanction, the institute aimed to assemble under one roof representatives from various scientific disciplines—among them nutrition science, food chemistry, food hygiene, and general biology-working together towards a unified science of natural food.²⁸

The campaign to enlighten the public proceeded on an even grander scale. Reformers sought to change not just what Germans ate but how they thought about the purpose of eating. A 1936 article in *Berliner Tageblatt*, for instance, featured Wirz replying to the headline question "What should we eat?" with a summary of the party's recommendations. "One should not be allowed to live as one wants," he explained, "but should instead ask

whether one's actions benefit or harm the nation. Nutrition must make the nation more efficient."²⁹ Reformers sought to change not just behavior but attitude, to reach deeply into private lives and transform the individualistic ethos learned in more liberal times to a more corporatist one better suited to the needs of National Socialism.

Special articles, pamphlets, and even speeches adapted this message for target groups, especially women.³⁰ In a famous 1936 radio address on the Four Year Plan, for instance, Göring admonished female listeners that "[w]e eat what the German soil yields us.³¹ This prescription echoed ones already being made by government officials in Italy and foreshadowed ones that would emerge in the United States and other countries after war broke out in 1939. Nazi planners, however, went a step further by exhorting "wartime homemakers" to remember the racial dimensions of diet.³² Flössner put the point baldly in an essay on diet and the Four Year Plan:

In her small domain, every housewife must collaborate in helping fulfill the aims of the nutritional and national economy. Pursuing healthcare does not only mean pursuing racial hygiene. The diet question is a question for today because the state is built on the generation alive now. It is therefore our duty to preserve the efficiency of the German through healthy diet and thus enable him to master any task set before him.³³

Housewives, in short, were to be on the frontline of Germany's nutritional revolution, the conduit through which the nation's racial health and physical fitness would be nurtured and maximized.

Female nutritionists took the lead in delivering this message to other women, performing important work of translation and mediation between the esoteric world of scientific research and kitchen practice. Among the most successful was Margarethe Nothnagel, who dispensed advice to help German women fulfill their duties. Nothnagel warned that excessive cooking stripped food of vital nutrients and thus constituted an offense against the Four Year Plan.³⁴ She also criticized the liberal times during which Germans had eaten grain from La Plata and fruit from the tropics. "In this way," she explained, "the harmony built up over a thousand years in an enclosed Lebensraum (living space) was destroyed; the living currents between blood and soil, to which nutrition also belongs, were broken." To help restore these links between race and environment, Nothnagel published a successful book called Harmonious Diet for Little Money Through Healthy Food.³⁵ It featured a "nutrition clock" designed to teach women "how one can through relatively small adjustments turn a faulty diet into a good one ... and make it easy to reset diet in the interest of public health and nutritional freedom." One dial on the clock allowed women to choose their main dish; linked dials then showed how well companion dishes harmonized with the main one. Goose stuffed with apples was harmonious, for instance, while chicken with rice was not, presumably because rice was imported. As this example suggests, Nothnagel followed other Nazi diet reformers in keeping meat in the pantheon of available foods. But as other entries on the nutrition clock made clear—for example, bread with milk, fruit, and honey was harmonious, whereas meat-filled sandwiches were not—animal foods were but one ingredient in the harmonious diet.³⁶

By the late 1930s, reformers had assimilated the natural diet to the regime's modernist ideology of state-managed racial and economic fitness as well as created institutions and tools for extending its reach into everyday life. Still, much remained to be done. For one thing, dietary habits proved resistant to change, at least for the short term. From 1933 to 1938, for instance, food continued to be a steady 38.8% of all imports and consumption of meat rose while consumption of potatoes dropped. More worrisome, perhaps, were the dietary recommendations issued in March of 1939 by the Ministry of Agriculture and Nutrition. Germans should eat more potatoes, fresh vegetables, fish, marmalade, artificial honey, skim milk, milk powder, buttermilk, cheese, and quark; they should maintain consumption of rye bread, baked goods, grains, beef, mutton, fowl, peas, lentils, whole milk, honey, and cocoa; and they should cut back on fats, especially from butter and pork. Diet reformers had reason both to celebrate and bemoan this statement. Milk powder, not to mention artificial honey, were domestically manufactured but far removed from their agricultural origins. Meat, moreover, retained a central role. Still, the recommendations did emphasize the importance of fresh vegetables, juxtapose meat with such potential substitutes as lentils, and extol such foods as potatoes, fish, marmalade, and quark that Germany could produce domestically.37

Reformers remained hopeful, even when the outbreak of war later that year created an environment less conducive to putting the natural diet into practice. As speeches and publications on food shifted to wartime concerns, references to the natural diet receded but did not disappear. Reformers remained caught, moreover, between their commitment to nature and their fear of being branded retrogressive. As one nutritionist observed in 1941, "[b]ack to Nature' is a pious wish, [but] today it is 'Forward to Peak Performance."³⁸ At the same time, however, reformers also began to train their eye on the postwar world. Without preaching vegetarianism, for instance, the regime issued a statement in 1941 casting the war as an opportunity to decrease meat and fat consumption, boost plant intake, and thus pave the way towards a healthier diet.³⁹ War's outbreak may have narrowed their scope for action, but in no way diminished the zeal of reformers to remake the German table.

A POTATO IS NOT SIMPLY A POTATO

Encouraging the nation to embrace the natural diet also meant pushing Germans to change how they farmed. This, in turn, entailed close attention to Nazi agricultural policy, which had both economic and ideological goals. Economically, the regime aimed to boost productivity by emphasizing industrial methods: intensive use of synthetic fertilizers, herbicides, pesticides, and hybrid crops; large estates devoted to monoculture fields; and substitution of farm machines for human labor. Over the course of the 1930s, such measures did indeed bring productivity levels up slightly and continue the long-term industrialization of German agriculture.⁴⁰ Economics, however, sat uncomfortably with the ideology of Blood and Soil, which sought to refashion peasant farmers into the vanguard of a new German empire. Darré, the Minister of Agriculture, had long argued that Germans were an essentially peasant people who should resettle the land (Soil) so as to create the social stratum from which a new racial aristocracy could grow (Blood).⁴¹ This racial aristocracy would then act as a bulwark against the nation's political and racial enemies: liberalism, socialism, and communism on the one hand, Jews, Slavs, and other racial undesirables on the other. In this context, advocates of the natural diet saw both opportunities and pitfalls. They knew, as Wendell Berry observed in a very different political context, that "eating is an agricultural act," that changing patterns of food consumption required changing patterns of food production.42 But whereas advocates had successfully made the case on the consumption side that a more natural diet minimized waste, closed the food deficit, and maximized health, they faced a more difficult battle on the production side because regime policy so clearly emphasized agro-industrial methods. Advocates thus had to make the case that a massive change to German farming could enhance agricultural productivity while simultaneously furthering the regime's ideological goals in a way that industrial methods could not.

To this end, advocates began to tout a reformist type of agriculture known as biodynamics.⁴³ Biodynamics had evolved out of a 1924 lecture series delivered by the Anthroposophist Rudolf Steiner at Koberwitz, the east Prussian estate of Carl von Keyserlingk. Steiner blamed laboratory science and market pressure for making farmers forget that plants, animals, and even the earth belonged to a living universe whose penalty for misuse was depleted soil, pest-ridden crops, and diseased livestock. A farm, Steiner believed, was not just a plot of land to be worked, but a living organism attuned to the rhythms of the cosmos. Best cared for by peasants, this farmorganism depended for its health on the vitality of its soil. Rejecting synthetic fertilizers, Steiner advocated instead the use of compost, produced right on the farm from manure or plant refuse quickened with special "preparations" made according to astrological principles. Despite this complicated basis, the farmer's goal, he promised, was simple: "to make the farm, as far as possible,

so self-contained that it is able to sustain itself." Taking these rather abstract ideas to heart, Anthroposophical farmers quickly formed an investigative circle to carry out both laboratory experiments and field trials. By 1930, they had developed a new form of farming dubbed "biodynamic agriculture" (*biologisch-dynamische Wirtschaftsweise*) and by 1933, Germany boasted a thousand or so farms and gardens being cultivated according to biodynamic principles. Reflecting back on Steiner's important lectures in 1958, Ehrenfried Pfeiffer, one of the movement's pioneers, observed that "[t]he practical method he gave for treating soil, manure and compost, and especially for making the bio-dynamic compost preparations, was intended above all to serve the purpose of reanimating the natural forces which in nature and in modern agriculture were on the wane."⁴⁴

Within Nazi Germany, this project of making agriculture more natural proved both problematic and tantalizing. Sensing a threat to its market sector, for instance, the fertilizer industry successfully pressured the Thuringian state to ban discussion and practice of biodynamics in November of 1933. Then, in a move that made the practice of biodynamics much more hazardous, the Prussian Gestapo banned the Anthroposophical Society in November of 1935 on the grounds that its worldview was incompatible with National Socialism.⁴⁵ The general press, too, echoed this hostility. One Nazi daily published a short piece poking fun at "supernatural" breads made with biodynamically grown flour.⁴⁶ Agricultural journals were similarly scathing. Professor Otto Max Popp, a well known agronomist, belittled the biodynamic "moon myth" in Deutsche Landwirtschaftliche Presse and later attacked Rudolf Steiner as a Jew in N.S. Landpost.⁴⁷ Even the literature of diet reform took an occasional swipe at biodynamics. In a pamphlet titled Devaluation of Our Food, the Study Group for Public Nutrition denied that conventionally fertilized crops were harmful to the human body and ridiculed those who put stock in occult influences and biodynamic preparations.⁴⁸

And yet, even within this hostile landscape, pockets of support for biodynamics began to develop. Advocates learned to make the case that health as well as economics and ideology were at stake. Prominent members of the Committee for Public Health and the Study Group for Public Nutrition, for instance, pointed out that Germans could be well nourished only by eating food made from plants and animals that had themselves been well nourished. This meant that agriculture, especially fertilizer, lay at the heart of the food question. As Wirz was fond of observing:

Man and his environment form a unified whole that must not be disturbed. Nowhere does Blood and Soil make as much sense as here, [where] the metabolic cycle of humans, animals, and nature is expressed as environment. Artificial fertilizers interrupt the natural metabolism between man and his environment, between blood and soil.⁴⁹ Flössner voiced similar concerns in a 1938 lecture citing research that correlated synthetic fertilizer use with increasing rates of cancer, tooth decay, and hypertension. Calling for an interdisciplinary initiative to clarify this "very acute modern problem" once and for all, Flössner reminded listeners that for plants, as for humans, nutrition was a key "external factor." "A potato," he liked to quip, "is not simply a potato."⁵⁰

The actions of Rudolf Hess were also key. Hess had been a vegetarian, consumer of biodynamic foods, and follower of naturopathy for years. As Deputy Führer, moreover, he stood second in line after Hermann Göring as Hitler's successor and thus wielded, at least in theory, a great deal of power. Alarmed by the harassment of biodynamic farmers, he used this power in 1934 to call a meeting of biodynamic advocates and powerful Nazi officials. What Hess heard impressed him enough to issue an order instructing provincial governors to cease "one-sided political debate on this topic, as it may be of significance for both public health and agricultural policy."⁵¹ Declining to mention either Steiner's name or the astrological preparations, Hess chose instead to highlight biodynamics' potential to further the regime's practical goals in medicine and agriculture.

Hess' support for biodynamics tapped a common concern among both Nazi operatives and biodynamicists with finding solutions to the crisis into which Germany had been plunged as a result of the First World War. Germans of all political persuasions knew that the country had emerged from the war agriculturally and nutritionally weakened. Not only had the blockade resulted in a sharp drop in animal stock, but the diversion of nitrate from the fertilizer industry to making explosives had depleted the soil. To make matters worse, valuable agricultural lands to the east had been lost in the post-war reckoning and memories of the insufficient quantity and poor quality of food available during the blockade lingered. All of this made securing Germany's agricultural production and food supply a red hot issue in the 1920s, when biodynamics and National Socialism alike first began to take shape. Whatever their ideological tensions and affinities, in short, the two groups entered the early years of the Third Reich with a mutual interest in food and farming that reflected this larger historical context.

They proposed, however, different solutions to Germany's problems. Whereas Nazi policy initiatives emphasized industrial methods as the foundation of German nutritional autarky, biodynamic farmers worked on a much smaller scale, seeking to make not nations but individual farms self-sufficient. Still, by claiming to have discovered the secret to making the soil "healthy and efficient" while simultaneously reducing "the costs of agricultural production and wholesome foods," biodynamic farmers held out a tantalizing prospect to the cost- and health-conscious regime.⁵²

As all of this suggests, ample space for accommodation between National Socialism and biodynamics had opened up by the mid-1930s. What had been true on the consumption side, however, also held true on the production side: advocates had to reframe biodynamics in ways that appealed to the regime. In a negative sense, this involved sanitizing biodynamics of its Anthroposophical and astrological elements. And in a more positive sense, this required showing how biodynamics could contribute to the regime's ideological and economic goals.

At the Reichsverband für biologisch-dynamische Wirtschaftsweise (Reich Association for Biodynamic Agriculture), all of this proceeded in tandem with the more practical work of persuading key officials in the party and state of the value that biodynamics held for the new order. Erhard Bartsch, the group's leader, took to calling himself a "peasant" (Bauer) rather than "food producer" (Landwirt) and had his biodynamic estate Marienhöhe legally reclassified as an entailed farm (Erbhof), all actions that betrayed his debt to the ideology of Blood and Soil.⁵³ On the more practical side, "Bauer Bartsch" hosted visits at his "Erbhof" by various officials, including Interior Minister Wilhelm Frick, who came with his wife in the summer of 1934 and went away so impressed that he later remade his home garden along biodynamic lines.⁵⁴ Otto von Lerchenfeld, another member of the Association for Biodynamic Agriculture, hosted the entire Committee on Public Health at his farm in the summer of 1935, a visit that turned Hanns Georg Müller into a strong advocate for the cause.⁵⁵ By the late 1930s, tours and conferences at Marienhöhe had become regular events, attended both by longtime biodynamic enthusiasts as well as an ever changing cast of officials targeted for conversion. Even those who did not visit Marienhöhe clearly knew about its existence. Most notably, Hermann Göring maintained a regular correspondence with Bartsch. In the spring of 1938, in fact, he invited Bartsch and Alwin Seifert, a prominent landscape architect and biodynamic advocate, to Munich to teach him about biodynamics, a meeting that left him intrigued about potential contributions the new farming method might make to the regime's economic goals.56

While the Association for Biodynamic Agriculture reached out in these ways to the Nazi regime, Hess pressured the state to sponsor scientific studies in order to determine whether or not the claims being made on behalf of biodynamics could be substantiated. Perhaps most importantly, the Ministry of Food and Agriculture sponsored a formal study by the *Landwirtschaftliche Betriebsprüfungsstelle* (Office for Agricultural Audits) that found the productivity of conventional farms far outpacing the productivity of biodynamic ones.⁵⁷ Similarly negative results emerged from other studies.⁵⁸ George Sessous, a professor at the University of Giessen, summed up the general consensus among agricultural experts in 1939 when he charged: "[w]hoever propagates the belief that we can make do in Germany today without mineral fertilizer commits a great evil against the German nation, since under the extraordinary demands being placed on our soil today, harvest yields would quickly drop so far that we would once again lose our hard-won nutritional freedom."⁵⁹

Such studies, however, were not the end of the matter, for biodynamicists quickly learned to fight science with science. Although earlier they had rested their case on practical experience, they now began to use scientific rhetoric and assemble numerical support, lavishing the most effort on the issue of crop yield. When the official study became available in 1938, biodynamicists criticized it loudly for being "unscientific." The audit had stacked the deck against biodynamic farms by using only the highest performing conventional farms for comparison, critics complained, noting that a fairly done study would have shown that biodynamic farms actually outperformed conventional ones over the long term and even produced crops of better quality.⁶⁰ A few months later, Benno von Heynitz and Carl Grund, both leading members of the Association for Biodynamic Agriculture, assembled data backing up these claims. Comparing grain yield from sixty biodynamic farms in Saxony with averages for conventional farms in the same agricultural zone, they showed that biodynamic farms outperformed conventional ones by 13.1% in 1938, and that over a four-year period harvest yields for biodynamically raised root crops had grown much more quickly than those from industrial farms. Chemical analysis, moreover, demonstrated that biodynamically grown sugar beets contained more sugar than conventionally grown ones. Similarly, cows on biodynamic farms produced more milk and birthed more calves than their counterparts on conventional ones.⁶¹ Carefully avoiding any mention of astrality, cosmic rhythms, and the reanimation of nature, all of these counter-studies made the case in numbers that even without synthetic inputs, biodynamic farms managed to maintain or even outperform conventional ones.

While making the case that biodynamics was thus an eminently rational way to farm, advocates also began to recast biodynamics in more starkly imperial and racial terms as early as 1933. Take, for instance, Max Schwarz's Ein Weg zum praktischen Siedeln (A Path to Practical Settlement). Schwarz aimed in this well-timed book to show how biodynamics could underpin the resettlement of German lands by ethnic Germans. Schwarz built on Blood and Soil ideology when he argued that biodynamics embodied "a deeper understanding for the homeland" that would enable small peasant farmers to make rural lands German once again. Nor did Schwarz neglect to point out the imperial potential of biodynamics on Germany's eastern frontiers. "If the planned colonies in the east are farmed by truly fit settlers according to biodynamic methods," he promised in his conclusion, "then the bitterly needed work of establishing and preserving Germandom, harshly opposed there, will begin."62 By downplaying biodynamics' astrological dimensions and recasting its vision of small peasant farming within the rhetoric of Blood and Soil, Schwarz's book was a good example of how partial overlap in the themes and concerns of biodynamics and Nazism could be exploited to bring the two movements closer together.

Franz Dreidax, Bartsch's assistant at Marienhöhe, continued these racial and imperial themes by adding the language of performance to the rhetoric of Blood and Soil. In a 1938 issue of Leib und Leben, for instance, he published a piece titled "Living Soil—Eternal Volk" which celebrated Austria's annexation as an occasion for reversing the decades-long problem of rural depopulation. Playing on the popular lament that Germans were a "people without space" (Volk obne Raum), Dreidax reminded readers that German lands were in danger of becoming a "space without people" (Raum ohne Volk). Bemoaning the ethnic aliens—Italians, Hungarians, and Poles especially—who were now farming German soil, Dreidax called on Germans to embrace "living farming," as he called biodynamics in the title of a 1939 book. Adeptly mixing the rhetoric of nature with the language of performance, Dreidax argued that although biodynamics was a "return to nature," it was also at the same time a move "forwards to a higher culture" in which "higher forms of cooperation between man and nature" would build "public power and public health."63

When war broke out in 1939, the gap between Nazism and biodynamics had closed considerably. Exploiting the invasion of Poland in September, Bartsch felt sufficiently confident to send reports with titles like "Securing German Food and Health" to various ministries and even wrote Göring with details on the Grund-Heynitz productivity study, noting that it contained "guidelines for the development of all German agriculture during the war."⁶⁴ In October, Bartsch observed proudly that several offices-including those attached to the Four Year Plan, the SS, the Deputy Führer, the Reich Health Office, and the Reich Food Estate-had all expressed interest in biodynamic methods.⁶⁵ Signs abounded of a general warming. The most important was a joint statement issued in January of 1940 by Hess and Darré in response to a second and even more impressive quantitative study of biodynamic crop yields performed by Carl Grund. "In the present war," Hess and Darré proclaimed, "the merits of static and biodynamic agriculture should be evaluated rationally and undogmatically so as to sustain and boost the productive capacity of the German soil."⁶⁶ Cleansed of its problematic elements, biodynamics was assimilated here to the regime's technocratic rhetoric of performance and productivity.

By the end of the 1930s, advocates had largely succeeded in accommodating the natural diet to the racial, economic, and imperial goals of National Socialism. They had done so by repackaging it as a tool for rendering the nation more fertile, fit, efficient, and productive. The relationship between the natural diet and fascism retained its tensions, of course, as criticism over the sectarian roots of these nature practices indicated. Once the war broke out, in fact, open advocacy became even more problematic as industrial foods and agriculture came to be seen as essential to winning the war. But if natural foods and farming never became major policy tools during the war, they nonetheless continued to engage the Nazi elite, some of whom began to incorporate these practices into their vision of Germany's postwar future. Fearing that industrial methods were damaging German soil, for instance, SS leader Heinrich Himmler took breaks from planning ethnic cleansing and genocide to sponsor biodynamic studies intended to ground a more sustainable future for Germans after the war.⁶⁷ Even Konrad Meyer, a chief maker of racial policy in the SS and one of Germany's most passionate advocates of industrial foods and agriculture, predicted in December of 1944 that once the war ended, "we will be nourishing ourselves according to the natural lifestyle."⁶⁸ Natural foods and farming may not have been central areas of Nazi practice, but functioned nonetheless as important sites for elaborating the biopolitical vision of German fascism.

The case of Nazi Germany, in turn, has two broader implications. First, it undercuts the temptation to read the "return to nature" as an instance of anti-modern romanticism and instead offers insights into how and why calls for making diet more natural have become such a persistent feature of many Western modernities.⁶⁹ It may be the ability of natural diets to cater to a fundamental ambivalence about modernity, manifested here in anxiety about industrial foods and agriculture, yet still remain within a modernist framework of performance and production that has allowed them to survive and even thrive right down to the present day. Second, the Nazi case draws attention to the political promiscuity of natural foods and farming in the twentieth century. Today, when these practices seem to belong so clearly to the progressive left, it strikes us as oddly perverse that at midcentury they were associated with the militaristic right. These links, however, are neither strange anomalies nor historical relics. The Oklahoma City bombing of 1995, for instance, was planned in part on an organic farm in Michigan.⁷⁰ Although not espousing a doctrine of violence, moreover, self-styled "crunchy conservatives" see eating animals raised without hormones and crops grown without synthetic fertilizers as perfectly compatible with owning guns, watching Fox News, and calling for the revitalization of American conservatism through a return to the "practical virtues of faith, family, community, and domestic traditions."71 The quest to eat more naturally, it turns out, has resonated both with the left and right, displaying a remarkable political promiscuity that scholars have only just begun to perceive and investigate.⁷² Taken together, all this suggests the need for further research, both within German history as well as within other national contexts.

NOTES

^{1.} I would like to thank the Radcliffe Institute, Flannery Burke, Michael Hau, Jennifer Miller, Mark Ruff, Warren Rosenblum, Jonathan Sperber, Conevery Valencius, Jonathan Wiesen, John Williams, Matt Wisnioski, Rafia Zafar, and anonymous readers for help in preparing this article.

^{2.} For food and war elsewhere, see Amy Bentley, *Eating for Victory: Food Rationing and the Politics of Domesticity* (Urbana, IL: University of Illinois Press, 1998), Carol Helstosky, *Garlic and Oil:*

Politics and Food in Italy (Oxford: Berg, 2004), and Frank Trentmann and Flemming Just, eds., Food and Conflict in Europe in the Age of the Two World Wars (New York: Palgrave-Macmillan, 2006).

3. Although known in Europe since the sixteenth century, potatoes had not yet become a field crop on the northern plains. Frederick's stroke of genius had been to discern their potential to stem the human costs of warfare. Armies at the time fed themselves by requisitioning local sources, mostly stored grains, and often left starving rural populations in their wake. Frederick realized that fields planted with potatoes could help rural areas survive such periods, since potatoes could be left in the ground until needed and armies were unlikely to take the time to harvest them. During the War of the Austrian Succession (1740–1748), Frederick had seed potatoes and planting instructions distributed throughout his kingdom. Potatoes then helped rural areas avoid famine during the Seven Years War (1756–1763), convincing government officials in Austria, Russia, and France that they should follow Frederick's lead. William H. McNeill, "How the Potato Changed the World's History," *Social Research* 66 (Spring 1999), 72 and 77–78. Hans-Jürgen Teuteberg and Günther Wiegelmann, eds, *Unsere tägliche Kost: Geschichte und regionale Prägung* (Münster: F. Coppenrath, 1986), 93–134.

4. Unsere tägliche Kost, 275. Hans-Jürgen Teuteberg and Günter Wiegelmann, Der Wandel der Nahrungsgewohnheiten unter dem Einfluß der Industrialisierung (Göttingen: Vandenhoeck & Ruprecht, 1972), 66–67.

5. In 1914, Germany imported 20% of its food; in 1934, the number remained unchanged. Gustavo Corni, *Hitler and the Peasants: Agrarian Policy of the Third Reich 1930–1939* (New York: Berg, 1990), 2. For nutritional plans during the 1930s–1940s, see also Dieter Petzina, *Autarkiepolitik im dritten Reich* (Stuttgart: Deutsche Verlags-Anstalt, 1968) and Gustavo Corni and Horst Gies, *Brot, Butter, Kanonen: Die Ernäbrungswirtschaft in Deutschland under der Diktatur Hitlers* (Berlin: Akademie Verlag, 1997). See also Avner Offer, *The First World War: An Agrarian Interpretation* (Oxford: Clarendon, 1989).

6. Hermann Göring, *The Political Testament of Hermann Göring: A Selection of Speeches and Articles* (London: John Long Limited, 1939), 204. There were two Four Year Plans. The first, known as the Battle for Production, began in 1934. It is referred to in the top row. The second, known simply as the Four Year Plan and led by Göring, began in 1936.

7. Petzina, *Autarkiepolitik*, 95. Nancy Reagin, "Marktordnung and Autarkic Housekeeping: Housewives and Private Consumption under the Four Year Plan 1936–1939," *German History* 19 (2001), 169–171.

8. My questions touch on a recent debate about Nazi environmentalism but also move beyond it. Rather than engaging with the anachronistic issue of "green-ness," I strive to remain historical by examining what nature meant to Nazi planners. I also expand the discussion of nature to include practices beyond environmental ones. For the debate over Nazi environmentalism, see Anna Bramwell, *Blood and Soil: Richard Walther Darré and Hitler's "Green Party"* (Abbotsbrook: The Kensal House, 1985) and *Ecology in the Twentieth Century: A History* (New Haven: Yale University Press, 1989); Piers H. G. Stephens, "Blood Not Soil: Anna Bramwell and the Myth of Hitler's Green Party," *Organization and Environment* 14, 2 (2001); Franz-Josef Brüggemeier, Mark Cioc, and Thomas Zeller, eds., *How Green Were the Nazis? Nature, Environment, and Nation in the Third Reich* (Athens: Ohio University Press, 2005); and Frank Uekoetter, *The Green and the Brown: A History of Conservation in Nazi Germany* (Cambridge: Cambridge University Press, 2006). For German nature movements, see John Alexander Williams, *Turning to Nature in Germany: Hiking, Nudism, and Conservation 1900–1940* (Palo Alto, CA: Stanford University Press, 2007).

9. Gisela Bock, Zwangssterilisierung im Nationalsozialismus. Studien zur Rassenpolitik und Frauenpolitik (Opladen: Westdeutscher Verlag, 1986). Christoph Sachße and Florian Tennstedt, Geschichte der Armenfürsorge in Deutschland: III. Der Wohlfahrtsstaat im Nationalsozialismus (Stuttgart: Kohlhammer, 1992). Detlev Peukert, "The Genesis of the 'Final Solution' from the Spirit of Science" in David Crew, ed., Nazism and German Society 1933–1945 (New York: Routledge, 1994). Robert Proctor, The Nazi War on Cancer (Princeton: Princeton University Press, 1999).

10. Erwin Liek, Krebsverbreitung, Krebsbekämpfung, Krebsverbütung (Munich: J. F. Lehmann, 1932), 177–179. For diet reform, see Sabine Merta, "Keep fit and slim!' Alternative Ways of Nutrition as Aspects of the German Health Movement, 1880–1930," in Alexander Fenton, ed., Order and Disorder: The Health Implications of Eating and Drinking in the Nineteenth and Twentieth Centuries (East Linton, Scotland: Tuckwell Press, 2000) and Wege und Irrwege zum modernen Schlankbeitskunst. Diätkost und Körperkultur als Suche nach neuen Lebenstilformen 1880–1930 (Wiesbaden: Franz Steiner Verlag, 2003); Jörg Melzer, Vollwerternährung: Diätetik, Naturbeilkunde, Nationalsozialismus, sozialer Anspruch (Stuttgart: Franz Steiner Verlag, 2003); and Proctor, War, chapter 5. On nineteenth-century vegetarianism, see Eva Barlösius, Naturgemäße Lebensführung: Zur Geschichte der Lebensreform um

die Jahrbundertwende (Frankfurt: Campus Verlag, 1997). On Lebensreform, see Wolfgang R. Krabbe, *Gesellschaftsveränderung durch Lebensreform* (Göttingen: Vandenhoeck und Ruprecht, 1974).

11. "Die Bedeutung der Volksernährung für Volksgesundheit und Volkswirtschaft," *Völkischer Beobachter* 33 (2 February 1934), Bundesarchiv [BA] NS 5 VI/4924.

12. For the Nazification of the Lebensreform movement generally, see Wolfgang R. Krabbe, "*Die Weltanschauung Der Deutschen Lebensreform-Bewegung Ist Der Nationalsozialismus*? *Zur Gleichschaltung Einer Alternativströmung Im Dritten Reich*," *Archiv für Kulturgeschichte* 71 (1989): 431–461. I am exploring the larger history of natural diets, including their sectarian roots, in a book titled *The Way to Paradise: Food and the Politics of Nature in Modern Germany*.

13. Max Trumpp, "Ernährungsreform," Odal: Monatsschrift für Blut und Boden II (1933–1934): 342–345.

14. Müller was leader of the *Deutsche Lebensreform-Bewegung* (German Life-Reform Movement), the Nazi umbrella organization created from the remains of older groups, and editor of *Leib und Leben*, a Nazified *Lebensreform* journal.

15. Melzer, Vollwerternährung, 162-173.

16. "Die Bedeutung der Volksernährung für Volksgesundheit und Volkswirtschaft," Völkischer Beobachter 33 (2 February 1934), BA NS 5 VI/4924.

17. Felix Kersten, The Kersten Memoirs 1940-1945 (London: Hutchinson, 1956), 43.

18. Franz Wirz, "Ernährung und Vierjahresplan," Ziel und Weg 19 (1937): 501. Franz Wirz, "Ernärhung und Vierjahresplan," Der Schulungsbrief 2 (1939), 65–65, 67, 70, BA NS 5 VI/4927.

19. Dr. Flössner, "Die deutsche Ernährung im Vierjahresplan," BA R 86/3527. Otto Flößner, "Allgemeine ernährungsphysiologische Fragen," *Aufklärung! Eine Vortragssammlung. Schriftenreihe der RAGVE*, vol. 4 (Leipzig: Johann Ambrosius Barth, 1936), 10, 13, BA NS 5 VI/4924.

20. O. Flössner, "Grundfragen der deutschen Ernährung," Deutsche Lebensmittel-Rundschau (15 January 1937), BA NS 5 VI/4925.

21. "Die Bedeutung der Volksernährung für Volksgesundheit und Volkswirtschaft," *Völkischer Beobachter* 33 (2 February 1934), BA NS 5 VI/4924.

22. Quoted in Walther Darré, "Vier Jahre nationalsozialistischer Ernährungspolitik," Odal: Monatsschrift für Blut und Boden VI (1937), 178.

23. Aufklärung! Eine Vortragssammlung. Schriftenreihe der RAGVE, vol. 4 (Leipzig: Johann Ambrosius Barth, 1936), 34–35, BA NS 5 VI/4924. These guidelines appeared at the end of most RAGVE publications and were also disseminated in the daily press.

24. Adolf Bickel, "Fleischnahrung, Pflanzen—oder gemischte Kost?," *Die Umschau: Illustrierte Wochenschrift über die Fortschritte in Wissenschaft und Technik* 40–41 (20 December 1936), BA NS 5 VI/4925.

25. Friedrich Römer, "Stoffwechselmechanik und Ernährung: Neueste Untersuchungen über naturgemäße Kost," *Berliner Tageblatt* 301 (22 June 1936), BA NS 5 VI/4924.

26. "Was sollen wir essen? Der Nationalsozialismus will keine Puritaner erziehen," *Berliner Tageblatt* 238 (20 May 1936), BA NS 5 VI/4924.

27. Reichsvollkornbrotausschuß, *Kampf ums Brot. Stimmen und Zeugnisse zur Vollkornbrotfrage* (Dresden & Planegg: Mullersche Verlagshandlung, 1939), 11. Melzer, *Vollwerternährung*, 183–198.

28. "Wie ernähren wir uns richtig?," Der Freiheitskampf 127 (9 May 1939), BA NS 5 VI/4927. Martin Vogel, "Forschungs-Institut der Deutschen Lebensreformbewegung," Leib und Leben (October 1938): 213–215. See also "Der Wald deckt den Tisch. Unterredung des VB mit dem Leiter der Reichsarbeitsgemeinschaft Ernährung aus dem Wald," Völkischer Beobachter (26 January 1939), BA NS 5 VI/4927. Martin Vogel was also director of the German Hygiene Museum in Dresden.

29. "Was sollen wir essen? Der Nationalsozialismus will keine Puritaner erziehen," *Berliner Tageblatt* 238 (20 May 1936), BA NS 5 VI/4924.

30. Youth were also targeted. See Hans Surén, "Ernähre dich zweckmäßig! Lebe richtig. Mahnworte an die deutsche Jugend," Nationalsozialistische Landpost 33 (20 August 1937), BA NS 5 VI/4926.

31. Göring, Political Testament, 197.

32. The phrase "wartime homemaker" comes from Bentley, *Eating for Victory*, 31. For German women, see Claudia Koonz, *Mothers in the Fatherland: Women, the Family, and Nazi Policies* (New York: St. Martin's Press, 1987); Reagin, "Marktordnung and Autarkic Housekeeping" and *Sweeping the German Nation: Domesticity and National Identity in Germany 1870–1945* (New York: Cambridge University Press, 2007); and Jill Stephenson, "Propaganda, Autarky, and the German Housewife," in David Welch, ed., *Nazi Propaganda: The Power and the Limitations* (London: Croom Helm, 1983), 117–142. For Italian

women, see Victoria de Grazia, *How Fascism Ruled Women: Italy 1922–1945* (Berkeley, CA: University of California Press, 1992).

33. Flössner, "Die deutsche Ernährung im Vierjahresplan," BA R 86/3527.

34. Margarethe Nothnagel, "Küchenchemie und Vierjahresplan," *Die Küche* 10 (October 1937), BA NS 5 VI/4926.

35. Margarethe Nothnagel, "Gesunde harmonische Ernährung," *N.S. Frauen Warte* 25 (1 June 1939), BA NS 5 VI/4927. Margarethe Nothnagel, *Harmonische Ernährung für wenig Geld durch gesunde Kost in LL-Schriftenreibe*, vol. 5 (Dresden: Müllersche Verlagshaus, 1939).

36. "Grüne Woche weist Wege zur Ernährungsreform," *Leib und Leben* (February 1939): 33–34. Margarethe Nothnagel, *Harmonische Ernährung für wenig Geld durch gesunde Kost mit der Ernährung Uhr* (Munich: Hanns Georg Müller, 1958), 45.

37. These recommendations were disseminated publicly. See, for instance, "Ernährungsrichtlinie für die Verbrauchslenkung im März 1939," *Zeitschrift für Spiritusindustrie* 9 (2 March 1939), BA NS 5 VI/4927. The presence of artificial honey and milk powder in this list also indicated the regime's multipronged approach to food security. While promoting the natural diet, it also sponsored research on industrial foods, including fat made from coal. See Birgit Pelzer-Reith and Reinhold Reith, "*Fett aus Kohle? Die Speisefettsynthese in Deutschland* 1933–1945," *Technikgeschichte: Beiträge zur Geschichte der Technik und Industrie* 69 (2002): 173–205.

38. Max Winckel, "Der Umbruch der deutschen Volksernährung und die neue Nahrungsbasis," Zeitschrift für Volksernährung 15 (5 September 1940), BA NS 5 VI/4928.

 "Pflanzenkost—Grundlage gesunder Volksernährung," Zeitungsdienst des Reichsnährstand 44 (31 October 1941), BA NS 5 VI/4929.

40. J. E. Farquharson, *The Plough and the Swastika: The NSDAP and Agriculture in Germany* 1928-45 (London: Sage, 1976), 171, 176. Corni, *Hitler*, 173-174.

41. Gesine Gerhard, "Breeding Pigs and People for the Third Reich: Richard Walther Darré's Agrarian Ideology" in *How Green Were the Nazis*², 129–146. Clifford R. Lovin, "Blut und Boden: The Ideological Basis of Nazi Agricultural Practice," *Journal of the History of Ideas* 28 (April–June 1967): 279–288.

42. Wendell Berry, What are People For? (San Francisco: North Point Press, 1990), 145.

43. Biodynamics was the only alternative farming method to which Nazi reformers gave serious attention, although it was not the only or even best option available. Ewald Könemann's method, for instance, had an explicitly political and *völkiscb* orientation that fit more smoothly with Nazi ideology, but Könemann's ideas were virtually ignored. See Ewald Könemann, *Aufgaben der Kolonisation in Deutschland* (Oberellen bei Eisenach: Verlag Bebauet die Erde, 1933) and *Biologische Düngewirtschaft. III. Teil. Die natürliche Ernährung der landwirtschaftlichen und gärtnerischen Kulturpflanzen* (Tutzing-Garatshausen: Landreform-Verlag, 1937).

44. Rudolf Steiner, Agriculture Course: The Birth of the Biodynamic Method. Eight Lectures Given at Koberwitz, Silesia, between 7 and 16 June 1924, trans. Georg Adams (Forest Row: Rudolf Steiner Press, 2004 (1958, 1924)), 8, 22–23, 63–64, 72, 119, 132–133, 141. Gunther Vogt, Entstehung und Entwicklung des ökologischen Landbaus im deutschsprachigen Raum (Bad Dürkheim: Stiftung Ökologie und Landbau, 2000), 98–105. Uwe Werner, Anthroposophen in der Zeit des Nationalsozialismus (1933–1945) (Munich: R. Oldenbourg Verlag, 1999), 81–84.

45. The Anthroposophical Society was banned with the consent of Hess and Frick, despite their support for biodynamics. Werner, *Anthroposohen*, 76, 83.

46. "Brötchen aus dem Jenseits," Der Angriff 65 (18 March 1935): 15.

47. Dreidax to Hörmann (8 January 1935), BA R 9349/1.

48. Enterwertung unserer Lebensmittel? (Dresden: Theodor Steinkopf, 1936), 21-22, BA NS 5 VI/4924.

50. O. Flössner, Ernährung und Düngung, (1938), BA R 86/3527.

51. Rudolf Heß, "Biologisch-Dynamische Wirtschaftsweise," Soziale Arbeit: Zentralorgan für Wohlfahrtspflege und Sozialpolitik 11, 15 (1934): 63. The order is reproduced in Werner, Anthroposophen, 90. For an Anthroposophist's view of this meeting, see Arfst Wagner, ed., Dreigliederung des sozialen Organismus: Dokumente und Briefe zur Geshichte der Anthroposophischen Bewegung und Gesellschaft in der Zeit des Nationalsozialismus, vol. 3 (Lohengrin-Verlag, 1992), 68. 52. Erhard Bartsch, Die biologisch-dynamische Wirtschaftsweise: Kerngedanken und Grundtatsachen. Überwindung der Materialismus in Landwirtschaft und Gartenbau (Dresden: Verlag Emil Weises Buchhandlung, 1934), 5–6, 23, 25. Originally Die Not der Landwirtschaft: ihre Ursachen und ihre Überwindung (Berlin: Demeter, 1927).

53. Corni, *Hitler*, 143–152. Farquharson, *Plougb*, 59, 109–110. All of these terms were covered by the *Erbhofgesetz* (Hereditary Farm Law, 1933), which was the ideological pillar of Nazi agricultural policy and affected 55% of all agricultural land. A farm covered by this law was an *Erbhof* (entailed farm) and its proprieter bore the title *Bauer* (peasant). Such farms could only be inherited, never sold, even in cases of bankruptcy. In order to be declared a *Bauer* and to receive such privileges, one had to be of German descent, which meant being able to prove that one had no Jewish or colored ancestors.

54. Werner, Anthroposophen, 87.

55. Hörmann to Bartsch (28 January 1936), BA R 9349/1.

56. Heynitz to Köckritz (10 March 1938), Bartsch to Frl. Grundtmann (19 September 1939), and Bartsch to Göring (30 May 1938), BA R 9349/2. Göring to Reichsverband für biologisch-dynamische Wirtschaftsweise (15 June 1937), BA R 9349/3.

57. Vogt, Entstehung und Entwicklung des ökologischen Landbaus im deutschsprachigen Raum, 122–124. Werner, Anthroposophen, 270.

58. J. Reinhold, "Kompostierung," Forschung für Volk und Nahrungsfreiheit (Berlin: Verlag J. Neumann, 1938), 118. C. Stapp and H. Müller, "Untersuchungen üben den Einfluß geringster Mengen bestimmter pflanzlicher Zusätze," Arbeiten aus der Biologischen Reichsanstalt für Land- und Forstwirtschaft 22 (1939): 483–519. Ludwig Schmitt and E. Hasper, "Wirkstoffe und biologisch-dynamische Wirtschaftsweise," Zeitschrift für Pflanzenernährung, Düngung, Bodenkunde 30 (1942): 65–98 and 34 (1943): 129–142.

59. G. Sessous to Sachverständigenbeirat für Volksgesundheit (28 January 1939), BA R 9349/1.

60. Erhard Bartsch, "Die volkswirtschaftlichen Leistungen der biologisch-dynamischen Wirtschaftsweise nach dem Stande von 1938" (15 April 1939), BA NS 15/305.

61. B. von Heynitz and C. Grund "Betriebsergebnisse 1938 aus 60 Landwirtschaftlichen Betrieben der Landesgruppe Sachsen" (July 1939), BA NS 15/305.

62. Max K. Schwarz, *Ein Weg zum praktischen Siedeln* (Düsseldorf: Pflugschar-Verlag, 1933), 3, 121–123.

63. F. Dreidax, *Das Bauen im Lebendigen. Eine Einführung in die biologisch-dynamische Wirtschaftsweise*, 3rd ed. (Munich: Müllersche Verlagshandlung, 1939), 5–8.

64. Bartsch to Seifert (4 November 1939), BA R 9349/3. Bartsch to Göring (16 September 1939) and Bartsch to Frl. Grundtmann (19 September 1939), BA R 9349/2.

65. Bartsch to Göring (3 October 1939), BA R 9349/2.

66. C. Grund, "Betriebsergebnisse des Jahres 1939" (December 1940), BA NS 15/305. Werner, Anthroposophen, 272. Pressemeldung (18 January 1940), BA N 1094 II/1a.

67. Enno Georg, *Die Wirtschaftlichen Unternehmungen der SS. Schriftenreihe der Vierteljahrshefte für Zeitgeschichte* 7 (Stuttgart: Deutsche Verlags-Anstalt, 1963). Wolfgang Jacobeit and Christoph Kopke, *Die Biologisch-dynamische Wirtschaftsweise im KZ. Die Güter der 'Deutschen Versuchsanstalt für Ernährung und Verpflegung' der SS vom 1939 bis 1945* (Berlin: trafo, 1999). Robert Sigel, "Heilkräuterkulturen im KZ: Die Plantage in Dachau," Dachauer Hefte 4, 4 (1988): 164–173. Joachim Wolschke-Bulmahn, "Biodynamisher Gartenbau, Landschaftsarchitektur und Nationalsozialismus," Das Garten Amt: Stadt und Grün 42 (1993): 590–595 and 638–642. Walter Wuttke-Groneberg, "Von Heidelberg nach Dachau," in Gerhard Baader and Ulrich Schultz, eds., *Medizin und Nationalsozialismus: Tabuisierte Vergangenbeit, Ungebrochene Tradition?* (Berlin: Verlagsgesellschaft Gesundheit, 1980).

68. "Wandlung und Ernährung" (16 December 1944), BA NS 5 VI/4930.

69. For an excellent review of the historiography on the "return to nature" and Nazism, see Williams, *Turning to Nature*, ch. 1, especially the discussion in footnotes 7 and 9.

70. Laura DeLind, "Rethinking Our Organic Roots," *Culture and Agriculture* 18 (1996): 79–82. Rene Sanchez and Serge F. Kovaleski, "Lives Apart From Their Community," *The Washington Post* (26 April 1995): A1.

71. Rod Dreher, Crunchy Cons: How Birkenstocked Burkeans, Gun-Loving Organic Gardeners, Evangelical Free-Range Farmers, Hip Homeschooling Mamas, Right-Wing Nature Lovers, and Their Diverse Tribe of Counter-Cultural Conservatives Plan to Save America (or At Least the Republican Party) (New York: Crown Forum, 2006), ix and 66–68.

72. Philip Conford, The Origins of the Organic Movement (Edinburgh: Floris Books, 2001).