Some of the most perplexing and rewarding discussions of Nazi Germany revolve around the contention that the dictatorship contributed to the larger process of modernization. Rather than standing as a brutal aberration in the liberal modernization of the West, Nazism is increasingly analyzed in terms of modernity, that is, in its tangled relationship with promoting and realizing an individualistic consumer society amid racial fervor and mass murder. The older argument that the Nazis unwillingly helped blur rigid divisions of class, gender, and religion has been supplemented by the view that Nazi social policy quite intentionally meant to build, in some respects, a modern social state.1

The National Socialist regime’s supposed concern for the environment also rests on the assumptions of a purposefully modern and modernizing state. According to this view, the Nazis enacted laws and instigated practices that would make them part of the vanguard of environmental protection. Present historiographical views of an environmentally aware National Socialist regime echo contemporaneous claims. The first nationwide nature protection law was passed in 1935: German propaganda claimed that even the erection of thirty-six hundred kilometers of four-lane concrete roads, the autobahn, would not harm nature. In the eyes of one German historian, this sensitivity to ecological problems signifies the modernity of Nazi Germany one more

1 I am indebted to Eve Duffy, Chris Fender, Karen Oslund, and Helmuth Trischler for comments on various versions of this essay.
On the other side of the spectrum, another scholar, struck by the obvious dichotomy of killing millions of people and protecting millions of trees, was led to conclude, “It is, of course, painful to acknowledge how ecologically conscientious the most barbaric regime in modern history actually was.”

Were the National Socialists really that conscientious when it came to protecting the environment? This question is not as simple as it seems. Still, interpretations of an environmentally friendly Nazi regime are often based on evidence left behind by the orchestrated propaganda efforts of the regime, not on archival sources. Therefore, historians overemphasize intentions and intellectual traditions while overlooking actual effects and consequences of Nazi environmental policy. To analyze the scope and meaning of these policies more fruitfully, it is helpful to examine the foundations as well as the specific implementations of ecologically oriented measures between 1933 and 1945.

The example at hand, the National Socialist autobahn, has assumed mythic proportions. According to contemporary claims, these roads blended into existing sceneries and highlighted the organic and harmonic relationship of National Socialist technology to nature. In this vein, the autobahn was supposed to be unprecedented by any other work of technology in twentieth-century Germany. The underlying questions of this essay are why these categories were used in this way and why the Nazis in their modernizing efforts combined a program for road building with a public display of concern for nature. Professional groups associated with the Nazi autobahn, namely engineers and landscape architects, contested the meaning and relevance of nature for both the design of the motorways and their role in the construction process. They brought forward different concepts of German landscape in acrimonious debates. Whereas the landscape architects stressed an emotional approach to understanding and reading landscapes and roadway design, the engineers promoted a landscape driving experience that was modern only at first glance. In their altercations over landscape and road design, both groups also were vying for professional self-assertion. I will show that the apparent modernity of the Nazi autobahn cannot be separated from its racial rationale.

The program to build an extensive road system was one of the first and most ambitious plans announced by the newly established Nazi regime. In fact, the autobahn and its German inauguration have left a
LANDSCAPE AS PATHWAY

collective memory in Germany. This memory perceives the autobahn as one of the great achievements of Nazi rule as opposed to the horrible mass murders committed by Germans during this dictatorship. Twisted as this logic may be, it is still deeply rooted in some German minds. The enduring success of this myth is due largely to the massive propaganda orchestrated by the regime. Nazi propaganda stressed the largely overblown effects of road building on the labor market; created a vision of a motorized Germany with affordable cars and an extensive system of motorways; and ignited a discourse on the beauty of the autobahn, which appeared as the embodiment of the long-awaited reconciliation between nature and technology. Since then, the myth that the autobahn alleviated unemployment has often been refuted. The second propaganda vision, Germany as a country of car owners, extended an older tradition reaching back to Weimar Germany. In terms of private ownership of cars, Germany was falling behind France and Britain, not to mention the United States, whose level of motorization would only be reached in the 1960s in West Germany. Hitler grasped the opportunity and promoted a vision of individual mobility for the new regime. The effort failed, and the envisioned “people’s car,” the Volkswagen, was never produced in appreciable numbers before 1945, except for military purposes.

Although there turned out to be few cars to make use of them, the autobahn was still built. German historiography has shown the inconsistency of Nazi transportation policy, pointing to the erection of a highway system of 3,625 kilometers by the end of 1941. What historians have called the polycratic structure of the National Socialist regime,

Figure 11.1 “Speed Along German Reichsautobahnen”: poster by Robert Zinner, c. 1936. In time for the 1936 Olympic Games, this poster aimed at presenting a peaceful, technologically advanced Germany to the world. Motorists from abroad were invited to share a sense of speed on the new Reichsautobahnen. Their individual mobility would include unprecedented, spectacular vistas and experiencing the highway as a modern monument. Before crossing the bridge, drivers could stop at a rest area and wonder at the “organic” roadway. There, the pylon bears a swastika underneath a watchful eagle controlling six cars. The German tourist board commissioned the artist Robert Zinner to stylize the pile-bridge over the river Saale between Bavaria and Thuringia and the surrounding scenery. It is remarkable to see how early the German word Autobahn was internationalized. Courtesy of Persuasive Images, Stanford, California.
SPEED ALONG

GERMAN REICHSAUTOBAHNEN
with its fragmentation of policies in different and rivalling political agencies, obviously helped to spur road building on this scale.

Very early Hitler established a bureaucratic agency responsible for the building of the autobahn, the office of the inspector general for German roads. The inspector general assumed responsibility for the Department of Transportation and the states. His new powers therefore only aggra­vated the lack of coordination between differing actors and interests, such as the still powerful national railway, the Deutsche Reichsbahn; the Department of Finance, which had a strong interest in the railway's revenues; and the interests of road-building companies. The engineer Fritz Todt, a former associate of these road-building companies and a first-generation Nazi, became inspector general in June 1933. Todt was the first nonlawyer to head a German Reich agency. He had modeled himself as a Nazi road expert by laying out a master plan for the German motorways as early as October 1932.

The high speed with which the autobahn was completed reflects a variety of interests and political constellations. It was partly due to the plans that had already been made during the Weimar Republic by lobbyists for road building. At the same time, the Nazi regime wanted to build the roads as quickly as possible to achieve the desired propaganda results. The dictatorship fashioned these roads into an icon of German power and economic strength and its resurgence after the calamities of the Depression. They were to become a national symbol (Figure 11.2). The propaganda of the autobahn-building phase was extensive and impossible to escape. Posters, movies, books, magazines, and even theater plays glorified the peaceful accomplishment of an economically vigorous and organizationally unbeatable Germany. Radio shows left no de­tail of the building process uncovered.

A closer look at this propaganda shows that the mass-media onslaught functioned on different levels: workers and their families were to be impressed by bombastic radio shows and cigarette collectibles. Educated middle-class audiences, however, who might still be skeptical about the uncouth new regime were to be won over by the autobahn's success at uniting nature and technology. This reconciliation of two hitherto separate worlds had been a prominent theme of German intellectual debates in the 1920s. In a somewhat simplified version of the argument, conservative German intellectuals feared that industrialization and a market economy would threaten and eventually annihilate
the German soul so deeply embodied in its sacred and sublime nature. However, this danger of a powerfully modernizing Germany that would destroy its inner foundation was avoidable. The Heimatschutz movement, after failing as a merely reactionary societal force, turned toward a more open stance in the face of capitalism. To solve this dilemma, Germany only had to resort to a non-Western and noncapitalist mode of production and thus a more benign attitude toward German nature. This attitude brought forward by conservative intellectuals has been labeled “reactionary modernism” by historians. The Nazis themselves were eager to call it Deutsche Technik, or German technology. Accordingly, a new journal by this very name praised the autobahn as the epitome of the new era.

Although there was no consistent Nazi ideology of technology among the varied strands of National Socialist thought, some common features stand out. Nazi propaganda radicalized an already existing dis-
course and undergirded it with racist lines of argument. According to Nazi publications, the main reason that capitalism had been rampant in its destruction of German nature was that inferior races such as the Jews had been allowed to play a role in the German economy. Race was the new keyword for this discourse, and the link between race and nature was essential. Only a healthy German nature could support the offspring for the rejuvenation of the Aryan race.

As the concept of *Deutsche Technik* suggests, technology was supposed to perform a key role in this process. Under “materialistic” conditions, technology had been considered an instrument of destruction. Prophets of the *Heimatschutz* movement cited countless examples of how bridges, factories, and hydroelectric plants brutally intruded on German nature. Against this background of a cold modernism, the vision of a united organic entity of nature and technology was brought forward. With the advent of the organic, architects and engineers were to play much more important roles than before. Technology, if only taken out of its materialistic context and placed into the German organic economy, could now help to enhance natural surroundings. Advocates of the *Heimatschutz* movement embraced the advent of the Nazi regime, since it promised to fulfill their organic rhetoric.

*Todt*, as the inspector general for roads, followed this line of argument when he declared in January 1934 that the autobahn should by no means be built like railways that had been erected decades earlier. “The railway has mostly been an alien element in the landscape. A motorway, however, is and will be a street, and streets are an integral part of the landscape. German landscape is full of character. Therefore, the motorways must assume a German character.” In vague terms, Todt asked for the new roads not to dominate nature but to blend into existing scenery. By the same token, the roads should give drivers spectacular views of German landscapes.

To ensure that this landscape-friendly style would be upheld, Todt’s office hired a cadre of landscape architects. In the summer of 1934, Todt appointed the Munich landscape architect Alwin Seifert his advisor for landscape matters. Seifert selected fifteen colleagues and became the leader of this group. The administration bestowed on them the illustrious title “landscape advocates,” a name that suggests a legal dispute over questions of landscape design. As Todt defined their task, the landscape advocates would act as consultants to the road-building engineers.
These engineers, however, were employees of the national railway, the *Reichsbahn*, and therefore committed to building streets with roughly the same parameters as were used for railways. Engineers had traditionally avoided curves wherever possible, situated roads on dams, and paid little or no attention to roadside plants.

Conflicts with the landscape architects who were dedicated to blending the roads into existing sceneries were inevitable. These confrontations can be understood only in the context of the hierarchical structure of Nazi road building. Because of a shortage of skilled road engineers, Todt’s agency had to resort to the railway’s engineers. The national railway was organized into regional headquarters with a central board in Berlin. The system of the landscape advocates was erected alongside this structure: every regional headquarters was to be counseled by one landscape architect, with Seifert in Munich serving as the liaison to Todt. On an everyday level, this structure turned out to be awkward. What made the system even more confusing to the architects was that their task was ill defined. Todt had stipulated that the regional offices would consult the landscape advocates before designing their plans. More often than not, however, the road engineers did not contact the landscape architects until after the plans had been made and the machines had rolled out to start building the roads. This negligence led to a conflict between Seifert and Todt that was fought out along ideological lines, and minute technical details of road building became the subject of serious disputes about the “Germaness” of roads.

The first example was the question of curves. Seifert believed that only a sweeping autobahn would be appropriate to the values he saw incorporated in German landscapes. Roads and bridges were to sweep elegantly over the valleys, since a straight line or straight road was, according to Seifert, unnatural. “The straight line is of cosmic origin,” he wrote. “It is not from this earth and is not found in nature. No living thing can move itself forward in a straight line.” In Seifert’s eyes, only nature itself could point to the single fitting design of the road. The landscape advocates had to understand nature’s laws in a way that could not be measured, only felt, and then help design the roads according to these feelings. What Seifert was effectively asking for was the elevation of his aesthetic and artistic appreciation of nature into a valid guideline for road building and the downplaying of a scientific understanding of nature. For the landscape advocates, nature was the sublime actor and
LANDSCAPE AS PATHWAY

humans could only subdue themselves to its will. What is more, these eternal laws would be legible to human minds only through the design proposals of the landscape advocates. In this vein of thought, technology had to be modeled according to nature’s laws. If there were no straight lines in nature, then straight motorways were simply inappropriate.

As a trained engineer, Todt disputed these arguments. Interestingly enough, he used nature as his founding principle as well. In response to Seifert, Todt wrote, “The car is not a rabbit or a deer that jumps around in sweeping lines, but it is a man-made work of technology in need of an appropriate roadway. Rather, the car resembles a dragonfly or any other jumping animal that moves shorter distances in straight lines and then changes its direction at different points.” The nature of a man-made technology would determine its suitability. Still, Todt resorted to animal analogies and confused his own argument about the human quality of roads with references to nature. At the interstices of landscape and technology, both engineers and landscape architects employed ideas of nature to support their respective intellectual and professional status in the building of the autobahn and in Nazi society. In these efforts, the compelling normative qualities of nature were the final argument. Since Todt had the power to define what constituted an appropriate roadway, alignment of the early autobahn consisted of straight stretches sewn together with short bends. The landscape architects ridiculed this as “zigzagging” (Figure 11.3).

Only after five years of road building and the steady admonishments of the landscape architects did the sweeping autobahn slowly come into being. Compared to the aesthetic qualities so vividly described by the landscape advocates, however, the road-building administration was much more impressed with the cost-saving effect of roads, which called for fewer bridges and less costly digging. Sweeping roads followed the inherent landscape patterns and were laid out around the mountains and in the valleys instead of over the mountains and their slopes. Furthermore, the road engineers began to prefer landscape-oriented roads because they deemed them safer than straight ones. After some untrained German drivers had suffered serious accidents, it was believed that more curves would suppress drivers’ boredom and thus keep them alert. One of Todt’s first reactions to the increasing number of accidents on the autobahn had been to hire a dowser with a divining rod, since
Todt suspected underground water lines to be responsible for causing casualties. Yet, the dowser did not provide an explanation. 23

When declaring the sweeping autobahn appropriate for German landscapes in 1940, Todt made it clear that these standards had to be applied solely to Germany. This exclusiveness was intricately linked to racist perceptions. In a speech given to his inner circle, Todt said he could not imagine that “we should make much of an effort” to preserve “remainders of natural beauty” in conquered Poland. Similar conditions would prevail in occupied Belgium, where a “relatively speedy course” should be sufficient. 24

The landscape advocates did not fulfill their aims when it came to the question of sweeping motorways. What is more, some regional units
of the road-building administration used their expertise only after the roads had already been mapped out. In an attempt to prove their usefulness, the landscape architects insisted on planting the appropriate trees and shrubs alongside the autobahn. One design feature of the conservative landscape architecture before 1933 had been a preference for indigenous plants for gardens and parks. Seifert declared that on the open landscape of the autobahn native plants were absolutely necessary. No “non-German” tree or shrub was allowed to be planted, and in his view, there existed only one fitting plant for every single spot of German nature.

This notion of a specific and appropriate community of soil and plants was taken from plant sociology, as the branch of ecology that examined natural vegetation units was called in Europe. Scientists ascertained that vegetation organized itself into discrete units over time. Therefore, biologists and ecologists claimed that communities of plants and soil existed on different hierarchical levels: they started on a primitive stage only to reach a final, static level. In Europe, plant sociologists were interested in the plant association. In the United States, this association was taken to an organistic extreme. The American biologist Frederick Clements stated that “the unit of vegetation, the climax formation, is an organic entity. As an organism, the formation arises, grows, matures, and dies . . . The climax formation is the adult organism, the fully developed community, of which all initial and medial stages are but stages of development.” Although the European and American concepts and approaches differed, ecologists on both sides of the Atlantic believed in the feature of a steady and final community of plants.

The German landscape architects associated with the autobahn did not stop searching for this adult organism. They radicalized Clements’s organic worldview by emphasizing the Germanness of the fully developed plant community. Seifert demanded that the landscape advocates must not plant “foreign shrubs” such as lilac, jasmine, park roses, douglas firs, and rhododendron, since all these plants were not indigenous to Germany. The landscape advocates also expected plant sociology to help them reestablish plant associations that had vanished from the face of German landscape as a result of the utilitarianism of the market economy. “It is about time to end a century of aberration in the relationship between nature and technology,” declared Seifert. This usually meant planting deciduous instead of coniferous trees alongside the autobahn.
Coniferous trees had been chosen to grow timber commercially, whereas the deciduous trees of the 1930s would be selected for their natural beauty and, more importantly, their appropriateness. The landscape advocates believed that through their efforts, the erection of a new transport system, the autobahn, could lead to the restoration of true German nature and the revival of original plant communities.

In their quest for the restoration of these older communities, the landscape architects were willing to resort to scientific methods. Quite in contrast to their aesthetic and artistic approach to road design and the question of curves, which bordered on self-centered willfulness, the men around Seifert embraced the scientifically generated results of plant ecologists, which led them to one appropriate vegetation association for every unit. The architects convinced Todt’s road-building administration to fund the fledgling discipline of plant sociology. Starting in 1935, ecologists analyzed the existing plant associations alongside the autobahn, produced maps, and pointed to the “natural” plant community that would exist without humans’ influence on earth. 30

These newly generated results led the landscape architects to plant many more trees and shrubs than the road-building administration was willing to pay for. At the end of 1936, in one of the most turbulent phases of motorway building, inspector general Todt was upset because the landscape advocates had placed too many plants between the lanes and alongside the autobahn. 31 Impressions of landscape, wrote Todt, should be generated by the “open spaces of landscape” and sequences of these spaces, not by planting trees and shrubs. Therefore, only 10 or 20 out of every 100 kilometers of roadways should be covered with plants. 32 After summoning all the landscape advocates to his Berlin office, Todt issued new guidelines for roadside vegetation. He defined its foremost task as enhancing the driving experience on the autobahn. The drivers should be kept in an alert state by looking at varying landscape designs. Therefore, the vegetation had to alternate between sparsely and densely planted areas. According to Todt, this was more important than blending the autobahn into the surrounding landscape. Thus, the roads would become, in Todt’s words, the “crown of the landscape” opened up by the autobahn. 33

Todt’s focus on the driving experience also led him to remain skeptical in the face of the radical revisionism of the landscape advocates. He met their call for the reintroduction of original German nature with
pragmatic caution. He warned that it could take some time before original plant communities were reestablished and added that, therefore, the planting of autochthonous trees should not be hastened.34

Besides general skepticism, there was an additional reason for Todt's hesitancy. The German Reich's expenses for the autobahn had skyrocketed. Instead of spending the estimated 600,000 reichsmark per kilometer of the four-lane autobahn, the regime paid 900,000 reichsmark per kilometer. This increase was due largely to the speed of the building process. Since the administration constantly needed to lower building costs, and roadside vegetation's scope was so obvious, with planting done at the very last stage of road building, the trees and shrubs alongside the autobahn more often than not fell prey to financial constraints. Ornamental trees would not facilitate the regime's preparation for war. The Nazi regime's total expenses for the landscape friendliness of the autobahn amounted to 800 reichsmark per kilometer in 1937, including the landscape advocates' fees and the expenses for trees and shrubs. Exactly 0.08 percent of the overall costs for the autobahn were used for the landscape advocates and their tasks.35

Although the concept of a specifically German technology, *Deutsche Technik*, was shared by both the inspector general's office and the landscape advocates, they differed when it came to the meaning of the landscape of the autobahn. The road-building administration was inclined to understand landscape as a backdrop for the drivers' experience (Figure 11.4). The various regions of Germany were to be interpreted in a distinctively different context of speed and space. A new appropriation of nature from a speeding car could be gained only when spectacular new vistas were designed for visual consumption. Compared to the landscape advocates' insistence on subordinating roadway design to nature's eternal laws, the engineers' approach appears to be more modern at first glance. Yet, the driving experience was to be rooted in and generated for a racial conception of landscape, a restricted version of natural beauty.

The landscape advocates' efforts were stymied by their structural weakness within the road-building hierarchy. The technological means for creating landscape-friendly roads were disputed as well. The landscape advocates' arguments for a sweeping autobahn were first brushed aside and then acknowledged only after the office of the inspector gen-
The architects insisted on the use of indigenous plants, but their radical rhetoric collided with the pragmatic resistance of the road-building administration. The overarching dilemma of economic constraints, which became clearer after the completion of each stretch of the autobahn, contributed to the fact that the landscape advocates became less important on the inspector general’s agenda.

The effects of this huge infrastructure effort of the Nazi regime were mixed. On the whole, the parameters for road design followed aesthetic principles loaded with contemporaneous Nazi ideology. Despite the holistic rhetoric, the concern for nature was exclusive rather than inclusive (Figure 11.5). Landscape features such as bogs and moors were considered to be mere hindrances, and the administration supported the de-
development of fast and efficient blasting techniques with no signs of landscape advocates protesting. Visual effects were of the foremost importance, and it is important to note that almost no thoughts were wasted on the effects of the autobahn on its closest neighbors, the animals. Still, Nazi propaganda created quite successful myths, including the one of the nature-friendly autobahn. What is more surprising is that some historians still take the nature friendliness of the Nazi regime for granted.

Finally, landscape history's now famous remark that nature contains an extraordinary amount of human history, though it is often unnoticed, leads to a remarkable parallel in the Nazi discourse on nature. The Nazi regime appreciated the human history in nature openly as part of their ideology, and, at least rhetorically, it tried to change the course of human history by changing nature and thereby strengthening

![Figure 11.5 The autobahn in the Palatinate in the 1930s. The harmony with nature evoked by autobahn rhetoric stands in obvious contrast to this picture. As the four-lane road cuts through the forests of the Palatinate, it exposes the geological formations of the Bunter sandstone and divides the woods sharply. Still, autobahn literature claimed that a ride on the forestry stretches of the roads could bring urbanites closer to nature and evoke feelings of belonging in sheltering and confined spaces. Courtesy of the Deutsches Museum, Munich.](image-url)
the German race. This hubris underscores the truly totalitarian nature of the regime.

In this respect, it is hard to see how the landscape policy of the autobahn can be considered a boon to the modernization of German society, unless one resorts to rather arbitrary definitions of modernization. The Nazis' transportation policy as a whole has already been labeled unmodern by one historian.39 The autobahn itself appeared as the embodiment of conflicting elements, some of which were modern and others oriented toward reestablishing a lost natural past.40 Some of the design features of the motorways were adapted from the parkways in the United States; however, their concept was transformed into an everyday transportation route. What is more, they had to serve the notion of Germanness, that is, a racially grounded national identity. The enlistment of a group of landscape advocates answered the call of the environmentalist movements of the day, yet the advocates' efforts were drastically mitigated in the building process of the autobahn as they contended with the engineers over professional status and expert knowledge. On a deeper level, the expertise generated by the counselors was used by the regime at will; instead of a modern, participatory democratic exchange of ideas on nature and its different usages, authoritarian, behind-the-scenes decisions gained true importance. Even the possibilities of visual consumption and a seemingly democratic, individualistic appropriation of speed were inextricably bound to nurturing a völkisch community of Aryan subjects on the autobahn. They were to be impressed by a strong state's capacity to unveil a nationwide transportation system and its ability to create scenic impressions. Only by acknowledging the intricacies and discrepancies of this amalgam can we understand the nature of the autobahn more deeply.41 Moreover, the landscape of the autobahn had an ironic legacy. After 1945, attempts to bring nature back into the discourse of modernization not only were morally discredited by the association with the Nazis, but were tainted by the smell of blood and soil.

NOTES


3. Simon Schama, *Landscape and Memory* (New York: Knopf, 1995), 119. Schama, of course, delivers a tour d’horizon of changing cultural meanings of landscapes over time and is not interested in the debate on modernization or in the National Socialist regime specifically.


York: Norton, 1996). A constructivist approach such as the one proposed by Cronon is not considered particularly revolutionary in Central Europe, as in the United States, since the idea of "wilderness" simply would not resonate in Europe. Nature conservationists in Germany, for example, celebrated and sought to protect *Kulturlandschaften*—culturally altered landscapes—as early as in the mid nineteenth century because these landscapes incorporated values of a romanticized rural life. *Naturlandschaften*, natural landscapes and the closest concept to wilderness, on the other hand, are sparse and culturally less significant. For an intellectual history of German landscape, see Gert Grönig and Ulfert Herlyn, eds., *Landschaftswahrnehmung und Landschaftserfahrung* (Münster, Germany: Lit, 1996).


15. *Deutsche Technik* was published from 1933 until 1943 by the only associa-
tion acknowledged by the National Socialist Party, the Kampfbund Deutscher Architekten und Ingenieure; see Jeffrey Herf, *Reactionary Modernism: Technology, Culture, and Politics in Weimar and the Third Reich* (Cambridge: Cambridge University Press, 1984). For a critique of Herf’s position, see Michael Allen, “The Puzzle of Nazi Modernism: Modern Technology and Ideological Consensus in an SS Factory at Auschwitz,” *Technology and Culture* 37 (1996): 527–571, esp. 545 ff. Allen is correct in remarking that romantic-modernist contradictions caused German engineers in the Nazi period “few sleepless nights” (546). By stressing the intricacies of the “actual world,” however, this approach risks downplaying intellectual traditions and climates that helped to shape debates and actions. For example, such an analysis would have less success in explaining the touting of the autobahn as a work of technology that would reconcile these contradictions. Also, see Karl-Heinz Ludwig, *Technik und Ingenieure im Dritten Reich* (Düsseldorf: Athenäum/Droste, 1979).


18. Statement of Todt, 18 January, 1934, R43II/503, Federal Archives, Koblenz, Germany (hereafter “FAK”). Translations, unless otherwise stated, are by author.

19. The Nazi Party banned one prospective coworker because of his former membership in the freemasons and kept one architect under close watch for alleged ties to the Communist Party before 1933. Virtually all of the landscape architects in the group were connected to the Heimatschutz movement and came out of the German Youth Movement. The majority were close to or members of the anthroposophic movement of Rudolf Steiner, which promoted organic farming and other issues of life reform.

20. Evidence on this point abounds in the papers of Alwin Seifert. See, for example, Schneider to Seifert, 30 June 1934, folder 146, Alwin Seifert Papers, Technical University of Munich (hereafter “ASP”); Meyer-Jungclausen to Seifert, 3 June 1934, folder 138, ASP; Siegloch to Seifert, 6 June 1938, folder 153, ASP.


22. Todt to Seifert, 26 June 1935, NS 26/1188, FAK.

23. Todt to Direktion Reichsautobahnen, 6 July 1936, NS 26/1188, FAK, Seifert to Todt, 13 November 1939, NS 26/1188, FAK.
24. "Rede des Reichsministers Dr. Todt auf der Architekten-Tagung des Generalinspektors für das deutsche Straßenwesen auf der Plassenburg," 9, 31 August 1940, NS 26/1188, FAK. For this speech, see the apologetic autobiography of Alwin Seifert, Ein Leben für die Landschaft (Düsseldorf/Cologne: Diederichs, 1962), 58.


29. Ibid., 22.


31. Seifert to Schwarz, 28 October 1936, 46.01/864, Federal Archives, Potsdam, Germany (hereafter "FAP").

32. "Entwurf eines Rundschreibens," 23 October 1936, 46.01/864, FAP.

33. "Vorläufige Richtlinien über die Bepflanzung der Kraftfahrbahnen auf Grund der Besprechung beim Generalinspektor vom 11.11.1936," folder n.6, ASP. The original reads, "zur Krone der von ihr erschlossenen Landschaft."

34. Todt, "Runderlaß," 27 January 1940, NS 26/1188, FAK.

35. Author's calculations according to "Reichsautobahnen Direktion, Kosten der technisch nicht notwendigen Pflanzungen und Begrünungen," 16 April 1937, R 65II/14, FAK. According to this source, 808,500 reichsmark were spent for the landscaping of the autobahn until the end of 1936. This amount is dwarfed not only by the overall costs of erecting the autobahn system, but also by the 3,147 million reichsmark extra that were spent to have one thousand kilometers ready for a celebratory opening in September 1936. "Zusammenstellung der Mehrkosten der Baubeschleunigung zur Eröffnung verschiedener Zivilstrecken am 27. September 1936," 8 March 1937, R 65II/15, FAK.

36. The blasting of moors was celebrated in the movie Der Kampf mit dem Moor (Fighting the Moor). A celebratory detonation was included in the administration's festivities to commemorate the three-thousandth kilometer of
the autobahn. “Generalinspektor, An die Gefolgschaftsmitglieder!” 14 December 1938, R 651/38, FAK.

37. This might be viewed as an expression of the modernity of the regime. By creating a myth of landscape friendliness, the regime combined older elements with a new amalgam. I do not mean to downplay the regime’s failure in implementing these policies, but rather to point to the intellectual history that it created. In this respect, a differentiation between modernization and modernity is helpful.


40. In this understanding, Jeffrey Herf’s notion of reactionary modernism has to be extended, as Allen (“The Puzzle of Nazi Modernism”) did, in order to make sense in light of the debate on modernization and the evidence used here. It is unreasonable to deny that modern elements can be found in the autobahn’s example. Therefore, the question does not evolve around the existence or nonexistence of these elements. Rather, it is important to analyze how they were connected to contradictory elements within the same process. For example, the Nazis set out to modernize the transportation system by implementing the autobahn even if it was built ahead of demand, but by the same degree, they chose design features that sought to unite inconsistent means and ends.

41. For vision and vistas, see Teresa Brennan and Martin Jay, eds., Vision in Context. Historical and Contemporary Perspectives on Sight (New York: Routledge, 1996) and Rudy Koshar, Germany’s Transient Paths. Preservation and National Memory in the Twentieth Century (Chapel Hill: University of North Carolina Press, 1998), 175. Klenke (“Autobahnbau”) ties the landscaping of the autobahn together with nature conservation, which was practically irrelevant in the building process. His notion of a “constructive cooperation” follows older conceptions (469). Rollins (“Whose Landscape”) goes as far as citing the autobahn as an example of “effective environmental reform” (513) and fails to place it in the larger context of Nazi Germany.
TECHNOLOGIES OF LANDSCAPE

FROM REAPING TO RECYCLING

Edited by David E. Nye

1999

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Volksgemeinschaft Engineers: The Nazi “Voyages of Technology”

John C. Guse

“The special train of German technology in the Sudentengau demonstrates that . . . the German engineer is also a great activist and propagandist.”

— Fritz Todt in Eger, November 24, 1938

Punctually at 4:05 on the morning of March 31, 1938, a new diesel locomotive left the Holzkirchen Bahnhof in Munich, pulling the first traveling “achievement exhibition” (Leistungsshau) of German technology.¹ It had been nineteen days since the Anschluss, and on April 10 all Greater Germany would vote its approval of incorporating Austria into the Reich. Despite their use of terror to influence the Austrian vote and virtual assurance of electoral success, the National Socialists embarked on an extensive propaganda effort in Austria to ensure a wide margin of victory there. Hitler campaigned throughout Austria during the last ten days before the vote, making six major speeches, and other top Nazi officials made electioneering tours.² Famous for constructing the Autobahn network, Fritz Todt, Inspector General for German Highways, and the engineers of the NSDAP Central Office for Technology, organized a traveling propaganda exhibit to display German technology under the motto

¹The locomotive had completed its maiden voyage in the Black Forest only three days earlier. Auch Österreichs Schlotte sollen wieder rauchen. Österreichfahrt der deutschen Technik,” Salzburger Zeitung, April 5, 1938, Bundesarchiv (Berlin, formerly Koblenz), NS 14/5, folio 1. Hereafter, unless otherwise indicated, all primary source files, particularly NS 14 (Hauptamt für Technik/Nationalsozialistischer Bund Deutscher Technik, 1934–45), are found in the Bundesarchiv-Lichterfelde. On the significance of Leistung (“achievement” or “performance”) for Nazi economics, see S. Jonathan Wiesen, Creating the Nazi Marketplace: Commerce and Consumption in the Third Reich (Cambridge: Cambridge University Press, 2011), 28–34.

“Austria’s chimneys will smoke again.” It was the first of three “Voyages of Technology” undertaken by Todt and his Nazi engineers.

Although only minor episodes in the history of the Third Reich, these voyages of technology are significant for a number of reasons. In the decades since the publication of Karl-Heinz Ludwig’s classic study of Nazi engineers, much has been written on the “coordination” of German engineers, the role of engineers in Nazi projects ranging from Autobahn construction to wartime “wonder weapons,” and the place of technology in Nazi ideology. It is now evident that Nazi ideology embraced modern technology and that engineers such as Gottfried Feder and Fritz Todt sought to use party institutions to control the German professional engineering societies while seeking enhanced status and political power for engineers in the Third Reich. It has also become apparent that this Deutsche Technik ideology varied considerably in nature and influence under the diverse leadership of Feder, Todt, and Albert Speer. Historian Thomas Klepsch has described Nazi ideology as having a racist, anti-Semitic, anti-Bolshevik “gravitational core,” with other peripheral elements as “satellites” whose importance was pragmatically determined by historical circumstances. Deutsche Technik was just such a peripheral ideological element, whose orbit drifted near and

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then away from the active core of Nazi beliefs. These voyages of technology took place when Deutsche Technik was at its most influential, coming as they did after the so-called “Reordering of Technology” in 1937—which brought the German engineering professions under tighter party control—and prior to the restrictions placed by the war, and particularly Albert Speer, on spreading Todt’s ideology.

They provide a specific example of “reactionary modernism” at its zenith, clarifying the role that Nazi engineers assigned for technology in Nazi society. These little-known exhibitions are one of the best examples we have of Nazi engineers serving as propagandists, carrying their message directly to the public. In short, they demonstrate Deutsche Technik in practice.

The voyages of technology should be seen in the context of recent historical research that explores how Nazi propaganda appealed to the German population and transformed values during the Third Reich. Claudia Koonz has shown how Nazi propaganda helped to form an “ethical” consensus among Germans willing to eliminate those perceived as threatening the well-being of the nation. Similarly, Jeffrey Herf has demonstrated how wartime Nazi propaganda successfully branded the Jews as enemies who desired the destruction of Germany and who were responsible for World War II. David Welch has argued that Nazi “national community” (Volksgemeinschaft) propaganda was more effective than often assumed in providing social integration and stability. Peter Fritzsche has described how ideology and propaganda helped “racially groom” Germans to see the world in racial terms. Certainly Volksgemeinschaft propaganda reinforced the exclusion of all those considered


8The party engineering association, the NSBDT, incorporated the German engineering associations, most notably the Society of German Engineers (VDI), during the “reordering of German technology” undertaken by Todt in April 1937. Deutsche Technik (April 1937): 203; and “Zur Neuordnung der deutschen Technik,” Deutsche Technik (May 1937): 209–214. For analysis of the process, see Ludwig, Technik und Ingenieure, 170–175; Jarausch, The Unfree Professions, 165–166; and Guse, “Plasenburg,” 166–172.


“community aliens” (*Gemeinschaftsfremde*). Key to these studies is an appreciation that Nazi propaganda had a very real impact on the German population and that the concept of an egalitarian Volksgemeinschaft, united by race and Nazi values, was an attractive ideal for many Germans. It was an ideal that, as Jill Stephenson and Norbert Frei have written, was left unfulfilled and lost its attraction amid the sacrifices of the war. These voyages of technology illustrate how Nazi engineers used propaganda in the prewar period to convert their “Volk comrades” to a positive acceptance of modern technology. Nevertheless, when Todt and his engineers sought greater influence on German foreign policy, the canceling of a further voyage to eastern Europe suggests that the regime and its plans for conquest placed limits on the use of technology as propaganda.

Growing out of the “history of the everyday” methodology of the 1980s, historians now emphasize that a key component within Nazi propaganda was its appeal to nascent consumerism in Germany—even though, due to the regime’s fiscal restraints and investment in rearmament, it was “Volksgemeinschaft on a budget.” Wolfgang König has detailed how, despite often limited diffusion, “Volksproducts” such as the radio (*Volksempfänger*), refrigerator (*Volkskühlschrank*), and Volkswagen combined Nazi propaganda and “consumer society” policies. While denying its “ecological” nature, Thomas Zeller has placed the Nazi Autobahn in the context of a “racially defined emerging consumer society,” a concept reinforced by Shelly Baranowski’s description of how the “Strength through Joy” organization substituted nonmaterial rewards and experiences for true mass consumption. As Jonathan Wiesen puts it in his recent analysis of commerce in the Third Reich, economic difficulties “did not dispel popular visions of a thriving consumer marketplace.” According to Paul Betts, such studies show that the regime’s inability to make good on its

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promises in no way detracted from the symbolic importance of these socioeco-
nomic projects. He argues that “dreams of deferred gratification and postwar afflu-
ence” only became more intense with Nazi limitations on consumer spending
and wartime sacrifices.20 This process is best summarized by Peter Fritzsche, who notes that “it was not so much durables as the promise of prosperity that
was consumed.”21 The voyages of technology are an example of how Nazi pro-
paganda not only addressed economic anxiety but also reinforced consumerist
aspirations.

Press releases and unpublished communications aboard the trains offer a unique
glimpse into the mind-set of Nazi engineers, particularly their overt anti-
Semitism, which stands in stark contrast to the traditional picture of the “apoliti-
cal” engineer and lends credence to the argument that it was anti-Semitism that
linked Nazi technical thought to the other core elements of Nazi ideology.22
Anti-Semitism was overtly expressed in the propaganda disseminated on these
traveling exhibitions and marks Fritz Todt, the Nazi engineers, and their ideology
as more far more openly anti-Semitic than the picture painted many years ago by
Thomas Parke Hughes, who labeled Todt an “acquiescing auditor” who drew
back from “explicit anti-Semitism.”23 Deutsche Technik was undoubtedly
anti-Semitic in character.

Last, the Nazi technical ideology, as articulated on these voyages, is directly rel-
levant to the endless, vast debate on Nazi “modernization.”24 Whether one is
convinced that the Nazis were conscious modernizers or is skeptical of the
whole enterprise of applying modernization theory to National Socialism, one
can observe here the specific manner in which Nazi engineers presented
modern technology to the public. With the bombast typical of Nazi propaganda
in general, they transformed rhetoric aimed at politicizing German engineers
themselves—in courses given at the “Reich School for Technology” on the
Plassenburg and articles in the party “techno-political” journal Deutsche
Technik—to appeals for public support, presenting modern technology as essential

21Fritzsche, Life and Death, 59.
22Zeller, Driving Germany, 68–70.
23Thomas Parke Hughes, “Technology,” in The Holocaust: Ideology, Bureaucracy, and Genocide. The
San Jose Papers, ed. Henry Friedlander and Sybil Milton (Milwood, NY: Kraus International
24A full overview of the historiography and an extensive bibliography are contained in Ricardo
Bavaj, ed., Die Ambivalenz der Moderne im Nationalsozialismus. Eine Bilanz der Forschung (Munich: R.
Oldenbourg, 2003). A brief synthesis is in Michael Thad Allen, “Modernity, the Holocaust, and
Machines without History,” in Technologies of Power: Essays in Honor of Thomas Park Hughes, ed.
Michael Thad Allen and Gabrielle Hecht (Cambridge, MA: MIT Press, 2001), 181–184. See also
the special edition of Central European History 30 (1997); and the review by Mark Roseman,
“National Socialism and Modernization” in Fascist Italy and Nazi Germany: Comparisons and
to the economic and social well-being of the national community.\textsuperscript{25} When it came to the Volksgemeinschaft, these Nazi engineers were both committed modernizers and fervent exclusionists.\textsuperscript{26}

This essay focuses on the propaganda used by Nazi engineers on the voyages of technology and makes no attempt to address the contradictions that may have existed between technological promise and the reality of its implementation in Austria or the Sudetenland. Numerous historians have pointed to examples of Nazi technical rhetoric not matching results, and there is no question that the Third Reich saw its share of technological failures, ranging from mass motorization—not a single Volkswagen was ever produced for private use—to its incapacity effectively to pursue an atomic bomb.\textsuperscript{27} Similarly, we know that the Autobahnen were far from the economic panacea we will see portrayed in these voyages of technology.\textsuperscript{28} The historical literature proves that Nazi technology often failed to achieve its stated aims, sometimes due to overriding economic and political priorities, sometimes as a result of the nefarious influence of a fundamentally irrational ideology. As Karl-Heinz Ludwig and Jeffrey Herf argued some time ago, the irrational strain in Nazi ideology certainly contributed to the inefficiency of the Nazi war effort.\textsuperscript{29}

We should be cautious, however, not to overemphasize the discrepancy between Nazi rhetoric and Nazi technical accomplishment, for the symbolic and psychological impact of Nazi ideology was often crucial. Autobahn construction, for example, while having little real impact on employment, nevertheless provided a lasting illusion of economic recovery and technological progress.\textsuperscript{30} Recent scholarship has shown the absolute centrality of Nazi ideology to the evolution of life in Nazi Germany. Ranging from its effect on workers to its formative influence among the Order Police, the SS security apparatus, and SS engineers, there is no longer any question that Nazi ideology altered the

\textsuperscript{25}Kees Gispen combines these themes when he argues that Nazi inventor policy aimed for “a more modern, technologically dynamic, equitable, and efficient Volksgemeinschaft . . . of consumers.” Kees Gispen, Poems in Steel: National Socialism and the Politics of Inventing from Weimar to Bonn (Oxford: Oxford University Press, 2002), 8.

\textsuperscript{26}Ian Kershaw’s Jewish colleague could not imagine having suffered the wrath of the Nazis for the goal of modernizing Germany; the deportment of these engineers illustrates the paradox. Ian Kershaw, Hitler, the Germans, and the Final Solution (New Haven, CT: Yale University Press, 2008), 16.

\textsuperscript{27}Tooze, Wages, 156; Mark Walker, Nazi Science: Myth, Truth, and the German Atomic Bomb (Cambridge, MA: Perseus, 1995), 196–197.


\textsuperscript{29}Herf, Reactionary Modernism, 202, 215, 222–224; Ludwig, Technik und Ingenieure, 254–255.

perceptions and behavior of many who lived under its sway. Ideology was among the caustic mix of factors that led even basically nonideological “Pennemunders” to acquiesce in murderous criminality. Indeed, Nazi ideology “worked its way into the most mundane corners of everyday life.” These studies make clear that historians should systematically consider the ideological and symbolic implications of Nazi projects, as well as their actual implementation, when judging their influence. It is best to follow Adam Tooze’s sage description of Nazism as an “ideological-pragmatic synthesis” in which the regime combined “ideological motivation with the pragmatic necessities of power.” The voyages of technology display both aspects of this synthesis at work.

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The Austrian Voyage of German Technology was officially a combined project of the Central Office for Technology of the Nazi Party, the NS League of German Technology (NS-Bund Deutscher Technik) which grouped together the principal German engineering associations, and the Office for Technical Science in the German Labor Front; the latter, however, took part little in its execution. Fritz Todt participated from April 3–5, making speeches in Wels, Styr, Linz, and Salzburg and again on April 8 in Graz. It was primarily the engineers of the Central Office for Technology, headed by Todt’s deputy, Karl-Otto Saur, who made up the main traveling group, working, eating, and sleeping in the cramped quarters of the train for most of the ten-day journey—the source of good-natured friction among the participants.

Karl-Otto Saur, whom Albert Speer later self-servingly referred to as “not an agreeable fellow” (kein angenehmer Typ), and whom Adolf Hitler named in his

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33 Wiesen, Creating the Nazi Marketplace, 21.


35 Link, “Merkblatt für die Österreichfahrt der deutschen Technik anlässlich der Volksabstimmung in Österreich,” NS 14/5, folio 1.

36 “Auch Österreichs Schlote sollten wieder rauchen! Österreich-Fahrt der deutschen Technik,” draft press release, NS 14/5, folio 1.

37 Only on the sixth night in Salzburg and the last two nights in Vienna did the group stay in hotels, leading participants on the train to complain of the snoring and their inability to wash clothing. Brume, “Horchideen im Zug der Technik,” Österreichfahrt der deutschen Technik. Eigene Zugzeitung, no. 4 (April 8, 1938): 7, NS 14/5, folio 1.
testament as Speer’s successor, was the epitome of the ambitious Nazi engineer. Brusque of manner, caustic, and contemptuous of subordinates, Saur was nevertheless seen by other Nazis as an “organizer par excellence.” He is infamous for later heading the “Fighter Staff” (Jägerstab) in Speer’s Ministry for Armaments and War Production—an undertaking so intimately linked to Nazi genocide that his labor-hungry office maintained telephone contact with the ramp at Auschwitz where Hungarian Jews were selected for either work or execution. Adam Tooze has described him as “pugnacious,” an “intemperate bully,” and a “fanatical slave-driver.” Saur had become Todt’s right-hand man by directing the “bringing into line” (Ausrichtung) of German engineering associations during the “reordering of German technology” in 1937. Like Albert Speer, Saur had joined the NSDAP only in 1941. Contrary to Todt or Speer, however, Saur projected the image of a classic Nazi “old fighter”: corpulent, abrasive, and openly anti-Semitic—hardly the common perception of the detached, “apolitical” engineer.

In addition to Saur, many of the leading engineers of the NSDAP Central Office for Technology participated in the Austrian voyage. Among them, Dr. Otto Streck, head of Technical-Political Education, was co-responsible for the exhibits; Dr. Flemming of the Press Office handled the press service; Link, in charge of the Office for Organization, was responsible for the travel; and Schneider, Central Office Treasurer, shared responsibility for financing, provisioning, and accommodations. Much of the propaganda during the voyage was penned by Josef Greiner. In all, twenty-six individuals, including two secretaries, made up the entourage. See Figure 1.

The traveling exhibition consisted of two trains: a diesel locomotive and cars and a second train pulled by a steam locomotive. As the trains were not purpose built, exhibition spaces were developed on the railway cars: in the diesel locomotive itself; in first-, second-, and third-class coaches; and in a sleeping car. Displays in the German Railway cars showed how new materials

39 The phrase is Georg Seebauer’s (prior to Saur, Todt’s primary deputy), quoted in Ludwig, Technik und Ingenieure, 411.
41 Tooze, Wages, 434, 560. As Adam Tooze says, it is astounding that Saur escaped prosecution at Nuremberg.
42 Ludwig, Technik und Ingenieure, 171 ff. On Saur’s wartime activities, see Allen, Business, 233–239; and Tooze, Wages, 628–634.
43 Ludwig, Technik und Ingenieure, 65.
44 Evidence suggests, but is insufficient to conclude, that this is the same engineer Josef Greiner who published the now-discredited Das Ende der Hitler-Mythos (Zurich, Leipzig, and Vienna: Amalthea-Verlag, 1947).
45 Link, “Merkblatt für die Österreichfahrt der deutschen Technik anlässlich der Volksabstimmung in Österreich,” NS 14/5, folio 1.
developed with the goal of economic autarky could provide both comfort and efficiency. Sheets and linen, curtains, upholstery, blankets, luggage racks, and carpeting were made of synthetic materials, ranging from cellulose to rayon to synthetic leather. The Linz newspaper *Arbeitersturm* delighted in the fact that “even the third-class wagon is upholstered”—upholstery whose source was not Australian sheep farms or American cotton plantations, but German forests.46 Window and door frames were made of lightweight metal alloy, developed to replace the *Reichsbahn*’s reliance on copper and brass.47 Piping of sundry sorts was of synthetic rubber. Among other items exhibited were “silent” gears of synthetic resin and lightweight metal for Zeppelin construction.48 In the towns where the train stopped for presentations, the engineers set up further displays with photographs, drawings, and models covering the whole range of Nazi activity, both technical and sociopolitical. Autobahn construction, models of the House of German Art in Munich and the Party structures in Nuremberg, “Winter Help,” “Strength through Joy,” “Labor Service,” and the “new Wehrmacht” were all featured.49 The film “Adolf Hitler’s Highways through Germany” was shown at various indoor and outdoor settings a total of sixty-six times to an estimated 75,000 viewers.50

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46“Deutsche Werkstoffe im Sonderzug ‘Deutsche Technik,’” *Grazer Volksblatt*, April 9, 1938; and “Alle Schlote sollen wieder rauchen. Deutschland baut mit deutschen Werkstoffen,” *Arbeitersturm*, Linz, April 5, 1938, both in NS 14/5, folio 1.

47“Siegeszug der deutschen Technik,” *Steyner Zeitung*, April 7, 1938, NS 14/5, folio 1.


49Report from Dornbirn, April 1, 1938, NS 14/5, folio 1.

The itinerary for the Austrian voyage led from Vorarlberg into the Tyrol, to Upper Austria and the Salzburg region, from there across to Lower Austria, south to Styria, and then returned north, ending in Vienna. In all, the train traveled approximately 2,200 kilometers, stopping for exhibitions in nineteen locations. If one accepts the Nazi’s statistics, 132,000 people visited this “rolling achievement exhibition.” Among the propaganda materials handed out were 330,000 copies of the techno-political journal Rundschau Deutscher Technik; 262,000 photo-folios on the Labor Front’s “Beauty of Work” program; 140,000 pamphlets about a planned “Beauty of Work” program for Austria; 65,000 printed likenesses of Hitler; and 55,000 swastika flags. See Figure 2.

As the Austrian voyage wound its way through Vorarlberg and Tyrol, exhibits and speeches emphasized how German technology could reduce Austrian unemployment. Factories would be reopened and new jobs created, particularly by the extension of the Autobahnen into Austria. The Nazi engineers blamed the Schuschnigg government and, in Jenbach, Jewish factory owners, for closed factories and economic hardship: “Better times began for Jenbach as soon as Jewish domination ended.” After joining the train on the third day in Wels, Fritz Todt continued on this theme. He argued that 15,000 Austrian workers could have already been employed on highway construction, had not the Austrian government rejected as “political highways” his earlier offer to extend the Autobahnen into Austria. The next day in Steyr, Todt promised to end unemployment “in a few months,” principally through highway construction. That night, in Linz, site of the Hermann-Goering-Works, Todt joked about what was to become, in effect, a point of dispute between Goering and himself: the distribution of workers between the Hermann-Goering-Works and Autobahn construction.

54 Unsigned draft, “Kundgebung der deutschen Technik,” part of a draft version of Österreichfahrt der deutschen Technik. Eigene Zugzeitung, no. 2 (April 4, 1938): 3–4, NS 14/5, folio 1. In same draft, Todt is quoted as saying he had “known” since 1934 that Autobahnen would be built in Austria, suggesting more foreknowledge of territorial ambitions than he usually cared to admit. The draft is edited, however: the word “known” (gewusst) is struck out and replaced by “in the belief” (in der Überzeugung).
This emphasis on economic improvement through technology became even more pronounced as the train descended into the industrial region of Lower Austria. In Neunkirchen, engineers estimated that half of the men were out of work. Typical of the train’s propaganda, one engineer reported that “yearlong suffering was etched into the face of nearly every visitor.”

Not only were press releases filled with pathos about economic conditions, but they also dwelt on the “suffering” of Nazi sympathizers, such as the mother whose son, having fled persecution by the Austrian authorities, died in Upper Bavaria.

The train personnel made continual reference to the supposed discrimination to which Austrian Nazis and their supporters had been subjected prior to the Anschluss. Enthusiastic response to the exhibits gave the false impression that depressed industrial communities had, overnight, changed their political color from red to brown. In Steyr, a community that the engineers regarded as “mostly communist” only a few weeks earlier, Todt warned that every missing vote would be a blemish on the residents.

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made, even in the train’s internal newsletter, to the brutal measures being taken throughout Austria to eliminate opposition to the Nazis.60

Most of the technology on display was presented as strengthening the nation as a whole as opposed to benefiting individual households. Nevertheless, typical of Volksgemeinschaft propaganda, appeal was also made to potential consumer-ism—even if the public had little money to spend on technical innovations. The Nazi engineers commented repeatedly on what may have been true “astonishment” shown by visitors when seeing such new materials as fiberglass, Plexiglas, and synthetic rubber.61 Greiner wrote that visitors in Linz could not believe that these “wonderful technical creations would now be at their disposal” or that German technology would improve their well-being to such an exceptional extent, a sentiment echoed in the local newspaper in Graz.62 In Neunkirchen, hard hit by unemployment, “the proud achievements of German technology must have appeared to most people as an unbelievable luxury, in which they themselves hardly hoped to share.”63 A stated purpose of the exhibits was to show the Volk that technology “makes work easier, multiplies efficiency, and brings the fulfillment of wishes and dreams closer.”64 The local newspaper in Steyr echoed the train’s propaganda: engineers would help to solve social problems, for “the machine has become a friend of the Germans.” No longer leaving men without bread, technology was now a “welcome and powerful helper” that would raise living standards higher and higher.65 Thus the exhibits not only stressed technical prowess and its implications for employment, but also contained latent promise of future consumption and an improved life for Volk comrades.

In addition to smugness about German technological superiority, press releases from the train, particularly those of Josef Greiner, reflected the technical ideology espoused by Fritz Todt, namely a concern for “humanizing” technology and broadening contacts between technicians and laymen. After becoming the

62J. Greiner, draft press release, “Österreichfahrt der deutschen Technik. Ein beispielloser Erfolg,” April 6, 1938; and “Sonderzug Deutsche Technik,” Grazer Volksblatt, April 8, 1938, both in NS 14/5, folio 1.
65“Siegeszug der deutschen Technik,” Steyrer Zeitung, April 7, 1938, NS 14/5, folio 1.
Third Reich’s “chief engineer” following the demise of Gottfried Feder in 1934, Todt proposed a technical ideology that emphasized both politicizing German engineers and, at the same time, awakening the German public to the value of modern technology for the national community. Technology would help to attain Volk harmony. The common interest between technicians and the general public would become evident by showing how technology served the entire community. A press release from the train entitled “Technology Found the People” put it this way:

This is the great revelation of this voyage: the direct path of technology to the people does not pass through technical schools, museums, or journals, but rather from heart to heart. Only when the mutual interests between the technician and the simplest worker and simplest housewife, the old man and the child, are made apparent does that which journals publish and museums display attain any true validity. Only when the people come to know the technician and what he wants through direct dialog, only when they themselves can hold the technically created object in their hands, will the spark of love and enthusiasm for technology be ignited.

To transform the status of technology, however, it was considered necessary first to transform the technician himself, creating a new political consciousness among engineers. The engineer was to become a more complete member of the Volk community by being drawn out of his narrow realm of specialization. His newfound consciousness would allow him to become a political being, actively striving toward the wider goals that the Führer established for the nation. Central to this process was indoctrinating the engineer in the new technical ideology, the outstanding example being “techno-political” courses held for engineers at the “Reich Castle for Technology,” the Plassenburg. Consequently, the direct contact between technician and Volk experienced on the Austrian voyage not only informed the layman of the advantages of technology, but also had the reciprocal effect of creating true National Socialist technicians, or, more precisely, setting the example to be followed. Thus the same press release stated:

Earlier it would have been unthinkable for a technical-scientific organization to take part actively in election propaganda. Only out of the total

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66 Unlike Todt, Feder had advocated a form of “völkisch technocracy” that implied a radical socio-economic transformation of Germany. Guse, “Nazi Technical Thought,” 5–18. On the “technocracy” movement among German engineers, see especially Stefan Willeke, Die Technokratiebewegung in Nordamerika und in Deutschland zwischen den Weltkriegen. Eine vergleichende Analyse (Frankfurt am Main: P. Lang, 1995); and Adolf, “Technikdiskurs,” 436–440.

67 Unsigned draft press release, “Die Technik fand das Volk,” NS14/5, folio 1.

conception of National Socialism, in which each individual not only works in his own specialty, but also on the realization of great political tasks, could this voyage be completed.\textsuperscript{69}

Not all German engineers accepted this National Socialist view of their role; several studies have demonstrated the limits of Nazi “coordination” of the German professions.\textsuperscript{70} In the case of the Austrian voyage, at least the Association of German Chemists (VDCh) was highly reluctant to have their work translated into propaganda, particularly at the expense of falsifying statistics. As the voyage was being prepared, Dr. W. Foerst of the VDCh wrote to Dr. Flemming of the Press Office complaining strongly that he would not be pressured to produce statistics other than those provided by the Reich Delegate for Chemistry or the Economic Group Chemistry. To give unsubstantiated statistics, he argued, would be illegal, and any statistics used should be verified by the Office of Economic Improvement (\textit{Amt für Wirtschaftsausbau}). He concluded that “We can make no election propaganda with export statistics in the chemical area, for they are mostly regressive.”\textsuperscript{71}

Once the distinction between the ideal envisioned by Nazi ideologues and its qualified acceptance by the engineering societies is made clear, however, and allowing for the exaggerations and pompous declarations emanating from the train, this propaganda nevertheless accurately reflected the National Socialist conception of technology as expressed by Fritz Todt and the engineers of the Central Office of Technology. Engineers were to take a prominent place in the national community. His values reoriented, the engineer would become an active, politically conscious comrade, benefiting from direct contact with the masses he served. Engineers became symbols of an acceptable, indeed desirable, modernity.

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The apparent success of the Austrian voyage of technology as propaganda led to another traveling exhibit, under similar circumstances, into the Sudentenland between November 24 and December 4, 1938. Again the voyage was part of an election campaign for a plebiscite to approve annexation to the Reich. Coming nearly two months after the Munich conference and the arrival of German troops in the Sudentenland and four months before Hitler’s triumphant arrival in Prague, the Sudenten Voyage, like its predecessor, presented German technology as an economic panacea and indispensable to the new National Socialist society. Even prior to the voyage, its techno-political orientation was made clear: “Inconspicuously, yet forcefully, the political application (\textit{Einsatz})

\textsuperscript{69}Unsigned draft press release, “Die Technik fand das Volk,” NS 14/5, folio 1.
\textsuperscript{70}On the “coordinating” of the engineering professions, see Ludwig, \textit{Technik und Ingenieure}, 105–175; and Jarausch, \textit{The Unfree Professions}, chapter five.
\textsuperscript{71}Dr. W. Foerst to Dr. Flemming, March 25, 1938, NS 14/5, folio 1.
of technology will become as evident to the visitor as the development of a machine, the fabrication of plastic, or a chemical process."  

Organized at the behest of Gauleiter Konrad Henlein and the Sudenten Nazi Party, the Sudeten voyage of technology was again directed by Karl-Otto Saur, who quickly confirmed his reputation as an abrasive taskmaster, particularly in his handling of the railroad personnel; in the internal train communication, Saur is satirized as the chief who “eats railway workers for breakfast.” Saur’s coworkers called him “Reich Cog-Railway General First Class,” chiding him to use a more respectable tone with his subordinates and to abstain from referring to them with such epithets as “assholes.” The masculine camaraderie among the Nazi engineers is evident in both the train newspaper and its satirical internal newsletter, wherein the participants were identified as Link (“the quiet pol” and “ladies man”), Kurz (“with the well-formed, poetic, classically graceful speech”), Priemer (“the flying Labor Front propagandist”), and Heil (the “Commander of Etiquette” [Sitten-Kommandant]), who were joined by Führer, Schneider, Flemming, Josef Greiner, and Heinrich Himmler’s brother, Gebhard, who headed the Office for Professional Questions (Berufsfragen) in the Central Office for Technology. Fifty-nine individuals made up the traveling contingent, including thirty German Railway employees. Of note is the fact that the train’s private “house notices” (Hausmitteilungen) satirized not only the engineers, but also the exhibit visitors, often with a caustic sense of superiority, in contrast to the comradely tone of the train’s propaganda. These engineers may have been sincere propagandists, but they often saw themselves as superior to the masses that their propaganda said they were meant to serve.

Robert Ley, head of the German Labor Front, briefly inspected the train in Leipa, where the director of the Czech railroads and other ranking Czech dignitaries also visited; Saur turned down an invitation to take the train to Prague for “technical and also political reasons.” Todt himself traveled with the train only

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73 Link, “Merkblatt für die Kreis- und Ortsgruppenleute der NSDAP im Sudetengau,” November 1938; and Efde, “Hausmitteilungen (anonym),” both in NS 14/5, folio 2.
77 Dr. Ley bei den Sudetenfahren,” Völkischer Beobachter, November 30, 1938; and Gringmuth, “Teure hinterbliebene Frauen!,” December 1, 1938, both in NS 14/5, folio 2.
from Wiesau in Upper Palatinate to its first stop in Eger, where he turned it over to Konrad Henlein’s representative, declaring, “One hears again that technology has little political impetus (*Auftrieb*) and that in general technicians engage in little political activity in their work . . . The Special Train of German Technology demonstrates that at the right moment the German technician is also a great activist and propagandist.”

The Sudenten voyage was run on a grander scale than its predecessor. Two separate trains with three locomotives and a total of sixteen railroad cars took part. This time one train was built expressly for exhibition purposes. One exhibit showed synthetic materials developed primarily through new chemical processes: vanadium extracted from iron ore sediments; high-performance tools created through alloying and thermal processing; new rust-free, acid-proof, heat-resistant steel (to replace rare or imported minerals); plated steel girders; steel and alloy parts for automobiles and aircraft; synthetic rubber, textiles, and plastics. The “wonder work” was a model of a motor made from Plexiglas, as designed by Cologne engineer Peter Koch. As on the Austrian voyage, the German Railways presented textiles made from cellulose, synthetic fibers, and rubber; metal parts

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from lightweight alloys; synthetic pipes and conduits; and upholstery constructed from wood waste.81 Displays and models abounded in the exhibit on “New Construction in the Third Reich,” including the Autobahn system and its impressive bridges, a model home for Hitler Youth (the Julius-Streicher Settlement), a “garden city” settlement, a Zeppelin field, and the new Strength through Joy steamship Wilhelm Gustloff.82 Added especially for the Sudenten voyage were exhibits on economic recovery and reconstruction in Austria, similar plans for the Sudentenland, and a display on the Westwall defensive line being built by the Organization Todt along the French frontier.83 The second train had two regular second-class cars that served as offices and sleeping quarters for the engineers, two platform cars to carry a new KdF-Volkswagen and field kitchens, a provisions car made of lightweight metal, and a baggage car with twenty-seven tons of propaganda material.84 The train had its own post office, printing press, and radio-film center.

From Eger, the trains passed through the heart of industrialized Bohemia: through Falkenau, with its large chemical and electrical plants; Karlsbad, center of the porcelain industry; Komotau, railroad construction center; through the coal-mining region around Brux; through the Sudenten chemical center in Aussig; to the new “Gau capital” Reichenberg, home region of Ferdinand Porsche, creator of the Volkswagen. From there the exhibition visited the eastern Sudentenland before returning to Reichenberg. Covering 2,500 kilometers with twenty-seven official stops, the Sudeten voyage was an even larger success than the Austrian voyage: 312,000 visitors in ten days and 185 film presentations—sometimes shown ten or more times at a single stop—seen by an additional 120,000. The crew distributed 220,000 pictures of Hitler, 300,000 “Winter Help” postcards, and thirty-four tons of Labor Front material. Supposedly “nearly one in every ten Sudenten Germans saw the exhibition.”85 See Figure 4.

84J. Greiner, “Grossfahrt der deutschen Technik ins Sudetenland,” Völkischer Beobachter, November 11, 1938, NS 14/5, folio 2.
This trip had a stronger consumerist orientation than the Austrian voyage. In addition to the new Volkswagen for display, radios and vacuum cleaners were exhibited to demonstrate “technology in the service of the family.” Technology would ease working conditions, improving performance and
public health. The primary thrust of the technical exhibits remained the display of technology for industrial use, but technology for improved household living found its place—and the Volkswagen must have engendered reveries of motorizing. Consumerist fantasies were reinforced when the 100,000th visitor to the train, a highway worker from Jechnitz, was awarded a radio; the 200,000th was given a washing machine; and the 300,000th a refrigerator. Sudeten Germans could look forward to “healthier homes, greater joy in life and leisure, and truly valuable goods [Kulturgüter].”

One wonders if the peasants or workers who visited the exhibits found most of the highly technical items presented as intrinsically interesting as the engineers themselves did. This was certainly a concern of Saur in planning the voyage. Sensitive to what must have been perceived weaknesses of the Austrian voyage, he insisted that exhibits be organized so that the visitor needed “the least possible expenditure of his own conceptual ability.” Propagandist Josef Greiner was defensive about exhibits that could not easily be understood by visitors and claimed in the Völkischer Beobachter prior to the voyage that the method of presentation did not allow “fatigue and boredom,” that walking through the exhibits would be an enrichment rather than an effort, that short explanatory text was used only when absolutely necessary. Exhibits would contain fewer statistics (“the horror of all exhibition visitors”) and no complicated models. To his mind, the simplicity and logic of the technical presentations were unequaled in Europe.

Of perhaps greater interest than alloys and girders for most visitors were the displays and models depicting economic recovery, massive construction projects, and the attendant political propaganda. As on the Austrian voyage, the exhibits went far beyond technological innovation to encompass a vast range of Nazi projects. Not only was heavy emphasis placed on “Strength through Joy” and “Beauty of Labor” projects, but the whole scope of Nazi political, economic, and even military activity was represented. Typical are some of the titles of picture and photo displays: “Germany’s Iron Army,” “Goals of the Four-Year Plan,” “Demonstrations of Political Will,” “Free Peasants on Free Soil,” “Socialism of the Act,” “Soldiers of the Spade,” “Germany Builds!,” “No Strength without Joy,” “Combat Troops of the Movement.”

voyage engineers truly were, as they called themselves, “active propagandists” (*Propagandisten der Tat*) for the regime.91

That large crowds awaited the trains and visited the exhibits is attested to by photographs in the press.92 Nevertheless, and without denying what must have been the genuine attraction of the “Wonder-Train of Technology,” part of the motivation for many visitors had to have been the hot chocolate, cake, sausages, and bread given out by the field kitchens accompanying the exhibits. Tickets for free food were distributed to those considered needy by the trains’ advance party prior to its arrival at a destination.93 By the seventh day of the voyage, it was estimated that more than one-third of the 223,600 visitors had been fed in the kitchens.94 At its conclusion, the train had distributed at least 115,000 packs of biscuits; 80,000 portions of chocolate; and 35,000 sausage and bread rations.95 One visitor in Komotau voiced what must have been a common sentiment: what pleased him most was that, in addition to the marvelous exhibits, he could eat his fill without it costing anything.96

As on the Austrian voyage, attacks on the Jews were frequent, further evidence that Todt and his engineers were much more openly anti-Semitic than has sometimes been thought.97 The train’s engineers reported back with enthusiasm to their wives how Karlsbad was proud that there were no Jews left in the city.

91Dr. Flfg. [Flemming]/Schr., “Sudetenfahrt der deutschen Technik. Übersicht über die Bilderschau und die erforderlichen Arbeiten bezw. Anschaffungen,” November 3, 1938, NS 14/5, folio 2; and Greiner, “Männer der Technik als Propagandisten der Tat.”

92Photograph by Josef Greiner accompanying article by J. Greiner, “Die Sudetenfahrt der deutschen Technik. Ein grosser Erfolg. Fast 175 000 Besucher nach vier Tagen,” National Zeitung, Essen, November 30, 1938; and photograph by Wagner or Greiner accompanying article by W. Kosubek, “Sudetenfahrt der deutschen Technik,” Rundschau Deutscher Technik, December 1, 1938, both in NS 14/5, folio 2.

93Link, “Merkblatt für die Kreis- und Ortsgruppenleiter der NSDAP im Sudetengau,” November 1938, NS 14/5, folio 2.


95“Abschluss der Sudetenfahrt. Der Zug der deutschen Technik in Reichenberg,” Die Zeit (Reichenberg), December 5, 1938; and “Die ’rollende Leistungsschau’ der deutschen Technik. 185 Tonfilm-Vorführungen im Ausstellungszug—Abschluss der Fahrt in Reichenberg,” Berliner Montagpost, December 5, 1938; both in NS 14/5, folio 2. Greiner claimed that 115,000 portions of bread and sausages, as well as biscuits, had been distributed—a probable exaggeration. J. Greiner, “Der Abschluss der Sudetenfahrt der deutschen Technik. Leisungsbericht,” Völkischer Beobachter, December 5, 1938. At the outset the train carried 16,000 sausages, 16,000 packs of biscuits, and 25 barrels of dry milk. “Rollende Leistungsschau der deutschen Technik. Von München aus führen die ‘Wunderzüge’ in das Sudetenland,” Münchener Zeitung, November 24, 1938. All above in NS 14/5, folio 2.


that the “Jewish hotel” and the “Jewish nursing home” were remnants of the past.98 In Leipa, the Jews had “disappeared” along with the Czechs.99 “Infamous Jewish policies” were blamed for keeping wage levels low for miners in Falkenau, due to the “sadistic greed” of Jewish mine owners and coal merchants.100 On this voyage, however, not only were the Jews attacked as harbingers of economic ruin, but the Czechs as well. A Jewish–Czech-capitalist conspiracy was singled out as the cause of the Depression.101 The Prager Bösenjuden became the collective scapegoat blamed for factory closings in northern Bohemia. In Karlsbad, the closing of textile and glass factories was blamed on “the catastrophic policies of Czech-Jewish high finance.”102 Josef Greiner declared that Sudeten technology was no longer to serve capital, for the profit of companies and their stockholders, but for the well-being of the whole society.103 Such phrases suggest that, in addition to anti-Semitism, considerable anticapitalism, similar to that espoused by Todt’s predecessor Gottfried Feder, still permeated the Central Office for Technology.

A telling example of the engineers’ anti-Semitism occurred in Deutsch-Gabel. While visiting the town, Saur and a group of engineers chanced upon a 300-year-old Jewish monument inscribed in Hebrew. Receiving no satisfactory explanation for the monument from the mayor’s office, and despite assurances that its presence brought the town significant tourist revenue, Saur decided to take matters into his own hands. After acquiring black weather-resistant varnish and fortifying themselves with the local brew, the engineers, accompanied by townspeople and a journalist, proceeded to obliterate the inscription. This petty vandalism completed, they spent the rest of the day drinking and “terrorizing” the inhabitants—indeed, beating up two individuals, proclaiming themselves “active propagandists” of whom the infamous Julius Streicher himself would have been proud, cleansing the Sudetenland of “disgraceful Jewish-Bolshevik culture.”104 See Figure 5.

98 Gringmuth, “Teure hinterbliebene Frauen!,” December 1, 1938, 3, NS 14/5, folio 2.
99 Dr. Ley bei den Sudetenfahrt, ”Volkischer Beobachter,” November 30, 1938, NS 14/5, folio 2.
The actions of Todt’s close subordinates, engineers who claimed to represent Todt’s ideals, suggests strongly that, while not a raging anti-Semite, Todt was not the “outsider” who did not identify with Nazi racial laws and who simply was “bound” to the party line, as portrayed by Franz Seidler. The overt anti-Semitism displayed by the Nazi engineers during these voyages corroborates Thomas Zeller’s argument that Todt’s Deutsche Technik ideology, which Zeller labels a “peripheral segment” of Nazi ideology, was linked to Nazism’s core beliefs by its anti-Semitic character. Indeed, for Jeffrey Herf, the racial struggle between Aryan and Jew was central to Nazi understanding of technology.

Todt and the Central Office for Technology engineers viewed the Sudenten Voyage as more than mere election propaganda. It was also to serve as a catalyst for solving practical problems, as is shown by an interview with Rupert Glass, Todt’s choice to head the Sudenten Office for Technology. Lamenting the deleterious effect of Czech rule, Glass outlined specific areas where technical expertise was needed, the first being road building and highway construction in

106Zeller, Driving Germany, 68–70.
order to lower unemployment. Glass enumerated further the need for levees and dikes in the mountainous areas subject to flooding, the general shortage of adequate housing, the need to replenish the forest economy by new plantings and the draining of swamps, and finally the planned integration of the Sudeten economy into the Four-Year Plan with its goal of national self-sufficiency. He struck a völkisch note in his desire to renovate villages that "especially in the industrial areas show marks of a capitalistic culture-less time." Glass reflected the current in Nazi technical thought that sought a balance between mechanization and the industrial worker, claiming that true National Socialists see human concerns next to technical ones: "We want never to forget that it is the worker who realizes, with us, the creations of technology... Where it is possible to ease the lot of the worker without the loss of jobs, it is for us to provide for the sensible introduction of the machine." Glass concluded menacingly that the incorporation of all Sudeten engineers into the NS League of German Technology (NSBDT), the Nazi umbrella engineering association, was a prerequisite to fulfilling these projects.

Glass’s views are representative of the technical ideology fostered by Fritz Todt and indicative of the position allotted technology in the Nazi worldview by 1939. Technology, neither the symbol of decadent modernization seen by "blood and soil" fanatics, nor simply a utilitarian tool for rapid economic development, would serve Volk cohesiveness. Technology’s transformation was integral to the "spiritual revolution" envisioned by Todt and like-minded Nazi ideologues. The harmony of the national community was to extend beyond social integration to encompass man, machine, and nature in a collectivist whole, the outstanding example being the Autobahnen, with their attempt to express the German soul through an artistic synthesis of highway and landscape.

Fritz Todt was responsible for this emphasis on creating a harmony of man, machine, and nature and on unifying technology and art, themes to which he repeatedly returned in his speeches and writings—often using the pseudo-philosophic jargon of the Nazi zealot. Since the essence of technology is a consequence of the laws of nature, argued Todt, the outward form of technological

109 Sudetenland unemployment was indeed lowered dramatically, but at the cost of a constant drain of workers to the Old Reich, which led paradoxically to an influx of detested Czech workers to the Sudetenland. Ralf Gebel, "Heim ins Reich!" Konrad Henlein und der Reichsgau Sudetenland (1938–1945) (Munich: R. Oldenbourg, 2000), 243–250.

110 On the integration of Austrian engineers, see Jarausch, The Unfree Professions, 168–169.


112 A good summary of Todt’s ideas are his “Plassenburg Quotations” (“Plassenburg Worte”), which are excerpts from his speeches to engineers at the Plassenburg school; they are contained in NS 14/78. Some examples are found in Seidler, Fritz Todt, 58.
works should express this inner essence. Technical works “should correspond to their spiritual content: a power station should not appear beautiful, but rather strong. A bridge should be daring in form, a pylon slender, a locomotive heavy and swift.” The Autobahnen were “to make out of nature and technique one perfect unit” that reflected “the deeper and spiritual movement of the National Socialist revolution . . . a psychic and cultural renovation of the German citizen.” The highways, built with “artistic feeling and a love of nature,” would lend a new character to the German landscape, the vastness of the scene helping Germans to “think on broader lines than was heretofore possible.” Artists would be inspired by the “heroic conception of a technical problem,” and highway construction engineers would draw inspiration “by viewing the landscape with the eye of the artist.” This ideology found expression in various forms on the voyages of technology. For example, “Beauty of Labor” propaganda stressed the need for clean, well-lit working conditions, including “above all else, flowers, flowers wherever possible: on the workbench . . . on the writing table, everywhere else.” As with Autobahn aesthetics, natural beauty and technological innovation went hand in hand for Nazi propagandists.

Following the Austrian and Sudenten voyages of technology, it was evident that technology could be useful propaganda. The Nazi engineers now sought to use German technological achievements for diplomatic and propaganda purposes beyond the frontiers of the Reich. By so doing they would have a greater voice in foreign policy decisions. This reflects both Todt’s technocratic ideal of the role of engineers as political leaders, plus the desire of Todt and Saur for more power vis-à-vis the other political fiefdoms of the Third Reich.

A meeting of Central Office of Technology personnel took place in Munich on January 26, 1939, to plan a third voyage of technology through eastern Europe, with stops in Poland, Czechoslovakia, Hungary, Romania, Yugoslavia, Greece, Bulgaria, and Turkey. This “southeast voyage” was to take place between May 17 and June 10, 1939. According to Saur, the voyage would support the declared aim of the Economics Ministry that southeastern

113 Todt, “Plasenburg Worte,” NS 14/78.
114 Fritz Todt speech at the 73rd VDI convention, Breslau, 1935, VDI-Archiv, Düsseldorf.
Europe “must be conquered for Germandom and above all for the German market.” The overall purpose was political and economic rather than purely propagandistic, hence visits to the exhibits were to be limited to twenty-four members of the host country’s government, plus a further thousand individuals representing political groups, industry, and economic affairs, in addition to the residents of the official German community. Exhibits were to reflect the needs of the countries visited: agricultural technology, settlement planning, road and railroad construction, and energy development. Estimating its cost at 200,000 Reichsmark, Saur claimed that the voyage would demonstrate that Germany was not interested in the southeast due to pretensions of power (Machtanspruch), but because of the chances for “reciprocal economic and cultural fertilization.” Xavier Dorsch, at the time head of the Foreign Bureau in the Central Office for Technology, cautioned that the voyage “must be politically scrutinized and prepared.” Given anticipation that the rest of Czecho-Slovakia, as it had been re-titled, would be incorporated into the Reich, Dorsch openly posed the question that must have been on the mind of all the participants: “Should Prague be visited?” Dorsch and Heil were tasked with informing Alfred Rosenberg of the project.118

At least one precedent existed for such a propaganda exhibit traveling through southeast Europe to enhance German foreign policy. In the late winter or early spring of 1938, a “Strength through Joy” exhibit entitled “Joy and Work” containing photographic displays, models of leisure ships and resorts, and Beauty of Labor furnishings traveled throughout Yugoslavia, Bulgaria, and Romania to Greece, where it was visited by the king.119 By the following year, however, the annexation of the Sudentenland and Hitler’s bellicose intentions had shifted the foreign policy context considerably.

A second planning meeting occurred on February 16, 1939, in the offices of the Inspector General for Highways (Todt) in Berlin. Present were Saur, Link, Schneider, Dr. Kurz, Greiner, and Dorsch for the Central Office of Technology; Dr. Garben of the Foreign Office; representatives of the German railroad; exhibit specialists; and Heil as the liaison with Alfred Rosenberg’s office. Saur again emphasized the political nature of the trip, adding that the voyage should demonstrate “the highest technical achievement of the Third Reich” and should be “tailored to the consumer of the individual country.” A number of specialized technical developments, such as the electron microscope, were to be combined with exhibits of more general interest. “If the voyage were


119 Baranowski, Strength Through Joy, 63; and e-mail correspondence with the author, August 27, 2010. My thanks to Professor Baranowski for information about the time period of the Strength through Joy voyage.
to display only specialized technical achievements,” said Dorsch, “there is the danger that what is shown would be of great personal interest for the visiting ministers, but of no practical meaning for their country and people.” Reference was made to the fact that both France and England were planning similar exhibitions in eastern Europe, to which Saur replied that “we, however . . . want to show something completely new on the basis of [our] experience.” Due to the political orientation of the voyage, Dr. Garben suggested that the foreign legations of the countries concerned be invited to a demonstration showing. It was made clear that the voyage would not be made public until the Minister of Economics, Walther Funk, and the Minister of Foreign Affairs, Joachim von Ribbentrop, had given their approval; Dorsch was to contact Funk and von Ribbentrop that same afternoon.120

Despite Joseph Goebbels laying claim to an “age of technology” at the Berlin Auto Show the following day, interests other than those of Todt and Saur intervened, and planning for the southeastern voyage was abruptly halted.121 Internal disputes, such as the rivalry between Funk and von Ribbentrop, plus the opposition of those who disliked the incursion of the Central Office for Technology into foreign affairs, quite possibly were decisive. Certainly the increasingly tense international situation played a role. Hitler secretly lectured Wehrmacht officers three times in January-February 1939 to prepare for the coming conflict, as he contemplated his next foreign policy move. The fact that the voyage was planned to travel through Poland, whose refusal to reach accommodation on Danzig had hardened Hitler’s approach, and through what remained of Czecho-Slovakia, which Hitler had decided to smash militarily, probably made the voyage an impossibility.122 Further research is required to determine the exact reasons, but the planned southeastern voyage of technology was dropped and never became public knowledge.

This development is significant both politically and ideologically. The expanding role for engineers envisioned by Fritz Todt and Karl-Otto Saur, a Nazified form of technocracy, which had found expression in the “reordering” of the technical associations under the party in 1937, in the Plassenburg courses, and in the Voyages of Technology, was temporarily halted. For the moment, Todt and the Nazi engineers were limited to “techno-political” control within the Reich.

121Jeffrey Herf considers Goebbels’s speech, in which he evokes the “steely romanticism” of the times, the classic expression of reactionary modernism. Herf, “Die nationalsozialistische Technikdiskurs,” 87; and Herf, Reactionary Modernism, 196. It is interesting to note that trips planned by professional engineering societies to attend the New York World’s Fair were canceled in January due to “the political situation.” Link, “Akten-Notiz Betr.: Frühjahrsreise des Amtes für Technik mit dem KdF-Schiff Robert Ley,” January 21, 1939, 4, NS 14/5, folio 1.
122See Kershaw, Nemesis, 163–168.
Their authority and influence would later increase after Todt became Minister of Armaments and Munitions in 1940. From the standpoint of Nazi ideology, it suggests that, while engineers had been integrated into the Nazi worldview and had come to be seen as essential to the national community, there were limits to how far the party hierarchy was willing to go in proselytizing Todt’s specific technical ideology. The vision of man, machine, and nature linked harmoniously together to serve the national community might make good propaganda for Volk comrades, but it could not take precedence over political and military goals.123

The cancellation of the southeast voyage of technology is an indication of the limits of reactionary modernism within National Socialism, at least as concerns actively spreading Todt’s technical ideology beyond the frontiers of the Reich. And the abrupt end of the southeastern voyage is a mild forerunner of what was to happen to the Central Office for Technology and its educational, press, and propaganda functions once Albert Speer succeeded Fritz Todt in 1942: they were shut down in the name of the war effort.124 By that time the regime was going in two opposing directions in what could be labeled the paradox of “fanatical utilitarianism.” As the war progressed, elements of Nazi ideology not essential to the central racist dynamic of the movement began to lose influence to a more utilitarian approach, a tendency that accelerated in the last years of the war. This was true of “German physics,” for example, and it was true of Todt’s Deutsche Technik ideology.125 At the same time, however, especially after 1942, the regime returned to what Hans Mommsen labels a Kampfzeit mentality, exposing and carrying to unthinkable extremes the brutal, irrational core elements of Nazi ideology.126 In the desperation of pending defeat, concepts of a technocratic, future-oriented, harmonious community were replaced with frantic calls for active defense of a disintegrating Volksgemeinschaft.

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123Even Todt had begun to sacrifice his commitment to preserving the German landscape with his construction of the Westwall fortifications in 1938. Maier, ”Nationalsozialistische Technikideologie,” 262–263.


The last Nazi voyage of technology had none of the political goals of its predecessors. It was, however, highly symbolic as a concrete expression of Todt’s technical ideology at its apogee, coming just prior to the outbreak of the war. A pleasure cruise to the Norwegian fjords for some 1,500 German technicians and representatives of German industry on the new Strength through Joy steamship Robert Ley from May 10 to 16, 1939, the Norwegian Voyage of German Technology was far from devoid of ideological overtones. The passengers, generally selected through their local NS League of German Technology chapters, included leading party figures (Todt, Rosenberg), Transportation Minister Julius Dorpmüller, scientists, economists, and SA and military officers. A few foreign guests were invited, who were certainly impressed by what Shelley Baranowski describes as a combination of “technological glitz and creature comfort.” Reports from the cruise marveled over the ship as a technical “masterpiece,” the “grandiose mountain and water world” of the fjords, and the camaraderie developed in a myriad of leisure activities, ranging from enjoying the sports and sun decks to dancing, games, and evening entertainment.

Most passengers were engineers, prompting Todt to defend the voyage in an interview as more than simply a “floating engineer congress.” He argued that his task was to alter the engineers’ narrow professionalism and the impression, often shared by engineers themselves, that they served only material purposes. Not mere automatons, engineers were endowed with a mission in the life of the Volk, and they had the duty to participate fully in all aspects of community life. Therefore, for Todt, the Norwegian voyage was a pause in the everyday grind that would rejuvenate the engineer for his future efforts and awaken his interest in the world beyond his working environment. “Shoptalk” was supposedly limited to one hour per day. The beauty of the fjords would confirm the engineer’s attachment to nature, and cultural evenings would renew his taste for Kultur. Or, as the National Socialist newspaper Rheinfront put it in describing the voyage, the engineer could no longer lead the life of a “technical monk,” a “drawing board hero.” He must be transformed from an “all-too-serious, dignified gentleman” into a “more active, youthful individual” accomplished in “the

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127 Link, “Akten-Notiz Betr.: Frühjahrsreise des Amtes für Technik mit dem KdF-Schiff Robert Ley,” January 21, 1939, NS 14/5, folio 1. The number of participants was variously placed at from 1,500 to more than 1,600, with at least 1,200 paying 75 RM for the cruise. Overall cost of the voyage was estimated at 100,000 RM.
129 Baranowski, Strength through Joy, 61.
130 “Der Weg zur Kamaradschaft. Bilder von der Nordlandfahrt der deutschen Technik,” Cottbuser Anzeiger, May 16, 1939, NS 14/5, folio 1. Singers, dancers, musicians, a magician, and a comic were among those hired to provide evening entertainment.
131 “Technikern mitten im Volk. NSK-Unterredung mit Hauptdienstleiter Dr. Todt,” Nationalsozialistische Partei-Korrespondenz, May 17, 1939, NS 14/5, folio 1. See also Seidler, Fritz Todt, 306.
A luxurious modern steamship, filled with dynamic, dedicated engineers and floating amid the beauty of the Norwegian fjords, was highly symbolic of Todt’s ideal: the harmony of man, machine, and nature.

The voyage was seen as furthering the goal of “reeducating” the engineer. “Technicians themselves,” said Todt, “are not the people with whom one can realize the highest political mission. For that, it is necessary to form and to educate engineers politically.” The Norwegian voyage was a natural extension of the Plassenburg courses aimed at indoctrinating engineers in the new technical ideology. It was a convenient way to bring together leading technicians in an atmosphere conducive to cooperation and mutual exchange of ideas, while at the same time furthering the Nazi ideological program. To hold the voyage up as an example for other engineers, an article describing the voyage was prepared for forty-three different professional engineering journals in Germany, in addition to articles in the popular press.

While on the Norwegian voyage, Alfred Rosenberg granted an interview that was published for the opening of the annual convention of the German Engineering Association (VDI) in May. It is a useful way to conclude our reflection of the Nazi voyages of technology, because it treats the role of technology as seen by a key Nazi ideologue, but one who was not an engineer, just prior to the transforming impact of World War II. The interviewer first made clear that the National Socialists desired a synthesis of technology and Kultur, ending a perceived or real dichotomy. Humans would have the feeling of mastering the machine, moving from an era where the machine was an expression of a purely materialistic conception of life, to the “techno-political epoch.” The principles of volkisch life and the Nazi worldview would determine the character (Wesen) of technology in the new period.

Rosenberg agreed that technology and Kultur had been alienated, due to a lack of understanding on the part of politicians and economists. The National Socialists placed the ideological attitude of the technician in the foreground, for “even the best specialist who is without a new conviction [Gesinnung] would be of extremely limited use to us. Only his ideological-political knowledge enables him to produce works conforming to the new, many-sided consciousness [Lebensgefühl].” Once reeducated, the technician could set about

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132 “Mit den Technikern nach Norwegen,” N.S.Z. Rheinfront, Saarbrücken, June 3, 1939, NS 15/5, folio 1.
133 “Technikern mitten im Volk. NSK-Unterredung mit Hauptdienstleiter Dr. Todt,” Nationalsozialistische Partei-Korrespondenz, May 17, 1939, NS 14/5, folio 1.
134 “Artikel ‘Norwegenfahrt der deutschen Technik,’” NS 14/5, folio 1.
solving practical problems. Through the application of technology, Rosenberg envisioned healthy housing, successful resettlement projects, and the creation of new industrial centers, echoing in some ways the previously discredited settlement projects of Gottfried Feder or those later developed by the SS for the east.137 “National Socialism,” declared Rosenberg, “has opened the eyes of the Volk to the meaning of technology” and technology had become “a natural expression [Ausserung] of the nation.” The airplane, radio, and automobile were now part of the political life of the country: millions could be sworn to an oath at the same time, and great communal gatherings were possible in an instant. And through technology, the defense of the nation was secured. Rosenberg, paraphrasing Hitler, concluded that the Nazi revolution “affords technology a new social status in which the principles of technology, politics, and thought [Idee] are brought into harmony.” Within four months of Rosenberg’s interview, the Wehrmacht was deep within Poland and the Third Reich had embarked on a war of conquest and self-destruction that obliterated Nazi fantasies of a harmonious, technocratic Volksgemeinschaft.

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The Nazi voyages of technology illustrate that by 1938–39, Deutsche Technik had become a mainstream element within Nazi Volksgemeinschaft propaganda, with technology presented as essential for the well-being of the national community. Based on assumptions of Aryan creative genius and on technocratic aspirations, Fritz Todt’s Deutsche Technik ideology was a key component of the Nazi worldview in the prewar period. In addition, these voyages heightened underlying consumerist aspirations, but because the Nazis stymied immediate mass consumption, for fulfillment in the future. As seen with the aborted plans for a southeast voyage, however, Todt’s technological propaganda was limited to the Greater Reich by the regime’s commitment to war in 1939. It would later disappear entirely in the reorganization for “total war.”138 The voyages of technology make clear that the role of technology in a National Socialist society was predicated on a dual transformation. The engineer was brought into the mainstream of the Volk community through reeducation (the Norwegian voyage), and Germans were taught the value of technology to the community (the Austrian and Sudenten voyages). For Nazi ideologues, the


138 Todt began this process himself by turning the Plattenburg into a medical recuperation home for construction workers and decentralizing techno-political education. Seidler, *Fritz Todt*, 59. For the subsequent “speaker program” put in place by Todt, see Guse, “Nazi Technical Thought,” 16–17; and Guse, “Plattenburg,” 239–257.
engineer stood with the soldier and the peasant farmer as an integral, if less tradi-
tional, member of the national community. The collectivist impulse in
National Socialism embraced the engineer and projected a society in which
man, machine, and nature functioned in harmony. It was, however, an exclusion-
ist society, and the blatant anti-Semitism of Nazi engineers shows how technol-
ogy was linked to the racist, genocidal core elements of Nazi ideology.

Fritz Todt and his engineers constantly referred to National Socialism as a
“spiritual revolution,” entailing a massive change in perceptions among both
engineers and the German public. We should remain skeptical as to what
extent most German engineers adhered to Todt’s vision or resembled the racist
ideologues of the Central Office for Technology. Yet our current understand-
ing of life in the Third Reich suggests that, far from meaningless rhetoric, this
“brown revolution of the mind,” as it has been called, found substantial echo
among a population that came to identify a secure, prosperous future with
National Socialism. Access to modern technology was an essential ingredient
of that future, one that Todt and his engineers presented with pride and enthu-
siasm on the voyages of technology.

American School of Paris, Emeritus

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139 On engineer-NSDAP membership, see Jarausch, The Unfree Professions, 166.
140 Fritzsche, Life and Death, 64. The phrase is from Klaus-Michael Mallmann and Gerhard Paul,