NTNU | Department of Modern History and Society

Case #23-2024

June 2024

Simon Renner

Nazi German suffiency? Recycling and nature conservation in Nazi Germany and Nazi occupied Norway

The green Nazis?

Nazi Germany developed its own ideologically charged interpretation of nature conservation, rooted in concepts that had emerged during the Weimar Republic – yet it differed significantly from modern environmental protection. It was often shaped by racial theories that emphasised a supposed inherent bond between the German people and their *native landscape*, most clearly expressed in the notion of *Blut und Boden* (blood and soil). This *völkisch*, national-romantic view of nature was already present among German conservationists before 1933, and was notably promoted by figures such as Walther Schoenichen. A trained biologist, Schoenichen had advanced state nature conservation efforts during the Weimar era in his role as director of the *Staatliche Stelle für Naturdenkmalpflege in Preußen* (State Office for the Preservation of Natural Monuments in Prussia). However, his vision extended beyond the mere protection of nature: he sought to preserve a German *Urlandschaft* (primeval landscape), infused with the perceived racial and cultural characteristics of the German people.[1] Schoenichen attributed

the slow progress of his efforts towards stronger conservation measures to the inefficiencies of Weimar parliamentarism. He saw National Socialism as an opportunity to advance nature conservation more decisively.[2]

In fact, as early as 1935, a comprehensive nationwide nature conservation law (*Reichsnaturschutzgesetz*) was enacted. This was chiefly pushed through by one of the highest Nazi officials, Hermann Göring, as Prussian Minister-President and, since 1934, *Reichsforstmeister* (Imperial Forestry Master). In this role, Göring succeeded in passing the *Reichsnaturschutzgesetz*. Göring's interest in the law was, at least to some extent, personal. During the planning process, he openly expressed his intention to transform the Schorfheide – a former royal hunting ground where his lavish estate was located – into a nature conservation park modeled on the Yellowstone National Park in the United States. [3]

The law defined nature reserves and, for the first time, landscape conservation areas as further areas of protection, and enshrined the protection of plant and animal species in law.[4] Schönichen praised the new legislation for its contribution to nature protection in the intererest of creating a *Volksgemeinschaft* (people's community).[5] He became part of the newly established *Reichsstelle für Naturschutz* (Reich Office for Nature Conservation) created under the law, serving as one of four official scientific staff members.[6]

Despite this breakthrough in nature conservation, a conflict between leading conservationists and Nazi politicians, especially Hermann Göring, soon became apparent. In practice, the Nazis subordinated nature conservation. This is already clear from the 1935 law itself. The law stipulated that nature conservation was not to interfere with the exploitation of natural resources, Germany's military build-up, or important infrastructure projects.[7] In early May of the following year, Göring took over leadership of the newly established *Rohstoff- und Devisenstab* (Raw Materials and Foreign Exchange Staff) and ensured that these priorities were enforced. Nothing was to stand in the way of securing raw materials and finances for rearmament.[8] In practice, this meant that nature reserves regularly had to make way for *Reichsautobahnen* (motorways), military installations, or expanded mines.[9]

This subordination of nature conservation in favour of mining and railway projects had already deeply frustrated Schoenichen during the Weimar Republic.[10] It now became clear that this tendency not only continued under the Nazis but, in some ways, even worsened due to their large-scale infrastructure projects. Several leading German conservationists expressed dismay. One of the most striking

reactions came from the *Landesbeauftragte für Naturschutz* (State Commissioner for Nature Conservation) in Württemberg, a constituent state within the German Reich, who put it bluntly:

„The assault on German nature and landscape, as it is currently being carried out on the largest scale through the Labour Service, job creation programmes, the demand for nourishment from one's own soil, road and waterway construction to promote transport, rearmament, land settlement, […] and the production of as many raw materials as possible, goes far beyond the cultivation efforts of Frederick the Great and can at most be compared to the great clearances of the Middle Ages."[11]

Recycling for cannons

The recycling programme did not emerge from motives of nature conservation but from Nazi rearmament goals and the drive to become as self-sufficient (*autark*) as possible, especially in strategically important areas. It was shaped by the experience of shortages during the First World War and thus emerged from military and economic constraints. The ecological potential of recycling, such as reducing environmentally harmful resource extraction or waste disposal, was barely recognised by contemporaries. This was largely because recycling at the time did not actually reduce the extraction of raw materials. On the contrary, it was intended to compensate for lost imports while domestic resource exploitation was intensified. Recycling was therefore not meant to replace resource extraction, but to complement it.

Rearmament and self-sufficiency (Autarkie) were central goals of the economic plan ordered by Hitler in August 1936 and presented by Göring in September; the so-called Four Year Plan (Vierjahresplan). Rearmament required vast quantities of raw materials, and to avoid strategic vulnerability, the regime aimed to source these materials from within Germany. This goal posed enormous challenges for Germany, a country relatively poor in natural resources. How could such a resource-poor nation secure the raw materials needed for its armaments industry – especially in the event of war? The solution was seen in a range of measures, many of which had already been utilised during the First World War. These included the forced extraction of domestic resources, the rationing of key materials, the development of substitutes, and the recycling of metal-containing goods.[12]

Göring was a key driver behind these measures, including recycling. He was appointed by Hitler to lead the authority created for the Four Year Plan (*Vierjahresplan*), which effectively took control of the

war economy. In November 1936, the plan's *Geschäftsführung Rohstoffverteilung* (Working Committee for Raw Material Allocation) issued an 11-point plan to reorganize the "household collection of scrap."[13] Large scale scrap collection began in the same year organised large-scale household scrap collections.[14] In the following year the collections increasingly became enforced by force. In August 1937 Goering decreed that all cities with over 35,000 inhabitants sort household trash at their garbage dumps, remove all salvageable material, keep statistical records of the quantity of waste, and report it monthly.[15] In addition, Germany significantly increased its recycling capacities in order to be able to quickly provide sufficient capacities for the processing of even larger quantities of scrap. After the outbreak of the war, the Nazis introduced further – even more extensive – metal collection (see *Figure 1*) and recycling programmes.[16]

Figure 1: On 27 March 1940, Hermann Göring issued a call for metal donations. The Church of St. Ulrich in Regensburg was designated as the collection point, as shown in this photograph taken on 9 April 1940 (Photo: City of Regensburg, Image Documentation/Christoph Lang).[17]

Nazi Germany did not limit its recycling efforts to metals; it also promoted the reuse of other materials, such as paper. While recycling programmes were primarily aimed at addressing resource scarcity, propaganda also framed them in terms of environmental protection. This is illustrated by the poster in *Figure 2*, which encourages the collection of wastepaper in order to "save the German forest". This concept of "German forest" was heavily ideologised. It was not simply about nature conservation, but rather the preservation of an idealised, supposedly quintessentially German landscape. However, at

the same time, while waste collection for forest conservation was promoted, Nazi policies led to increased deforestation, partly driven by high demand from the chemical industry.[18]

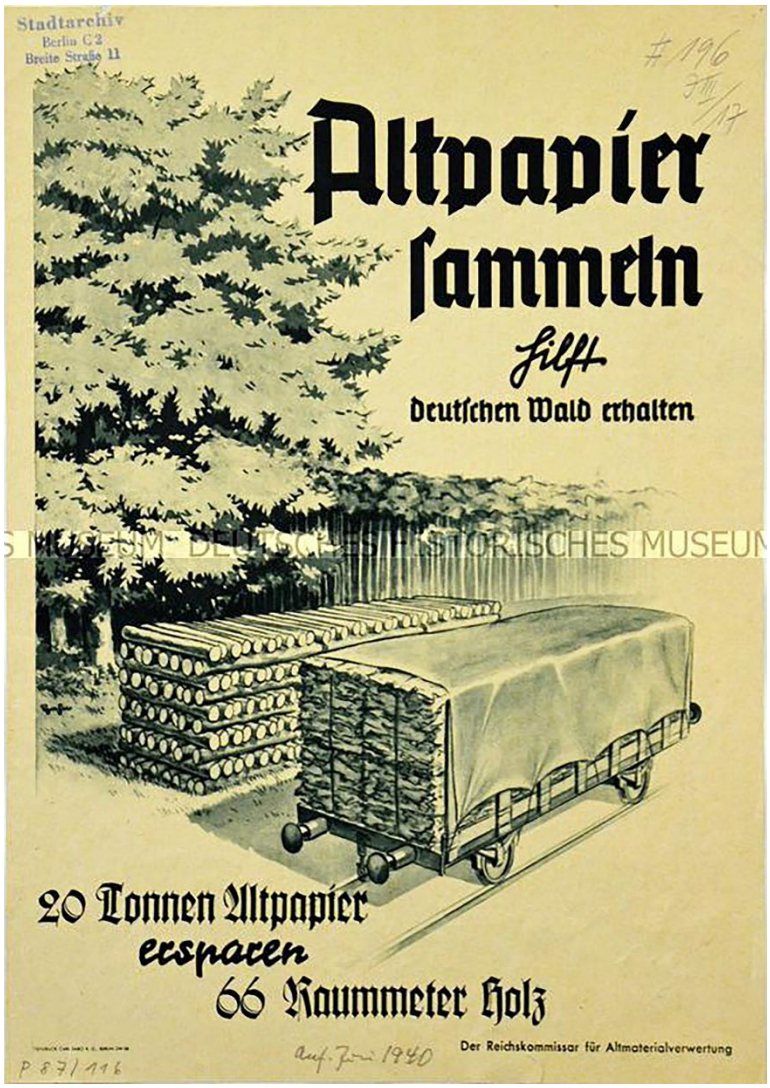

Figure 2: A 1940 propaganda poster by the Reichskommissar für Altmaterialverwertung promotes wastepaper collection with the slogan, "Collecting paper helps to preserve German forests." The poster emphasizes that 20 tons of recycled paper can save 66 cubic meters of wood.[19]

Notably, recycling efforts were not unique to Nazi Germany. Allied countries implemented similar programmes, particularly during the Second World War. Especially the German occupation of Norway prompted Britain to advance its recycling program, specifically regarding wood and paper, after being cut off from Norwegian supplies.[20] In addition, France, for example, employed a recycle program in the beginning the war. Nevertheless, Germany was seen as a pioneer, both during the First

World War and again in the Second World War, and to some extent served as a model for other nations.[21]

Norway's metals for the Wehrmacht

On the same day in April 1940 when the above photograph of collected metal objects in Germany was taken, Nazi Germany began its invasion of Denmark and Norway under the code name *Unternehmen Weserübung*. The securing of raw materials played a key role in this operation, including Swedish iron ore transported via Narvik, various other metals and their ores, as well as timber and fish. The operational plan for the invasion included a list of raw materials and manufactured goods that the Wehrmacht intended to mobilise.[22] Göring, in his role as *Reichsluftfahrtminister* (Reich Minister of Aviation), saw particular potential in Norway's aluminium production – an important metal widely used in aircraft manufacturing due to its light weight.[23]

At the end of April, the occupation administration was established, headed by *Reichskommissar* Josef Terboven as the highest civilian authority and Nikolaus von Falkenhorst as the Supreme Commander of the Wehrmacht in Norway. Under their direction, in coordination with German (*Rohstoffverwaltungsstellen* (raw material administration offices) and with the involvement of German industrial companies, a range of Norwegian raw materials were extracted and shipped to Germany. These included vital metals such as aluminium, nickel, copper, and molybdenum, as well as fish – although the deliveries fell short of expectations.[24]

Figure 3: *Josef Terboven (front left), with Nikolaus von Falkenhorst, the supreme commander of the German forces in Norway, behind him to the right, during the so-called State Act at Akershus on 1 February 1942.* [25]

However, forced extraction was not the only way the Nazis sought to secure essential resources from Norway. Similar to the approach in Germany, the Nazis aimed to gain the maximum amount of raw materials for armaments production through a bundle of measures. Thus, Nazi Germany extended its domestic practice of scrap metal collection and recycling to occupied Norway, while strictly regulating the consumption of a range of strategically important metals. Old materials were to be reused, and wherever possible, consumption was rigorously reduced – the metals were not to be used for pans, but for weapons production, and even there as sparingly as possible. Even the procurement of metal-containing equipment by the Wehrmacht was strictly controlled, and any purchase of metal or metal-containing items, such as heaters or radios, required an official application (*Wehrmachtkleinbedarfsbescheinigung*)[26]

Already about six months after the start of the German invasion, the occupiers initiated the so-called *Metallmobilisierung* (metal mobilization) – the collection of scrap metals and their recycling. A more systematic organisation was established with the founding of the *Metallsentral* (Metal Central Office) in October 1941. This institution coordinated metal collection across the entire country. It was formally subordinate to the Norwegian *Næringsdepartement* (Ministry of Industry), but remained under strong influence from Terboven and Falkenhorst. Large-scale campaigns for collecting scrap and metal-containing items, such as motor vehicles and various household objects, were organised regularly, usually on a monthly basis, in all major cities. The collected scrap was partly sent to Germany for recycling and partly processed within Norway.[27]

From railing to grenade: for Norway or for the Reich?

From the Norwegian side, the German raw material management measures were met with some criticism and at times reached their limits. Officially, the metal mobilization was also justified as a way to improve the supply situation of the Norwegian industry. However, from the outset, it also served the raw material supply needs of the German war economy. The Norwegian head of the *Metallsentral*, Ole Ingier Vold, made efforts to ensure that a portion of the collected materials actually went to Norwegian industry. This stance aroused suspicion among the occupation authorities and likely contributed to his removal in August 1942. Later, the planned melting down of church bells also proved controversial, facing resistance not only among the Norwegian population but also within the German administration, due to fears of public unrest. A widespread confiscation and melting down of church bells did never take place. However, the general metal collections continued.[28]

That the metal collections were primarily intended to serve the German war economy became increasingly clear during the occupation, as Falkenhorst unambiguously emphasized in October 1943: "The German armaments industry has an enormous demand for raw materials, especially iron and metals. [...] Every ton of iron helps forge weapons and repair bomb damage."[29] Due to the "strained raw material situation" ("*angespannten Rohstofflage*"), recycling efforts were to be carried out as swiftly as possible.[30]

Norwegian companies were involved in the recycling process. The collection of scrap was largely carried out by Norwegian scrap dealers. Norwegian firms were also engaged in melting down scrap and producing new materials, although a significant portion of the scrap was sent directly to

Germany. An important recycler was, for example, the Raufoss Ammunition Factory, which, as a producer, was also affected by metal-saving measures. The Raufoss Ammunition Factory was not only a producer of armaments but, before the war, a major steel and bronze manufacturer. It had its own metalworks and the necessary facilities to process scrap metal.[31]

The operations at Raufoss were coordinated by the *Metallsentral*. The Raufoss Ammunisjonsfabrikk regularly reported to the office about its scrap processing activities. In addition, metal waste that the factory could not process was also sent to the *Metallsentral*.[32] The factory was an important processor, particularly of steel scrap, which was regularly delivered to Raufoss, including scrap seized from other Nazi-occupied territories. Moreover, bronze scrap and other materials were recycled there.[33] Furthermore, the ammunition factory was required to inventory all non-ferrous metal fittings in its buildings, such as brass stair railings, which were also slated for melting down.[34] At the same time, Nazi occupiers ordered a reduction in the ammunition factory's consumption of copper and zinc. Wherever possible, steel casings were to replace brass casings – an alloy mainly composed of copper and zinc.[35]

Why continue recycling – without war?

With the end of the Second World War, the economic incentives for handling scrap materials changed rapidly in West Germany, as in most Western countries. What had once been a valuable resource increasingly became regarded as hazardous waste. Collecting and salvaging materials in households became associated with the hardships of wartime. Although industrial reuse of metal scrap remained important – and in some cases even increased – most salvage infrastructures disappeared in the decade after the war, and collection efforts slowed down significantly. Instead, the postwar economic miracle brought a massive increase in the extraction of raw materials, a surge in industrial production, and a corresponding rise in waste generation. The number of consumer products in households exploded, new plastics were introduced, and reusable goods often gave way to disposables. It was only in the 1970s, with the rise of environmental movements and growing awareness of waste problems, that recycling experienced a revival.[36]

End notes

[1] F. Uekötter, 'Einleitung' in Joachim Radkau and Frank Uekötter (eds), Naturschutz und Nationalsozialismus (Frankfurt am Main, New York: Campus, 2003), 13–32, here 20-25.
[2] C. Closmann, 'Legalizing a Volksgemeinschaft: Nazi Germany's Reich Nature Protection Law of 1935' in Franz-Josef Brüggemeier, Mark Cioc and Thomas Zeller (eds), How Green Were the Nazis?: Nature, Enviroment, and Nation in the Third Reich (Athens, Ohio: Ohio University Press, 2005), 18–42, here 27–28.
[3] E. Klueting, 'Die gesetzlichen Regelungen der nationalsozialistischen Reichsregierung für den Tierschutz, den Naturschutz und den Umweltschutz' in Joachim Radkau and Frank Uekötter (eds), Naturschutz und Nationalsozialismus (Frankfurt am Main, New York: Campus, 2003), 77–106, here 95.
[4] Ibd.
[5] Closmann, 'Legalizing a Volksgemeinschaft', 32.
[6] Klueting, 'Die gesetzlichen Regelungen der nationalsozialistischen Reichsregierung', 99.
[7] Das Reichsnaturschutzgesetz vom 26. Juni 1935 (RGBl. I. S. 821). RNG.
[8] D. Petzina, Autarkiepolitik im Dritten Reich (De Gruyter, 2010), 43.
[9] Klueting, 'Die gesetzlichen Regelungen der nationalsozialistischen Reichsregierung', 98.
[10] Closmann, 'Legalizing a Volksgemeinschaft', 27.
[11] Original quote: „Der Angriff auf die deutsche Natur und Landschaft, wie er heute in größtem Maßstab durch den Arbeitsdienst, die Arbeitsbeschaffung, die Forderung der Ernährung aus eigener Scholle, den Straßen- und Wasserbau zur Förderung des Verkehrs, die Aufrüstung, die Landsiedlung, […] die Erzeugung möglichst vieler Rohstoffe, eingeleitet ist, geht weit über die Kultivierungsarbeiten Friedrichs des Großen hinaus und kann höchstens mit den großen Rodungen des Mittelalters verglichen werden." Hans Schwenkel, 1937, cited from, Klueting, 'Die gesetzlichen Regelungen der nationalsozialistischen Reichsregierung', 98-99.
[12] J. Scherner, 'Preparing for the Next Blockade: Non-ferrous Metals and the Strategic Economic Policy of the Third Reich', The English Historical Review, 137 (2022), 475–512.
[13] Chad B. Denton, Metal to Munitions: Requistions and Resentment in Wartime France, Diss. (2009), 184.
[14] Denton, 'Metal to Munitions', 186.
[15] Ibd., 191.
[16] J. Scherner, 'Lernen und Lernversagen: Die „Metallmobilisierung" im Deutschen Reich 1939 bis 1945', Vierteljahrshefte für Zeitgeschichte, 66 (2018), 233–266.
[17] Digital exhibition by the Bistumsmuseum Regensburg, titled "75 Jahre Kriegsende in Regensburg," available at: https://www.bistumsmuseen-regensburg.de.
[18] H. Weber, 'Nazi German waste recovery and the vision of a circular economy: The case of waste paper and rags', Business History, 64 (2022), 882–903, here 894-895.
[19] Ibd., 895.
[20] P. Thorsheim, Waste into Weapons: Recycling in Britain during the Second World War (Cambridge: Cambridge University Press, 2015), 15.
[21] Denton, 'Metal to Munitions', 102-172.
[22] H.O. Frøland, 'Besatzungswirtschaft in Nordeuropa: Norwegen und Dänemark' in Marcel Boldorf and Jonas Scherner (eds), Handbuch Wirtschaft im Nationalsozialismus (Oldenbourg: De Gryter, 2023), 793–818, here 793.

[23] R. Bohn, Reichskommissariat Norwegen: Nationalsoyialistische Neuordnung und Kriegswirtschaft (München: Oldenbourg, 2000), 383.
[24] Frøland, 'Besatzungswirtschaft in Nordeuropa: Norwegen und Dänemark', 806-807. On the role of the Rohstoffverwaltungstellen, see, Bohn, 'Reichskommissariat Norwegen', 150.
[25] C. Myrvang, Troskap og Flid: Kongsberg Våpenfabrikks historie, 1814-1945 (Oslo: Pax Forlag, 2014), 609.
[26] Notice issued by the Territorial Commander (Territorialer Befehlshaber) of Eastern Norway, 10 November 1942, subject: Wehrmacht-Kleinbedarfsscheine für Eisen und NE-Metalle, RA-RAFA-5826/G/L0006/0019, Riksarkivet Oslo.
[27] Directive from the Army High Command of Norway ("Armeeoberkomando", dated June 23, 1942, regarding the "Conduct of Scrap Metal Collections by the Troops" ("Durchführung von Altmetallsammlungen durch die Truppe" signed by the Chief of the General Staff ("Chef des Generalstabs"), RA-RAFA-5826/G/L0006/0019, Riksarkivet Oslo.
[28] B. S. Kjetil, Nazifisering, kollaborasjon, motstand: En analyse av Politidepartementet og Forsyningsdepartementet (Næringsdepartementet), 25. september 1940 - 8. mai 1945, Diss (Oslo, 2016), 224–30.
[29] Original quote: "Die deutsche Rüstungsindustrie hat einen riesigen Bedarf an Rohstoffen, vor allem an Eisen und Metallen. [...] Jede Tonne Eisen hilft Waffen schmieden und Bombenschäden beseitigen." Note (copy) from the Army High Command of Norway ("Armeeoberkommando Norwegen"), signed by Captain ("Hauptmann") Falkenhorst, 11 October 1943, RA-RAFA-5826/G/L0006/0019, Riksarkivet Oslo.
[30] Note (copy) from the Army High Command of Norway ("Armeeoberkommando Norwegen"), signed by Captain ("Hauptmann") Falkenhorst, 11 October 1943, RA-RAFA-5826/G/L0006/0019, Riksarkivet Oslo.
[31] T. Heimen Gundersen, Mellom sivil- og militær produksjon: Raufoss Ammunisjonsfabrikker under den tyske okkupasjonen av Norge 1940-1945, Masteroppgave (2024), 1.
[32] Letter Raufoss Ammunisjonsfabrikk to Norges Metallsentral, Oslo, 27. June 1944; letter Raufoss Ammunisjonsfabrikk to Norges Metallzentral, 17. August 1944, subject «messingavall»; Riksarkivet Oslo, RA-S-1611/D/L0011/0011.
[33] File note, May 26, 1943, titled "Scrapping of 4 c. flank parts at the State Norwegian Munitions Factory Raufoss" ("Verschrottung von 4 c. Flankteilen b. D. Staatll. Norw. Munitionsfabrik Raufoss"); Letter "Beauftragten der Deutschen Wehrmacht" at the Kongsberg Arms Factory to the „Oberkommando des Heeres", Berlin, May 31, 1943, RA-RAFA-5836/D/L0008/0004, Riksarkivet Oslo.
[34] Note from the Wehrmacht Commander in Norway, addressed, among others, to the German Wehrmacht representatives at the Kongsberg Arms Factory and the Raufoss Amunisjonsfabrikk, subject: Metallmobilisierung, 16. December 1942, RA-RAFA-2197/D/Dn/L0176/0006, Riksarkivet Oslo.
[35] Witness statement by Raufoss Amunisjonsfabrikk, dated 26 April 1946, concerning steel cartridge-case copper during the occupation; memorandum of the Norwegian Ministry of Defence, Oslo, 29 May 1946, titled "Kassasjon av stålhylsekopper for 6,5 mm ammunisjon", Raufoss Arkivet RA EC-3 WW2.
[36] Raymond G. Stokes, Roman Köster and Stephen C. Sambrook, The Business of Waste: Great Britain and Germany, 1945 to the present (New York: Cambridge University Press, 2013), 107–09.