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‘Lab Rats for Science’: Uranium Mining, Expellees, Public Health, and Narratives of Radiation Danger in Cold War West Germany, 1955–1968

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In 1955–6, three thousand German-speaking men were ‘repatriated’ from Czechoslovak forced labour camps, where they mined uranium, to West Germany, where they demanded benefits for health damage from radiation exposure. These men connected their group’s experiences to the fears and developments of early Cold War West Germany, personifying the health risks of the Atomic Age and citizens’ demands that their states offer protection from such risks. These men contributed to public awareness of radiation health risk and to ambivalence about safe ‘peaceful nuclear technology’ in the late 1950s and 1960s, earlier than is usually assumed. They further inspired concrete policy changes, especially in occupational health protection, illustrating that post-war responses to nuclear technology emerged from the intersection of longer historical experience, specialised local knowledge and grassroots activism, as well as from post-war scientific and political developments. It further shows long-lasting expellee influence in unexpected areas of West German policy.

Along with the victims of Hiroshima and the fishermen of Bikini, we are crucial ‘lab rats’ for science. We, our families, our people (*Volk*) and all of humanity should be protected from radiation damage.¹

So wrote Karl Cuno in the December 1957 issue of *Der Joachimsthaler*, a newsletter that he and Peter-Paul Ullmann founded for former political prisoners from the Czechoslovak uranium mines living in West Germany. Cuno and Ullmann were among some 3,000 men who had worked in the mines after the post-war Czechoslovak People’s courts sentenced them to forced labour for collaboration with Nazi Germany.² They called themselves ‘Joachimsthalers’ after the Czechoslovak city of Jáchymov/Joachimsthal, known since the nineteenth century as the centre of Bohemian, and later Czechoslovak uranium mining.

The Joachimsthalers were simultaneously vestiges of the Nazi era and unwilling frontline participants in the post-war Atomic Age. Most had been German-speaking Czechoslovaks before the Munich invasion of 1938, and many had served in the Nazi administration of the Sudetenland and the Czechoslovak Protectorate, been members of the Gestapo, or were otherwise connected to the National Socialist regime.³ Czechoslovakia ‘returned’ them to West Germany as German ‘late repatriates’ (*Spätheimkehrer*) in late 1955 and early 1956.

¹ Newsletter 14 Dec. 1957, BayHStA, SdA: *Joachimsthaler* 45, 3.

² *Ibid.*, 2.

³ Benjamin Frommer, *National Cleansing: Retribution against Nazi Collaborators in Postwar Czechoslovakia* (New York: Cambridge University Press, 2005), 243–53; For a study of the conditions of prisoners in the mines after the Second World War, see: František Bártík, *Tábor Vojna ve světle vzpomínek bývalých vězňů* (Prague: Vyšehrad, 2008).

Sick and disillusioned, these men arrived in the Federal Republic during the Economic Miracle, years after most refugees and returnees had recovered from postwar upheavals.⁴ Despite the language of ‘return’, they were in an unfamiliar country, faced with a new political system, and struggling to find an economic foothold. They initially had trouble finding work and getting access to state benefits. And they were bitter to find that although they considered themselves patriots who had suffered for the German Fatherland, many West Germans were either indifferent or treated them as politically tainted by their Nazi connections and postwar imprisonment.⁵ The Joachimsthalers joined POW and refugee organisations such as the Union of Returnees (*Verband der Heimkehrer*) and the Sudeten German Homeland Union (*Sudetendeutscher Heimatbund*). Yet their experience differed from that of those groups in important ways. Their position as ex-political prisoners rather than POWs or regular expellees sometimes made West German officials question their rights to compensation⁶ The leaders of this group – Karl Cuno, Peter-Paul Ullmann, and the former prison-camp physician, Dr. Karl Girschek – also argued that the ex-uranium miners were different from other expellees, POWs, and former political prisoners, pointing – above all – to their forced exposure to uranium.

The Joachimsthalers argued that the radiation exposure they had experienced as prisoners had damaged their health irreparably. Even calling themselves, and their newsletter, *Der Joachimsthaler* emphasised uranium mining as the group’s defining experience. Not only had they been incarcerated in Jachýmov/Joachimsthal, but the city had been associated with uranium since the eighteenth century and with nuclear radiation since the late nineteenth century. Further, as the quote from Cuno demonstrates, they argued that their predicament as radiation victims illustrated the broader danger of a new Atomic Age in which physicians, public health officials, politicians, and the public remained ignorant of radiation’s threat to human health even as exposure was proliferating. The Joachimsthalers asserted that they had insights into the Atomic Age that most West Germans lacked. And they framed those in terms of the local Cold War: as issues of immediate consequence to ordinary West Germans.

The Joachimsthalers seem unlikely heralds of atomic danger. A small group of men with close ties to Nazism and highly specialised health concerns appear, at first glance, improbable champions of public health reform and far less politically important than the millions of expellees who had arrived a decade earlier, the thousands of POWs returning from the Soviet Union in 1955, or the international experts debating nuclear technology’s benefits and risks. Yet these ex-miners played an important role in the early Federal Republic, raising awareness of radiation risk, inspiring medical research, and shaping occupational health regulation, especially in mining. Although their advocacy reached its peak in the late 1950s, it served as a catalyst for medical research, policy debates, and occupational health legislation that continued through the 1960s.

The Joachimsthalers’ story illustrates the complex ways in which collective narratives about health and health risks develop in modern societies. West Germans’ perceptions of radiation danger were indisputably shaped by international scientific research and Cold War politics. But the actors and stories that convinced ordinary citizens that radiation posed a real danger to public health in the Federal Republic were often closer to home.⁷ The Joachimsthalers’ claims resonated because they connected pre-war regional knowledge about miners’ illnesses, post-war experiences of incarceration and uranium mining, and the concrete health concerns of a new global Atomic Age. They offered alarming

⁴ Newsletter May 1957, BayHStA, SdA: *Joachimsthaler* 45, 5. Many Germans found the post-war period disorienting, but most had adapted by the time the Joachimsthalers faced the same challenges in the mid-1950s. Frank Biess, *German Angst: Fear and Democracy in the Federal Republic of Germany* (Oxford: Oxford University Press, 2020), 28.

⁵ Newsletter May 1957, BayHStA, SdA: *Joachimsthaler* 45, 1, 5.

⁶ West Germans sometimes saw Sudeten German expellees, and especially those associated with Nazi crimes, as undeserving of compensation. Michael L. Hughes, *Shouldering the Burdens of Defeat: West Germany and the Reconstruction of Social Justice* (Chapel Hill: University of North Carolina Press, 1999), 100.

⁷ Stephen Milder makes a similar argument that scholars have downplayed local concerns in their analyses of anti-nuclear power protests in the 1970s. Stephen Milder, *Greening Democracy: The Anti-Nuclear Movement and Political Environmentalism in West Germany and Beyond, 1968–1983* (New York: Cambridge University Press, 2017), 9.

answers to seemingly abstract questions about radiation's promise, danger, and immediacy in West Germans' daily lives, thereby serving as catalysts to scientific research and regulatory action.

This story also underlines the fact that West Germans' understandings of radiation were far more complicated in the early Cold War period than the often-repeated juxtaposition of the dangers of atomic weapons against the promise of 'peaceful' nuclear technologies. Debates about radiation in the 1950s and early 1960s were grounded in historical experiences dating back to the Nazi, Weimar, and even imperial periods, and West Germans confronted the idea of peacetime radiation danger earlier and more broadly than is usually assumed. A number of interest groups drew on that half century of experience to make environmental exposure, consumer protections and, in the case of the Joachimsthalers, occupational safety, part of public discussion about nuclear radiation's impact on human health well before the anti-nuclear power movement of the 1970s. As a result, although the positive promise of nuclear technology had real resonance in the 1950s and 1960s, West German officials and atomic researchers struggled to fully convince the West German public, press, and even physicians that there was a clear separation between 'safe' civilian nuclear technology and the danger of atomic weapons. And such scepticism about 'peaceful' nuclear technology extended beyond the issue of nuclear power.⁸ Growing numbers of 'counter-experts', such as the Joachimsthaler Karl Girschek, highlighted tensions between safety claims and past collective experience, emerging evidence of radiation risk in civilian settings, and even the regulatory requirements of new international authorities such as Euratom. In the process, they challenged the compartmentalisation of knowledge about radiation, drawing connections among areas traditionally treated as separate, including pre-war radiation health research, nuclear weapons, mining safety, and public health broadly defined. But the Joachimsthalers also struggled to fully convince state officials, medical professionals, or the general public either that they were radiation victims or to reject the Atomic Age outright. Rather, they joined others in sowing seeds of doubt about state and expert claims of clear-cut radiation safety while inspiring a search for better information and regulation.

Finally, the Joachimsthalers demonstrate that expellees and their experiences outside Cold War West Germany shaped the Federal Republic beyond international relations and specifically 'expellee' issues or even what expellees themselves intended. Expellees' varied experience of the Second World War and its aftermath meant that subgroups such as the Joachimsthalers brought distinct insights and demands to the Federal Republic.

The Joachimsthalers and the Atomic Age

The Joachimsthalers did not set out to be political actors or regulatory reformers. Cuno and Ullmann were explicit that the group was not a formal association (*Verein*), but a social network that used the newsletter and occasional social gatherings to maintain ties, share information, and advocate for what they understood to be their rights as ex-prisoners, as men who had (in their view) suffered for the Fatherland and as citizens of the Federal Republic.⁹ Nor was this unusual. After the Federal Republic was established in 1949, millions of expellee 'new citizens' were quick to form both social groups and formal organisations that lobbied for government support.¹⁰ Sudeten Germans¹¹ in the

⁸ Some scholars have noted popular distrust of nuclear power in the 1950s, but show it dissipating in the 1960s. Scholarship has paid little attention to ongoing public discussion of other nuclear issues such as occupational exposure. Dominick, *The Environmental Movement in Germany*, 165–6.

⁹ Letter from Erich Blackert, May 1957 newsletter, BayHStA SdA: *Joachimsthaler* 45. Newsletters played a crucial role in organising communities of Sudeten German expellees in the Federal Republic and were instrumental in shaping their readers' opinions on a variety of issues. Yuliya Komska, *The Icon Curtain: The Cold War's Quiet Border* (Chicago: University of Chicago Press, 2015), 16.

¹⁰ Robert G. Moeller, *War Stories: The Search for a Usable Past in the Federal Republic of Germany* (Los Angeles: University of California Press, 2001), 30.

¹¹ I use Sudeten German here to refer to German-speakers from Czechoslovakia who adopted the term as a political and cultural category in the twentieth century, and especially in post-1945 West Germany.

early Federal Republic established a plethora of newsletters named for their pre-expulsion hometowns and regions and used those to maintain regional identities in exile, to sustain social contacts, and to shape opinion about a variety of social, cultural, and political issues. Their gatherings often evoked nostalgia for a lost *Heimat*, but were also associated with demands for territorial revision of the German-Czechoslovak borderlands.¹²

Although their style of organisation was similar to that of other Sudeten German expellees, the Joachimsthalers' choice to ground their collective identity in the post-war experience of Czechoslovak uranium mining focused their demands on West German domestic rather than international policy, put them on a collision course with the Federal Republic's nuclear aspirations, and raised the stakes on their requests for help in ways different from many of their Sudeten German compatriots. The Joachimsthalers' arrival in the Federal Republic coincided with West German independence from the post-war occupation forces and the launch of its postwar atomic program in 1955. The Western Allies had banned Germans in the Western Zones of Occupation from owning or using nuclear materials in 1945, and occupation authorities had seized radioactive material from German businesses, research facilities, and medical institutions.¹³ At the same time, the United States, the United Kingdom, and France all launched civilian nuclear programmes by the mid-1950s, embracing nuclear technology as a key to post-war peace, national sovereignty, and economic prosperity.¹⁴ Although those countries initially revelled in maintaining nuclear monopolies, the Cold War made atomic technology an attractive diplomatic tool.¹⁵ The United States launched its 'Atoms for Peace' programme in 1953 to gin up support for non-military uses of nuclear technology at home and abroad, including in the Federal Republic.¹⁶ By the mid-1950s, the deepening Cold War prompted the Western Allies to integrate the Federal Republic into the Western camp, an effort that included easing post-war restrictions, including those on nuclear technology and research.¹⁷ The Adenauer administration responded eagerly, launching a 'peaceful' nuclear programme that they hoped would both deliver economic prosperity and secure the country's independence and status in the Cold War 'West'.¹⁸ The Adenauer government's effort built on Weimar and Nazi-era German atomic research, reenlisting Werner Heisenberg and Otto Hahn, among others. Thus 1955 has been considered a time of atomic 'euphoria' in which nuclear scientists, politicians, and popular media promised West Germans that 'peaceful atoms' could raise West Germans' standard of living by transforming energy production, agriculture, and medicine.¹⁹

¹² Komska, *The Icon Curtain*, 16; Moeller, *War Stories*, 35.

¹³ Bernd-A. Rusinek, "Kernenergie, schöner Götterfunken!" Die "umgekehrte Demontage" Zur Kontextgeschichte der Atomeuphorie', *Kultur und Technik* 17, no. 4 (1993): 15–16; Wolfgang D. Müller, *Geschichte der Kernenergie in der Bundesrepublik Deutschland* (Stuttgart: Schäffer, 1990), 635–49; Michael Eckert, 'Die Anfänge der Atompolitik in der Bundesrepublik Deutschland', *Vierteljahrshefte für Zeitgeschichte* 37, no. 1 (1989): 117–18.

¹⁴ Joachim Radkau and Lothar Hahn, *Aufstieg und Fall der deutschen Atomwirtschaft* (Munich: Oekom, 2013), 57–8, 71–3, 111; Gabrielle Hecht, *The Radiance of France: Nuclear Power and National Identity after World War II* (Cambridge, MA: MIT Press, 1998).

¹⁵ Angela N. H. Creager, *The Life Atomic: A History of Radioisotopes in Science and Medicine* (Chicago: University of Chicago Press, 2013), 108–9.

¹⁶ Many West Germans responded positively to the 'Atoms for Peace' message. See: Exhibition visitor comments, United States National Archives (NA), RG306, A1 1005, Box 7 Folder HICOG 208; British atomic scientists launched a similar information campaign in the United Kingdom in the late 1940s, stressing the promise of peaceful atomic technologies. Christoph Laucht, 'Atoms for the People: The Atomic Scientists' Association, the British State and Nuclear Education in the Atom Train Exhibition, 1947–1948', *The British Journal for the History of Science* 45, no. 4 (2012): 591–608.

¹⁷ Michael Eckert, 'Primacy Doomed to Failure: Heisenberg's Role as Scientific Advisor for Nuclear Policy in the FRG', *Historical Studies in the Physical and Biological Sciences* 21 (1990): 37–8.

¹⁸ Radkau and Hahn, *Aufstieg und Fall*, 110–12; Gabrielle Hecht, *The Radiance of France: Nuclear Power and National Identity after World War II* (Cambridge, MA: MIT Press, 2009); R. Schulten, 'Atome für den Frieden', *Die Zeit* 1 Sept. 1955.

¹⁹ Radkau and Hahn, *Aufstieg und Fall*, 56–8; Ilona Stölken-Fitschen, *Atom bombe und Geistesgeschichte: Eine Studie der fünfzig Jahre aus deutscher Sicht* (Baden-Baden: Nomos Verlagsgesellschaft, 1995), 155–9, 166–79; Augustine, *Taking on Technocracy*, 21–30.

West German nuclear advocates considered the Joachimsthalers and others who warned that all nuclear technology was dangerous Cassandras who threatened the country's stability and prosperity. Government officials worried that public panic about radioactive fallout from American and Soviet weapons testing could destabilise domestic politics and the Federal Republic's international position in the Cold War.²⁰ Nor were their concerns completely baseless. In 1957 and 1958 the 'Fight the Atomic Death' movement mobilised scientists and ordinary citizens in mass protests.²¹ But the Joachimsthalers were different from other nuclear nay-sayers. They were more numerous than nuclear scientists and nuclear medical professionals, some of whom had health damage from exposure, and many of whom still promoted civilian nuclear technology and radiation medicine. And though fewer in number than popular protesters in 1958, the Joachimsthalers could claim lived experience with nuclear health risk which most other concerned civilians could not.

The Joachimsthalers were not the only ex-uranium miners in West Germany. Between 1946 and the early 1950s, a larger number of people had made their way to the Federal Republic after working in the Soviet-run 'Wismut' uranium mines in East Germany.²² Those Wismut miners, though often not willing workers, were generally not prisoners, and had usually spent shorter periods as uranium miners and had more varied backgrounds and experiences than their Czechoslovak counterparts.²³ As a result, they did not develop a group identity in West Germany, nor do they seem to have made common cause with the Joachimsthalers, though some were included in the later medical studies of ex-uranium miners started in response to the Joachimsthalers' demands for research, medical treatment, and compensation for radiation health damage.

Karl Girschek and the Campaign for Recognition

The Joachimsthalers' focus on radiation as a communal health threat emerged from the work of one man: Dr. Karl Girschek. A native of Opava (Troppau) in northern Bohemia, Girschek was a physician, an early adherent of right-wing German nationalism, and a eugenicist, a combination that helped him become director of the Troppau Psychiatric Sanatorium in 1938 after Nazi Germany's annexation of the Czechoslovak borderlands.²⁴ During the Nazi occupation he established the Sudeten German Centre for Genetics in Troppau, founded the Troppau chapter of the German Society for Racial Hygiene, and was involved in Nazi mass sterilisation and child euthanasia programmes.²⁵ He was arrested in November 1945 after the liberation of Czechoslovakia, tried by a Czechoslovak People's Court in 1946, and given a life sentence of hard labour. He served six years of that sentence as the camp doctor in the Jachýmuv uranium mines.²⁶ In late 1955, Czechoslovakia released him, along

²⁰ Frank Biess, 'The Concept of Panic: Military Psychiatry and Emotional Preparation for Nuclear War in Postwar West Germany', in *Science and Emotions after 1945: A Transatlantic Perspective*, eds. Frank Biess and Daniel M. Gross (Chicago: University of Chicago Press, 2014), 182; Rolf-Jürgen Gleitsmann and Günter Oetzel, *Fortschrittsfeinde im Atomzeitalter?* (Berlin: Verlag für Geschichte der Naturwissenschaften und der Technik), 25–6; Caitlin E. Murdock, 'Public Health in a Radioactive Age: Environmental Pollution, Popular Therapies, and Narratives of Danger in the Federal Republic of Germany, 1949–1970', *Central European History* 52, no. 1 (2019): 54.

²¹ Hans Karl Rupp, *Ausserparlamentarische Opposition in der Ära Adenauer: Der Kampf gegen die Atombewaffnung in der fünfziger Jahren* (Köln: Pahl-Rugenstein Verlag, 1970).

²² Tens of thousands fled West to avoid Wismut. Reiner Karlsch and Zbynek Zeman, *Urangheimnisse: Das Erzgebirge im Brennpunkt der Weltpolitik 1933–1960* (Berlin: Ch. Links Verlag, 2007), 169–71.

²³ Caitlin E. Murdock, 'A Gulag in the Erzgebirge? Forced Labor, Political Legitimacy, and Eastern German Uranium Mining in the Early Cold War, 1946–1949', *Central European History* 47, no. 4 (2014): 791–821.

²⁴ René Grumlik and Michal Šimůnek, 'Karl Girschek (1898–1992): Arzt, National(sozial)ist, Anstaltsleiter', in *Transporte in den Tod. Die Ermordung von Patienten aus dem Regierungsbezirk Troppau (Reichsgau Sudetenland) in der 'Euthanasie' Anstalt Pirna-Sonnenstein 1940/41*. eds. Boris Böhm and Julius Scharnetzky (Pirna: Kuratorium Gedenkstätte Sonnenstein e.V., 2010), 117–19.

²⁵ Girschek later argued he was not involved in euthanasia, but he did staff the effort. Grumlik and Šimůnek, 'Karl Girschek', 120, 122–23.

²⁶ *Ibid.*, 124.

with most remaining ethnic German political prisoners, to the Federal Republic, where he settled in Bavaria and resumed medical practice.²⁷

Girschek knew that miners from Jáchymov and the nearby Saxon city of Schneeberg suffered from high rates of lung cancer before he was sent to mine uranium.²⁸ Paracelsus (Theophrastus von Hohenheim) and Georgius Agricola first described a ‘mountain disease’ common among Erzgebirge miners in the sixteenth century, making miners’ high rates of lung problems and early mortality, already established in folk wisdom, part of regional mining and medical lore.²⁹ In 1879, the physicians Friedrich Härting and Walther Hesse identified the malady, by then popularly known as the Joachimsthal or Schneeberg illness, as a lung cancer in one of the earliest epidemiological studies of cancer and occupational disease.³⁰ Between the 1880s and 1920s, further studies detailed the nature of the cancer, and led the German and Czechoslovak governments to recognise it as an occupational illness in 1925 and 1926 respectively.³¹ The disease, and occupational measures needed to protect miners, were the subject of research and repeated parliamentary and public debate in Czechoslovakia between 1928 and 1938.³² Although radon exposure was first proven to be the cause of the cancer in the 1950s, some researchers and medical professionals had already suggested that the cancer might be linked to the high levels of nuclear radiation in the Erzgebirge mines in the 1920s.³³

Girschek drew on regional knowledge of the Joachimsthal illness, on medical literature familiar to physicians from the Saxon and Czechoslovak borderlands, and on his position as the Jáchymov prison camp doctor, to observe how uranium mining affected prisoners’ health. In 1955, he arrived in West Germany convinced that his fellow miners faced extraordinary health problems because of their radiation exposure. But after a year and a half spent trying to interest West German public health officials in the Joachimsthalers’ situation and its implications for atomic-era West Germany, Girschek grew frustrated. In September 1957 he wrote in the newsletter: ‘I can’t say there is no [official] interest, but people focus on the size and cost of the task . . . and are unfortunately not convinced that the dangers and urgency are great enough to justify such effort.’³⁴ Undeterred, he launched a campaign to win government recognition, healthcare, scientific attention, and social welfare benefits for the Joachimsthal uranium miners and to inform West Germans of the danger he argued that nuclear radiation posed to human health.

Girschek began by lobbying government officials and educating the Joachimsthalers themselves. He produced a booklet about radiation health damage among the Joachimsthal uranium miners, grounding his own observations and data from the Joachimsthal prison camp in the history of the Schneeberg/Joachimsthal illness and the existing medical literature.³⁵ Part medical treatise and part personal testimony, it made the case that radiation health damage should be taken seriously and that the Joachimsthalers needed special medical attention.³⁶ He suggested three steps to achieve

²⁷ *Ibid.*, 125.

²⁸ The same lung ailment was typically referred to as the ‘Joachimsthal illness’ in Bohemia and the ‘Schneeberg illness’ in Germany.

²⁹ Paracelsus, ‘On the Miners’ Sickness and other Miners’ Diseases’, George Rosen transl. in *Four Treatises of Theophrastus von Hohenheim called Paracelsus*, ed. Henry Sigerist (Baltimore: Johns Hopkins University Press, 1941), 43–126; Georgius Agricola, *De Re Metallica*, Herbert Hoover and Lou Hoover transl. (New York: Dover Publications, 1950), 214.

³⁰ F. H. Härting and W. Hesse, ‘Der Lungenkrebs, die Bergkrankheit in den Schneeberger Gruben’, *Vierteljahresschrift für gerichtliche Medizin* 31 (1879): 102–32, 313–37.

³¹ August Pirchan and H. Šikl, ‘Cancer of the Lung in the Miners of Jáchymov (Joachimsthal)’, *The American Journal of Cancer* 16, no. 4 (1932): 681.

³² H. Mašová and E. Tešínská, ‘Science in the Service of Occupational Health: The Case of the Commission for “Miner’s Disease of Jáchymov” in the Inter-war Czechoslovakia’, *The Prague Medical Report* 107, no. 4 (2006): 449–50, 453.

³³ Mašová and Tešínská, ‘Science in the Service of Occupational Health’, 454; Julius Löwy, ‘Über die Joachimsthaler Bergkrankheit’, *Medizinische Klinik* 25 (1929): 142; On the 1950s, see: Walter Jacobi, ‘The History of the Radon Problem in Mines and Homes’, *Annals of the ICRP* 23, no. 2 (1993): 41.

³⁴ Girschek article, Sept. 1957, BayHStA, SdA: *Joachimsthaler* 45, 6.

³⁵ Karl Girschek, ‘Strahlenschäden bei im Uranbergbau eingesetzten Gefangenen’, BayHStA, SdA, *Joachimsthaler* 9.

³⁶ *Ibid.*

this: compile a list of ex-miners, set up annual medical exams at a research facility, and treat those diagnosed with radiation damage.³⁷

In fall 1957 he took his message to a wider audience, giving a talk to physicians interested in returnees' health problems,³⁸ and publishing essays in *Der Heimkehrer*, the Union of Returnees' (*Verband der Heimkehrer*; VdH) monthly publication, and in a series of volumes the VdH published about the health effects of wartime imprisonment.³⁹ In November 1957, Girschek gave a public press conference sponsored by the VdH – the Joachimsthalers' first large-scale effort to engage the West German public as a whole.⁴⁰ In doing so, he and the Joachimsthalers joined expellee, environmental, and anti-nuclear activists in using West Germany's free press to build popular consensus and push for political action in the late 1950s.⁴¹

The Joachimsthalers welcomed Girschek's efforts. Cuno opened the January 1958 newsletter by arguing 'if we stick together, we can support our comrade Dr. Girschek in his struggle. He speaks for all of us . . . in demanding the most modern medical attention.'⁴² Ferdinand Pokorny wrote, 'our comrade Dr. Karl Girschek . . . like St George, fearlessly takes on the smug bureaucratic dragon.'⁴³ And in June 1958, the newsletter identified its three primary goals: to uphold the comradeship (*Kamaradschaft*) among fellow ex-prisoners, to support comrades in need, and to promote Dr. Girschek's efforts.⁴⁴

Girschek's central message to comrades, government officials, and the West German public alike was that nuclear radiation was indisputably dangerous. He asserted that the medical literature and his own observations left no doubt that chronic radiation exposure was often deadly. And he argued that there was an urgent need for further research to understand and combat those dangers.

In the late 1950s, pictures of radiation victims from Hiroshima and Nagasaki were still recent memories for West Germans, yet the idea that nuclear radiation endangered human health competed in the popular imagination with an earlier consensus that radiation was a valuable health aid, with pre-war narratives about the economic promise of nuclear technology, and with the 'peaceful' atomic boosterism of the 1950s. Between 1908 and the 1930s, Central Europeans had embraced radioactive therapies ranging from the inhalation of radon-rich air in spas, to home therapies such as radioactive drinking water and compresses. Such therapies remained in wide use in the 1950s.⁴⁵ That early enthusiasm had also spurred research into the biological effects of radiation, including work on using radiation to promote agricultural production and food safety.⁴⁶ In contrast, although there had been extensive research into the Schneeberg/Joachimsthal illness in the 1920s and 1930s, its connection to radiation, and specifically to radon exposure, was not yet fully accepted or understood by the West German medical community. Girschek tackled claims that miners' radiation exposure was either benign or, as spas had long claimed, actually beneficial, head on in *Der Heimkehrer*, the newspaper of the Union of Returnees, 'I want to stress that during my six years in the camp, I observed no positive [health] effects of the work in our uranium mine . . . not a single improvement.' Indeed, he argued, after two years of

³⁷ Letter from Karl Girschek to Horst Köppel, 11 Feb. 1956, BayHStA, MArb 2559.

³⁸ Newsletter, Sept. 1957, BayHStA, SdA: *Joachimsthaler* 45, 8.

³⁹ Girschek article in *ibid.*, 2–7; Karl Girschek, 'Strahlenschäden bei im Uranbergbau eingesetzten Gefangenen', in *Extreme Lebensverhältnisse und ihre Folgen. Handbuch der ärztlichen Erfahrungen aus der Gefangenschaft* (Band II), eds. Wolfgang von Nathusius and Ernst Günther Schenck (Bad Godensberg: Verband der Heimkehrer 1958), 3–32; Karl Girschek, 'Strahlenschäden bei Kriegsgefangenen im Uranbergbau', in *Extreme Lebensverhältnisse und ihre Folgen. Handbuch der ärztlichen Erfahrungen aus der Gefangenschaft* (Band 7), eds. Wolfgang von Nathusius and Ernst Günther Schenck (Bad Godensberg: Verband der Heimkehrer, 1959), 300–7.

⁴⁰ Newsletter 12 Nov. 1957, BayHStA, SdA: *Joachimsthaler* 45, 1.

⁴¹ Moeller, *War Stories*, 54; Dominick, *The Environmental Movement in Germany*, 164.

⁴² Newsletter 31 Jan. 1958, BayHStA, SdA: *Joachimsthaler* 45, 1.

⁴³ Newsletter 25 Apr. 1958, BayHStA, SdA: *Joachimsthaler* 45, 5.

⁴⁴ Newsletter 20 June 1958, BayHStA, SdA: *Joachimsthaler* 45, 3.

⁴⁵ Murdock, 'Public Health', 59; Angela Creager argues that Hiroshima and Nagasaki did not immediately undermine enthusiasm for radiation treatments in the United States either. Creager, *The Life Atomic*, 143.

⁴⁶ Karin Zachmann, 'Peaceful Atoms in Agriculture and Food: How the Politics of the Cold War Shaped Agricultural Research Using Isotopes and Radiation in Post-War Divided Germany', *Dynamis* 35, no. 2 (2015): 310.

underground work, ‘blooming, well-nourished vigorous men . . . began to decline physically’, noting that, ‘in advanced cases, these people were no longer recognizable’.⁴⁷

Girschek argued that screening all former Czechoslovak and East German uranium miners annually for radiation damage and creating a national database of the results was a moral and a scientific imperative for West Germany. He asserted that it was unacceptable for the country to simply stand by and watch ‘men who were finally released from years of imprisonment succumb to an excruciating death through lung cancer’.⁴⁸ But he also made the case that screening promised critical insights into radiation health dangers just as West Germany – and humanity – was rushing ‘headlong into the atomic age’. ‘It is not just the fates of these comrades. It is a one-time opportunity . . . to use this tragic event . . . to research the development of radioactive exposure into lung carcinoma and to thereby understand the full process of carcinogenesis.’⁴⁹ Girschek jumped into an intensifying national debate about the implications of nuclear technology for the Federal Republic. Despite the atomic boosterism of the mid-1950s, most West Germans were not ‘euphoric’.⁵⁰ Indeed, atomic enthusiasm soon collided with scepticism, critique, and even ‘atomic psychosis’.⁵¹

By the time Girschek took his message to the press in 1957, he joined a chorus of public figures warning of nuclear danger. Yet critics were divided over the nature and extent of that danger.⁵² Most officials and experts focused on the risks of nuclear weapons but treated ‘peaceful’ atomic technology as benign or even desirable. But the belief that nuclear power also posed a serious threat was beginning to spread among West Germans in the late 1950s.⁵³

Girschek took an even broader view than most, asserting that Germans needed to understand the dangers of radiation exposure precisely because they were living in an increasingly radioactive world with many possible sources of exposure. He argued that uranium miners proved both that radiation health damage was already a reality in West Germany and that the international experts who denied it did not understand how radiation affected human health.⁵⁴ He argued, ‘Here are – unfortunately – thousands of people, who, through their direct contact with radioactive materials have become living examples of the effects of internal radiation exposure. Scientific study of them would allow us to assess rapidly growing dangers to the human world.’⁵⁵

Initial Responses

The Joachimsthalers hoped the November 1957 press conference would propel them off the sidelines of West German debate.⁵⁶ As Karl Cuno wrote:

perhaps [it] will convince the press that returnees’ fates affect the whole Volk. [The media is full of] sensational stories [and] . . . pictures of the Sputnik dogs . . . but doesn’t spare a line for us. One reads daily arguments [about whether there is risk of] radiation damage, but no one mentions that there are people among us who [could help] science [answer this question].⁵⁷

⁴⁷ Newsletter 25 Sept. 1957, BayHStA, SdA: *Joachimsthaler* 45, 3.

⁴⁸ *Ibid.*, 5.

⁴⁹ *Ibid.*

⁵⁰ Radkau and Hahn, *Aufstieg und Fall*, 56–8, 68.

⁵¹ Murdock, ‘Public Health’, 51–4.

⁵² Frank Biess, “‘Everybody Has a Chance’: Nuclear Angst, Civil Defense, and the History of Emotions in Postwar West Germany”, *German History* 27, no. 2 (2009): 224; Mark Cioc, *Pax Atomica: The Nuclear Defense Debate in West Germany during the Adenauer Era* (New York: Columbia University Press, 1988), 29–30.

⁵³ Raymond Dominick, *The Environmental Movement in Germany: Prophets and Pioneers, 1871–1971* (Bloomington: Indiana University Press, 1992), 165; Gleitsmann and Oetzel, *Fortschrittsfeinde im Atomzeitalter*.

⁵⁴ Girschek article Sept. 1957, BayHStA, SdA: *Joachimsthaler* 45, 6; Girschek was in the minority, but not alone in suggesting that radiation was a bigger problem. ‘Das Leben der Menschen wird “radioaktiv”’, *Passauer Neue Presse*, 6 Mar. 1957.

⁵⁵ Girschek article Sept. 1957, BayHStA, SdA: *Joachimsthaler* 45, 6.

⁵⁶ Newsletter May 1957, BayHStA, SdA: *Joachimsthaler* 45, 4; Newsletter 20 Sept. 1957, BayHStA, SdA: *Joachimsthaler* 45, 1; Newsletter, 25 Sept. 1957, BayHStA, SdA: *Joachimsthaler* 45, 1.

⁵⁷ Newsletter 12 Nov. 1957, BayHStA, SdA: *Joachimsthaler* 45, 2.

The press conference succeeded in attracting attention. In the days that followed, newspapers across the country ran such headlines as: ‘The first uranium-contaminated are among us’, ‘Death in the Uranium mines’, and ‘Joachimsthal – a gigantic Katyn’.⁵⁸

The Joachimsthalers used the press to build public awareness and to pressure government, health, and scientific authorities to recognise their claims.⁵⁹ But winning official support continued to be an uphill battle.⁶⁰ As Cuno wrote in the newsletter:

people . . . don’t like to talk about radiation risk . . . [this is true at both] the federal or the state level in the Federal Republic . . . there are even scientists who don’t want to hear our demands . . . [or who] want to thwart them.⁶¹

West German political officials resisted claims about radiation danger because they worried that citizens’ fears of nuclear war and of fallout from nuclear testing were creating ‘atomic psychosis’ that could undermine plans for a nuclear programme and the economic prosperity and international status they hoped would come with it.⁶² Conservative politicians and newspapers claimed that the Soviets were sowing such ‘psychosis’ to thwart political stability and nuclear technology in Western Europe and that open discussion of nuclear risk aided their efforts.⁶³ Even Bavarian officials sympathetic to Girschek’s message asked him to keep quiet to avoid raising public panic about radiation.⁶⁴ After the press conference, Girschek reported: ‘the push-back began immediately’, as officials in multiple German states insisted that the Joachimsthalers’ claims were not supported by evidence.⁶⁵ As Girschek related, ‘[the Rhineland Pfalz Ministry] said that public health offices have carried out exams and found no physical damage [from radiation]’.⁶⁶ Indeed, ex-miners frequently reported that doctors and public health officials downplayed claims of radiation damage, sending them away without a diagnosis, or with diagnoses of ‘normal’ consequences of postwar incarceration, a congenital condition, or old age.⁶⁷ The postwar West German medical establishment generally treated health as a personal rather than state concern, and focused public health efforts on acute communicable diseases.⁶⁸ It frequently dismissed a wide range of physical and psychological health complaints common among returnees as ‘*anlagebedingt*’ or congenital, rather than direct results of war, displacement, or incarceration.⁶⁹ Such diagnoses not

⁵⁸ The newsletter detailed headlines from thirty different newspapers across the Federal Republic. Newsletter 14 Dec. 1957, BayHStA, SdA: *Joachimsthaler* 45, 1.

⁵⁹ Newsletter 31 Jan. 1958, BayHStA, SdA: *Joachimsthaler* 45, 2.

⁶⁰ Newsletter 14 Dec. 1957, BayHStA, SdA: *Joachimsthaler* 45, 2; Letter to Prof. W. Heisenberg 19 Nov. 1958; Letter from Karl Cuno to Edwin Leverenz US Army 9 Feb. 1958, BayHStA, SdA *Joachimsthaler* 1; Newsletter 27 Aug. 1958, BayHStA, SdA: *Joachimsthaler* 45, 3.

⁶¹ Newsletter 31 Jan. 1958, BayHStA, SdA: *Joachimsthaler* 45, 1; such resistance was common in the United States as well. Augustine, *Taking on Technocracy*, 77.

⁶² Murdock, ‘Public Health’, 53; Popular fears of atomic war were also thought to be contributing to ‘atomic psychosis’. Biess, *German Angst*, 108.

⁶³ ‘Eine verfehlt Alternative’, *Passauer Neue Presse* 12 Apr. 1958, 2.

⁶⁴ Letter Dr. Koetzing Bundesministerium für Arbeit und Sozialordnung (BM Arbeit u. Sozial) to Dr. Girschek, 20 Dec. 1957, BayHStA, MArb. 2559.

⁶⁵ Newsletter 14 Dec. 1957, BayHStA, SdA: *Joachimsthaler* 45, 2. They mentioned that there were several such state efforts to discredit them. Newsletter 31 Jan. 1958, BayHStA, SdA: *Joachimsthaler* 45, 7.

⁶⁶ *Ibid.*

⁶⁷ Newsletter 25 Sept. 1957, BayHStA, SdA: *Joachimsthaler* 45, 1; Newsletter 31 Jan. 1958, BayHStA, SdA: *Joachimsthaler* 45, 7–8, 13, 21, 23; Informationsdienst 31 Jan. 1958, BayHStA, SdA: *Joachimsthaler* 45, 2; Newsletter 20 May 1958, BayHStA, SdA: *Joachimsthaler* 45, 4; Newsletter 20 June 1958, BayHStA, SdA: *Joachimsthaler* 45, 2; Newsletter 10 Oct. 1958, BayHStA, SdA: *Joachimsthaler* 45, 5; Newsletter 12 Dec. 1959, BayHStA, SdA: *Joachimsthaler* 46, 12; Newsletter Jan. 1960, BayHStA, SdA: *Joachimsthaler* 46, 15.

⁶⁸ Ulrike Lindner, *Gesundheitspolitik in der Nachkriegszeit: Grossbritannien und die Bundesrepublik Deutschland im Vergleich* (Munich: R. Oldenbourg Verlag, 2004), 17, 68.

⁶⁹ Svenja Goltermann, ‘Gewalt und Trauma: zur Verwandlung psychiatrischen Wissens in Ost- und Westdeutschland seit dem Zweiten Weltkrieg’, in *Abweichung und Normalität. Psychiatrie in Deutschland vom Kaiserreich bis zur Deutschen Einheit*, eds. Christine Wolters et al. (Bielefeld: Transcript Verlag, 2014), 292.

only failed to acknowledge Joachimsthalers', and other returnees', suffering as part of a collective German postwar experience – they also denied them much-needed government support.

The Joachimsthalers had the added problem that radiation damage was especially hard to prove. Epidemiological data showed that nuclear radiation caused serious health problems, but the damage often took years to appear. That delay was problematic for people claiming benefits for wartime damage, since in the late 1950s, West German law offered compensation only for damage linked clearly to the war.⁷⁰ The more time passed, the more tenuous that connection appeared. Further, even when patients were ill, it was often hard to prove that the illnesses were the direct result of radiation exposure for which ex-miners were requesting compensation and treatment, rather than of poor general conditions in the mines.⁷¹ Finally, even those illnesses known to be linked to radiation exposure – such as lung cancer – had other potential causes, such as smoking, making it hard to draw indisputable causal links to radiation in individual patients. Returnees suspected that the government made the most of ambiguities in pathogenesis to avoid paying benefits for wartime damage.⁷²

Even doctors sympathetic to the Joachimsthalers often insisted that they knew too little about radiation damage to diagnose it.⁷³ Such reluctance to wade into the issue was doubtless shaped by the West German medical profession's overall reluctance to engage in debates about radiation health risks, which they considered political.⁷⁴ But lack of information also played a part. Scientists were still divided over what, if any, levels of radiation exposure were safe.⁷⁵ There were still no diagnostic norms for identifying radiation damage, so doctors were ill equipped to identify individual cases with certainty. Further, many West German physicians were unaware of the epidemiological studies that showed that nuclear radiation was an occupational health risk, especially in mining. Such studies, and health problems, were common knowledge among physicians and ordinary citizens in northern Czechoslovakia and the southern German Democratic Republic, where mining in uranium rich areas had long been associated with lung cancer and early mortality. The same regional studies were being used by international atomic agencies, including the US Atomic Energy Commission, to assess radiation risk from radon and to set standards for exposure in late 1950s.⁷⁶ Consequently, the Joachimsthalers were surprised and frustrated to discover that this specialised regional knowledge of miners' illnesses, and its recognition in international atomic circles, did not extend to the general West German medical profession. Familiarity with the miners' illness also made people from the Erzgebirge region more likely than other West Germans to associate various ailments with radiation regardless of whether the pre-war medical literature showed a correlation. As ex-miner Eugen R. told the Federal Ministry for Expellees, DPs, and War Invalids, West German doctors had dismissed his Reynaud's syndrome as congenital, yet: 'a large number of my comrades from the uranium mines had the same symptoms . . . over there [in Czechoslovakia] every physician knows that this kind of damage is associated with uranium. . . . But here no one has heard of the association.'⁷⁷

Girschek addressed the diagnostic problems, saying 'this [lack of evidence] comes as no surprise to me, or to anyone familiar with radiation damage . . . and it does not mean that there is no damage. . . . We must resist attempts to downplay the danger and convince the public that everything possible is

⁷⁰ Ibid., 286–7.

⁷¹ Otto Böss, 'Deutsche Kriegsgefangene im Uranbergbau vom Sank Joachimsthal (Jachymov) 1945–1950', *Bohemia* 13, no. 1 (1972): 394–5.

⁷² Newsletter 16 Dec. 1958, BayHStA, SdA: *Joachimsthaler* 45, 9.

⁷³ Letter from H. Ehert to Bundesministerium für Vertriebene 12 Dec. 1956, BA Koblenz B149/2521.

⁷⁴ 'Ärzte und Atome', *Die Zeit*, 4 July 1957.

⁷⁵ Creager, *The Life Atomic*, 160–70. Even US atomic researchers remained divided over what levels of exposure were safe and actively hid evidence that low level exposures could be dangerous between the mid 1940s and the 1960s. Kate Brown, *Plutopia: Nuclear Families, Atomic Cities, and the Great Soviet and American Plutonium Disasters* (New York: Oxford University Press, 2013), 65–7, 247–54.

⁷⁶ Letter from M. Eisenbud to Czechoslovak Committee for Atomic Energy 22 Dec. 1955, NA, RG 59, A1 3008-A, Box 484; Catherine Caufield, *Multiple Exposures: Chronicle of the Radiation Age* (New York: Perennial Library, 1989), 80–81.

⁷⁷ Eugen Richter to Bundesmin. f. Vertriebene 3 Dec. 1956, BA Koblenz B149/2520.

being done to protect our people.⁷⁸ Or, as the newsletter editors put it: ‘if people don’t want to listen to us . . . we’ll just have to use a loudspeaker’.⁷⁹

Finding the right ‘loudspeaker’ was as much about strategy as volume. The Joachimsthalers recognised that most politicians, government officials, and even physicians knew little about radiation illnesses or the science of radiation.⁸⁰ But they hoped that atomic scientists would support their claims. In the 1950s, some of those scientists had become household names in West Germany. They could lend scientific authority to the Joachimsthalers’ claims, and many knew colleagues who had suffered or died from radiation exposure, giving them reason to recognise that nuclear radiation posed health risks.⁸¹ The Joachimsthalers were therefore particularly frustrated at being brushed off by such leading nuclear scientists. As the newsletter argued:

The scientists research and debate about when radiation . . . is damaging. . . . But what do Prof. Heisenberg and Prof Hahn know about us? . . . as the spiritual authors of our forced labor in the uranium mines, they should really take an interest in us. Both as research subjects and personally. . . . They have warned against nuclear bombs . . . what do they want to do about us?⁸²

But perhaps the ex-miners should not have been surprised. Werner Heisenberg and Otto Hahn were among the ‘Göttingen 18’ who warned against West Germany embracing nuclear weapons in 1957, but Heisenberg was also a driving force behind rebuilding civilian nuclear research.⁸³ He further acted as a scientific expert and government collaborator to downplay nuclear risk and assure the public that civilian nuclear technology was a safe and essential element of modernity.⁸⁴ For most nuclear researchers, new technology remained more compelling than potential health effects.

The Joachimsthalers responded to being sidelined by government officials and recognised experts by working to establish Dr. Girschek as a public authority on radiation health risk.⁸⁵ Their chief ally and platform for this effort was the Union of Returnees (VdH). The VdH was already lobbying the West German government to recognise returnee and POW illnesses and provide state benefits for its ailing constituents. When the West German medical establishment had proven reluctant to diagnose many returnees’ illnesses as war related, thus denying them government benefits, the VdH responded by creating their own network of some 2,000 physicians.⁸⁶ In the 1950s they held medical

⁷⁸ Newsletter 14 Dec. 1957, BayHStA, SdA: *Joachimsthaler* 45, 2.

⁷⁹ Newsletter 31 Jan. 1958, BayHStA, SdA: *Joachimsthaler* 45, 7.

⁸⁰ Newsletter 27 Aug. 1958, BayHStA, SdA: *Joachimsthaler* 45, 4.

⁸¹ Reports of nuclear scientists falling ill from occupational exposure emerged in the 1930s. ‘Der Tod Frau Curies’, *Neues Wiener Tageblatt*, 5 July 1934; ‘Radiumforscher Professor Fernau – Opfer der Wissenschaft’, *Neues Wiener Journal* (13 Sept. 1934). Radiation scientists had been slow to take health risks seriously, yet were already confronting evidence of dangers in lab exposure by the 1920s. Maria Rentetzi, *Trafficking Materials and Gendered Experimental Practices: Radium Research in Early Twentieth Century Vienna* (New York: Columbia University Press, 2008), 45–7; Maria Rentetzi, ‘Determining Nuclear Fingerprints; Glove Boxes, Radiation Protection and the International Atomic Energy Agency’, *Endeavor* 41, no. 2 (2017): 41.

⁸² Newsletter 27 Aug. 1958, BayHStA, SdA: *Joachimsthaler* 45, 2.

⁸³ Eckert, ‘Die Anfänge der Atompolitik in der Bundesrepublik Deutschland’, 120–26; Cathryn Carson, ‘Nuclear Energy Development in Postwar West Germany: Struggles over Cooperation in the Federal Republic’s First Reactor Station’, *History and Technology* 18, no. 3 (2002): 237–9.

⁸⁴ ‘Atomkraft und Kraftbier’, *Die Zeit*, 27 Oct. 1955; Cathryn Carson, *Heisenberg in the Atomic Age: Science and the Public Sphere* (New York: Cambridge University Press, 2010), 225–26; Stölken-Fitschen, *Atombombe*, 110.

⁸⁵ Dolores Augustine has described the emergence of ‘counterexperts’ who shaped West German debates about nuclear energy in the 1970s by offering scientific critiques of the political/scientific consensus that it was safe. Girschek and the Joachimsthalers used the same strategy in the late 1950s. Dolores Augustine, *Taking on Technocracy: Nuclear Power in Germany, 1945 to the Present* (New York: Berghahn, 2021), 74.

⁸⁶ Goltermann, ‘Gewalt und Trauma’, 292; Letter Verband der Heimkehrer to Bundesminister der Arbeit, 3 Mar. 1955, BA Koblenz, B149/2431; Dr. Gladewitz Notizen über den Heimkehrerkongress, 24 Sept. 1955, BA Koblenz, B149/2431.

conferences and published research about health problems common among returnees and POWs.⁸⁷ In doing so, they helped to build a counter-narrative and a body of research documenting a variety of health problems that continued to plague their members. This effort made the VdH and the Joachimsthalsers natural allies. VdH conferences and publications gave Girschek a platform from which to spread his message about radiation damage and to claim status as a radiation health expert.⁸⁸ The VdH added radiation illness to their catalogue of returnee health problems and promoted Girschek as an expert, appointed him a liaison to the Bavarian government to discuss radiation health damage, and sponsored the Joachimsthalsers' 1957 press conference in which Girschek outlined the Joachimsthalsers' story and calls for help.⁸⁹

The Joachimsthalsers' push to win government help and raise awareness of radiation health risks also reflected a shift in popular opinion in the 1950s and 1960s as West Germans began to embrace an expanded vision of state involvement in public health as part of the higher postwar standard of living in West Germany that the Western bloc had promised them. Worries about pollution and new technologies, including nuclear ones, led West Germans to think about health as a human right and collective commitment, and to demand that their governments protect it through environmental measures, occupational safety regulations, or even, as the Joachimsthalsers suggested, new scientific research.⁹⁰

The Joachimsthalsers were thus in sync with many other West Germans when they argued that the state should take an active role in protecting citizens' health from environmental and occupational hazards.⁹¹ They insisted that West German promotion of 'peaceful' atomic technology, including nuclear power, whitewashed the dangers of this rapidly expanding technology. And they believed that state, scientific, and medical communities had a responsibility to educate themselves about the science of radiation risk and to pursue research that would address the many gaps in understanding it.⁹² Finally, they argued that authorities should be honest in their communication with the public, rather than acknowledging radiation risk in some contexts while ignoring it in others. As newsletter subscriber Herbert Scholz wrote:

It is unbelievable that so-called educated people go along with the scientists' radiation dance, which has made the whole population uneasy . . . bureaucrats declare there is 'no sign of radiation damage' among forced uranium miners. How ludicrous to claim that a negligible rise in atmospheric radioactivity is deadly for human biology, and at the same time claim that people who spent six years with exposures thousands of times stronger . . . are undamaged. If our scientists wanted to produce more objective research and less propaganda, they would find us, and all the descendants of Joachimsthal miners killed by the 'Bergkrankheit',⁹³ a rich research subject. They wouldn't have to speculate about how the effects of radioactivity on the tsetse fly might relate to humans.⁹⁴

⁸⁷ Wolf von Nathusius, 'Heimkehrer und die Rehabilitation: Probleme der Sozialmedizin', *Sozialer Fortschritt* 6, no. 10 (1957): 235; Ernst Schenk and Wolfgang von Nathusius, *Extreme Lebensverhältnisse und Ihre Folgen* (Bd. 1) (Bad Godesberg: Verband d. Heimkehrer, Kriegsgefangenen u. Vermissten-Angehörigen Deutschlands e.V., 1958). The VdH published multiple volumes of *Extreme Lebensverhältnisse* over several years; Goltermann, 'Gewalt und Trauma', 292.

⁸⁸ Karl Girschek, 'Strahlenschäden bei Kriegsgefangenen im Uranbergbau', *Extreme Lebensverhältnisse und Ihre Folgen* Bd. 7, eds. Wolfgang von Nathusius and Ernst Günther Schenk (Bad Godesberg: Verband d. Heimkehrer, Kriegsgefangenen u. Vermissten-Angehörigen Deutschlands e.V., 1959), 300–7; Newsletter 20 June 1958, BayHStA, SdA: *Joachimsthaler* 45, 5; *Kongress für Pathologie, Therapie und Begutachtung der Heimkehrerkrankheiten*, Oct. 1961, BA Koblenz, B149/2431.

⁸⁹ Letter Dr. Nathusius (Verband der Heimkehrer) to Bayrischen Staatsminister für Arbeit 17 Dec. 1956, BayHStA, MArb. 2559.; Girschek article Sept. 1957. 'Dem Atom-Mord Einhalt gebieten', BayHStA, SdA: *Joachimsthaler* 45.

⁹⁰ Sandra Chaney, *The Nature of the Miracle Years* (New York: Berghahn Books, 2012), 118.

⁹¹ Newsletter 10 Oct. 1958, BayHStA, SdA: *Joachimsthaler* 45, 1; Newsletter 1 Aug. 1959, BayHStA, SdA: *Joachimsthaler* 46, 6.

⁹² 'Untersuchung auf radioactive Schäden', 25 Apr. 1958, BayHStA, SdA: *Joachimsthaler* 45; Newsletter Jan. 1960, BayHStA, SdA: *Joachimsthaler* 46, 15.

⁹³ Another colloquial name for the radiation-induced lung cancer associated with miners in the Schneeberg and Joachimsthal uranium mining areas.

⁹⁴ Newsletter 16 Dec. 1958, BayHStA, SdA: *Joachimsthaler* 45, 9.

Advocacy and Action

Did the Joachimsthalers' efforts have an effect? Some scholars have argued that although West German politicians used social policy and strategic expellee political appointments to win expellees' political support, expellee demands had little actual impact on government policy.⁹⁵ Certainly expellee calls for postwar territorial revision did not gain international traction. West Germany incorporated some such claims into its official international platform to win expellee political support at home, but did not press the issue with reluctant allies abroad.⁹⁶ Similarly, discussion of early West German nuclear policy often emphasises international players such as the United States and Euratom, or the political and scientific elites of the Adenauer era rather than ordinary German citizens.⁹⁷ But other historians have shown that 'new citizens' played an important role in shaping aspects of the West German social contract and domestic policy related to core 'expellee' issues in the 1950s.⁹⁸ Further, the Joachimsthalers demonstrate that in some cases, 'new citizens' shaped domestic policy well beyond the scope of what were considered expellee issues. Their demands, advocacy, and organisation influenced radiation health research and occupational health regulation in the Federal Republic. The Joachimsthalers succeeded in drawing attention to occupational radiation dangers by cultivating allies among researchers and policy makers, by promoting their own medical expert, and by making themselves into research and policy subjects. Yet these ex-miners failed to achieve what they most wanted: clear confirmation that they were victims of nuclear radiation.

The Joachimsthalers found many of their best domestic policy allies among other expellees who had established themselves in West Germany as politicians. Their earliest and probably most important support emerged in Bavaria among conservative politicians, many of whom were themselves Sudeten Germans or advocates for Sudeten German interests. The ex-miners settled disproportionately in Bavaria, which was already home to the largest Sudeten German population in West Germany. And they benefitted from political connections between expellees and the Bavarian government, which had begun collaborating with the Sudeten German Homeland Association (*Sudetendeutsche Landsmannschaft*) in the 1950s as they too worked to win government support.⁹⁹ The Bavarian Landtag representative Franz Gaksch pressed the ex-miners' claims in the state legislature and in the press as early as 1956. A former Sudeten German journalist, Gaksch had been a member of the Sudeten German party in Czechoslovakia, and an expellee. He had been elected to the Bavarian Landtag in 1954 and became a leader of the CSU's Union of Expellees (*Union der Vertriebenen*).¹⁰⁰

The Joachimsthalers' single most important political ally was Bavarian Minister of Labour Walter Stain. A Sudeten German and a former Nazi party member whose portfolio included refugee and expellee affairs, Stain was the first West German politician to order systematic investigation of Dr. Girschek's claims that ex-miners suffered from radiation damage. In 1956, he directed the State Institute for Occupational Medicine (*Landesinstitut für Arbeitsmedizin*) to search the Bavarian

⁹⁵ Pertti Ahonen, *After the Expulsion: West Germany and Eastern Europe 1945–1990* (New York: Oxford University Press, 2003), 56, 58, 67, 80, 96; Matthias Stickler, 'Ostdeutsch heisst Gesamtdeutsch': *Organisation, Selbstverständnis und Zielsetzungen der deutschen Vertriebenenverbände 1949–1972* (Düsseldorf: Droste Verlag, 2004), 431.

⁹⁶ Moeller, *War Stories*, 35–6.

⁹⁷ Cioc, *Pax Atomica*; Eckert, 'Die Anfänge der Atompolitik in der Bundesrepublik Deutschland', 115–44.

⁹⁸ Gilad Margalit contests the view of expellees as passive subjects of government manipulation in relation to foreign policy. Gilad Margalit, 'The Foreign Policy of the German Sudeten Council and Hans-Christoph Seebohm, 1956–1964', *Central European History* 43, no. 3 (2010): 464, 483; Similarly, Birgit Schwellung finds that the VdH was critical to advancing domestic legislation dealing with returnees. Birgit Schwellung, *Heimkehr-Erinnerung-Integration. Der Verband der Heimkehrer, die ehemaligen Kriegsgefangenen und die westdeutsche Nachkriegsgesellschaft* (Munich: Ferdinand Schöningh, 2010), 233; Moeller, *War Stories*, 47–8.

⁹⁹ K. Erik Franzen, *Der vierte Stamm Bayerns. Die Schirmherrschaft über die Sudetendeutschen 1954–1974* (Munich: R. Oldenbourg Verlag, 2010), 169–71, 186–7, 192.

¹⁰⁰ 'So Geht es nicht', *Bayern Kurier* 20 Oct. 1959, 'Urankrankheit droht Heimkehrern', *Nürnburger Nachrichten* 16 Oct. 1956, BayHStA, MArb 2559.

Social Services Agency (*Versorgungsamt*) records for evidence of radiation health damage among people whom the Soviets and Czechoslovaks had used as forced labour. Although prompted by the Joachimsthalers' demands, investigators expanded their search beyond ex-Czechoslovak uranium miners to include people who had worked with radiation in Soviet laboratories or had mined uranium in East Germany.¹⁰¹ In 1957, Stain ordered the Bavarian Social Services Agency to report all returnees who had worked in uranium mines to the State Institute for Occupational Medicine to be screened for radiation damage.¹⁰²

By late 1957, Bavaria had compiled an initial list of 200 ex-miners and, recognising that radiation damage can take decades to result in symptomatic illness, had committed to screening them annually for the foreseeable future.¹⁰³ Bavarian officials credited Girschek for inspiring their efforts, yet their goals were different from those of the Joachimsthalers. Stain and the officials organising health screening sought to determine *whether* ex-miners suffered from radiation damage and wanted to control claims to expertise on the subject, not least because they, in contrast to the Joachimsthalers, supported developing nuclear energy.¹⁰⁴ They also wanted to determine whether such damage, were it confirmed, could help them assess radiation risk for people in other occupations with radiation exposure. They were more focused on drawing conclusions than on tracking and treating every ex-miner. By 1959, Bavaria had expanded its screening for occupational radiation exposures to include hundreds of people with other kinds of occupational radiation exposure, including x-ray technicians and people working in nuclear reactors.¹⁰⁵

Girschek, on the other hand, remained adamant that the damage was done, the risk indisputable, and that the government needed to identify, protect, and compensate the victims. Bavarian Labour Ministry officials, including Stain, were discomfited by Girschek's turn to the media. They tried to sideline him from their investigations, assuring him that the scientific inquiry was in expert hands and offering to brief him on the results if he agreed to keep discussion of radiation danger out of the public eye, where it was likely, they suggested, to create 'unnecessary unease'.¹⁰⁶ Further, as Walter Stain pointed out in 1958, although the ministry had jumped on Girschek's warnings, they had not yet found evidence of radiation damage, making public discussion premature.¹⁰⁷ Girschek responded that the absence of positive diagnoses in no way undermined his claims, since radiation damage was slow to produce symptomatic illness. He agreed to curtail his media contact in order to keep Bavarian government support, but chafed at restrictions that, in his view, shortchanged his comrades.¹⁰⁸

In the autumn of 1957, the Federal Labour Ministry, following Bavaria's example, launched a national survey of ex-miners of uranium in order to identify people with potential radiation damage

¹⁰¹ Newsletter 10 Oct. 1958, BayHStA, SdA: *Joachimsthaler* 45, 2; Labour Ministry memo 'Zum Aufsatz "Die ersten Uranverseuchten"', Nov. 1957, BayHStA, MArb 2559; Bayer. Landesinstitute für Arbeitsmedizin to Bayr. Staatsministerium für Arbeit und soziale Fürsorge 28 Oct. 1957, BayHStA, MArb 2559, 1. The record review found ninety-nine miners from Joachimsthal and two ex-Soviet lab workers; See also, Dr. Zimmer to Staatsministerium für Arbeit und soziale Fürsorge 6 July 1962, BayHStA, MArb 2559.

¹⁰² Newsletter 20 Sept. 1957, BayHStA, SdA: *Joachimsthaler* 45, 3.

¹⁰³ Bayer. Landesinstitute für Arbeitsmedizin to Bayr. Staatsministerium für Arbeit und soziale Fürsorge 8 Nov. 1957, BayHStA, MArb 2559; Koetzing to Girschek 20 Dec. 1957, BayHStA, MArb 2559.

¹⁰⁴ Girschek letter to Stain 31 Mar. 1958, BayHStA, MArb 2559; Dantscher letter to Girschek 3 Jan. 1959, BayHStA, MArb 2559; Mark S. Milosch, *Modernizing Bavaria: The Politics of Franz Josef Strauss and the CSU, 1949–1969* (New York: Berghahn Books, 2006), 52–4.

¹⁰⁵ Newsletter 25 May 1959, BayHStA, SdA: *Joachimsthaler* 46, 4–5.

¹⁰⁶ Labour Ministry memo 'Zum Aufsatz, Die ersten Uranverseuchten...', Nov. 1957, BayHStA, MArb 2559; Girschek letter to Stain 31 Mar. 1958, BayHStA, MArb 2559; Koetzing letter to Girschek 20 Dec. 1957, BayHStA, MArb 2559; Stain letter to Girschek 25 Feb. 1958, BayHStA, MArb 2559; In the 1950s, the West German government worked to silence a number of scientists raising concerns about radiation health risk. See: Augustine, *Taking on Technocracy*, 79.

¹⁰⁷ Stain letter to Girschek 25 Feb. 1958, BayHStA, MArb 2559.

¹⁰⁸ Girschek letter to Stain 31 Mar. 1958, BayHStA, MArb 2559.

for annual medical screening.¹⁰⁹ The Joachimsthalers took the lead on identifying ex-miners.¹¹⁰ Thanks in part to their efforts, by October 1958, the Federal Ministry of Labour had contact and survey information for some 2,000 men who had worked in uranium mines in Czechoslovakia and the German Democratic Republic.¹¹¹

The federal government delegated the screening to the states, and between 1959 and 1962, state social service agencies (*Versorgungsäämter*) and university research institutes across the country began evaluating ex-miners for radiation damage.¹¹² The government decision to screen all former uranium miners shifted the tone some doctors and officials took with these men. In October 1958, Eugen Richter wrote to *Der Joachimsthaler* that social service offices were taking the issue more seriously.¹¹³ Mass government screening helped legitimise the Joachimsthalers' concerns about radiation risk in the eyes of medical professionals and government officials. Yet the goal of confirming that these men had suffered radiation damage remained elusive. As of 1962, the federal screening programme had diagnosed only five people with radiation damage and was keeping nine more under observation, hardly the sweeping validation the Joachimsthalers wanted.¹¹⁴ And that pattern continued. Throughout the decade, officials coordinating the screening offered mixed assessments of why there were so few diagnoses of radiation illness. Many noted that they had cases that could not be clearly linked to radiation but were also not proven to be unrelated.¹¹⁵ By 1968, some expressed relief at the limited number of diagnoses. Dr. Lincke, of the Berlin Social Services office, hit a common note when he reported: 'Our investigations . . . have helped calm initial fears . . . about radiation damage'.¹¹⁶

Public health investigators had not uncovered a tsunami of disease. But neither did they dismiss outright the idea that radiation exposure might have negative health effects. Ex-miners did have higher rates of cancer than the general population.¹¹⁷ Further, as late as 1968, several public health officials noted that although the Joachimsthalers had been tracked for a decade, the lung cancers associated with Erzgebirge miners had often been identified fifteen or more years after exposure. So it was still possible that there would be new diagnoses.¹¹⁸ Nevertheless, discussions of extending the time between exams from one year to three and debates about how long tracking should continue showed that the effort was winding down by 1969.¹¹⁹

The Joachimsthalers' campaign to be recognised as radiation victims also slowed by the late 1960s. The group's newsletter still circulated and radiation damage remained a theme, but it appeared less

¹⁰⁹ Girschek article Sept. 1957, BayHStA, SdA: *Joachimsthaler* 45, 6; For examples, see: BA Koblenz B149/2520 and BA Koblenz B149/2521; National efforts were modelled on the Bavarian example.

¹¹⁰ Newsletter 25 Sept. 1957, BayHStA, SdA: *Joachimsthaler* 45.

¹¹¹ Newsletter 31 Jan. 1958, BayHStA, SdA: *Joachimsthaler* 45, 13, 25; Newsletter Apr. 1958, BayHStA, SdA: *Joachimsthaler* 45, np; Letter from Dr. Koetzing, Bundesministerium für Arbeit und Sozialordnung to P. Hundgebur, Deutscher Gewerkschaftsbund, 6 Oct. 1958, BA Koblenz B149/2517, 141. In 1968 the Bavarian Institute for Labour Medicine noted that the Joachimsthalers had been critical to identifying uranium miners for medical tracking. Landesinstitut für Arbeitsmedizin to Bayer. Staatsministerium für Arbeit und soziale Fürsorge 20 Sept. 1968, BayHStA, MArb 11, 1.

¹¹² Newsletter 25 May 1959, BayHStA, SdA: *Joachimsthaler* 46, 6, 16; Newsletter 10 Oct. 1959, BayHStA, SdA: *Joachimsthaler* 46, 10, 27; Newsletter 12 Dec. 1959, BayHStA, SdA: *Joachimsthaler* 46, 9; Report from Dr. Zimmer (Regierungsmedezinalrat) to Bayr. MArb 6 July 1962, BayHStA, MArb 2559.

¹¹³ Newsletter 10 Oct. 1958, BayHStA, SdA: *Joachimsthaler* 45, 8.

¹¹⁴ Letter and table from Dr. Schönleiter, 12 Dec. 1962, BayHStA, MArb 11. Results continued in this vein through the decade. BA Koblenz B149 28708.

¹¹⁵ Dr. Zimmer to Bavarian Ministry of Labour, 20 Sept. 1968, BA Koblenz B149 28708.

¹¹⁶ Letter from the Versorgungsärztliche Untersuchungsstelle Berlin, 12 Aug. 1968, BA Koblenz B149 28708. Dr. Merz in Mainz expressed similar relief at the lack of positive diagnoses. Letter from the Versorgungsärztliche Untersuchungsstelle Mainz, 5 Sept. 1968, BA Koblenz B149 28708.

¹¹⁷ Dr. Zimmer letter to Bavarian Ministry of Labour 20 Sept. 1968, BA Koblenz B149 28708.

¹¹⁸ Letter from the Versorgungsärztliche Untersuchungsstelle, Mainz 5 Sept. 1968, BA Koblenz B149 28708; Dr. Rawer to Versorgungsamt Neunkirchen 15 Dec. 1966, BA Koblenz B149 28708, 13–14.

¹¹⁹ Letter from Dr. Goetz to Dr. Rauschelbach, BM Arbeit 20 Dec. 1968, BA Koblenz B149 28708; Letter from Dr. Dietze Versorgungsärztliche Untersuchungsstelle Neumünster, 18 Sept. 1968, BA Koblenz B149 28708.

often than it once had.¹²⁰ Some ex-miners had died. Some had given up on health tracking in disgust as years of testing yielded no definitive results.¹²¹ And many had no doubt shifted their attention to their new lives in West Germany. But their insistence on being studied set research projects and policy questions in motion that continued to develop years after the Joachimsthalers' direct advocacy had ended, shaping West German radiation health policy and especially regulation of occupational radiation exposure.

A New Era of Radiation Health Policy and Politics

The 1960s saw a cascade of changes in West German approaches to radiation health risk. In 1960, the First Radiation Protection Law set limits for occupational exposures and established insurance protections for people with workplace radiation damage.¹²² International developments played a critical role in this legislation. Many of the law's measures were required as part of West Germany's membership in Euratom, the international organisation established in 1957 to coordinate Western European development of nuclear energy. They also reflected occupational exposure limits recommended by the International Commission on Radiological Protection (ICRP) in the 1950s.¹²³ But the new laws and responses to them were further shaped by the West German public's rising awareness of radiation exposure and the mass popular protests against nuclear technology that erupted in 1957 and 1958.¹²⁴

The Joachimsthalers thus added distinctive elements to a larger public debate about radiation risk.¹²⁵ Their focus on occupational exposure broadened the discussion beyond weapons, fallout, and nuclear energy and challenged politicians' and scientists' assertions that 'peaceful' nuclear technology was safe. Further, as Girschek had argued, the Joachimsthalers' bodies and their insistence on medical screening offered scientists and public health officials a unique opportunity to learn more about radiation's health effects.

In the 1960s, the Joachimsthalers served as both subjects of and inspiration for research into radiation health effects by entities including the Bavarian State Institute for Occupational Medicine, the Society for Radiation Research in Munich, the Institute for Biophysics at the University of the Saarland, Euratom, and the Max Planck Institute for Biophysics.¹²⁶ They were also used as a comparison population for early studies of damage from Thorotrast, a radioactive contrast agent used between the 1920s and the 1950s.¹²⁷ Finally, the Joachimsthalers' example, some radiation experts' pre-war experience in Erzgebirge mines, the discovery of uranium deposits in the Schwarzwald, and data from international researchers prompted radiation scientists and the West German Miners' Professional Association (*Bergbau Berufsgenossenschaft*) to investigate radon as an occupational health risk in other kinds of mining (especially coal) and to advocate mitigating radon exposure in all mines

¹²⁰ Newsletters from 1967–9, BayHStA, SdA *Joachimsthaler* 49.

¹²¹ Newsletter Mar. 1962, BayHStA, SdA: *Joachimsthaler* 47, 17.

¹²² 'Erste Verordnung über den Schutz vor Schäden durch Strahlen radioaktiver Stoffe Vom 24 Juni 1960', *Bundesgesetzblatt* Jg 1960, Teil I. 430–52.

¹²³ J. Samuel Walker, *Permissible Dose: A History of Radiation Protection in the Twentieth Century* (Berkeley: University of California Press, 2000), 12; Caufield, *Multiple Exposures*, 64–74, 134–9.

¹²⁴ Cioc, *Pax Atomica*, 72–91; Dominick, *The Environmental Movement in Germany*, 141–2, 157–8, 160–69, 187; Murdock, 'Public Health in a Radioactive Age', 51–3.

¹²⁵ *Ibid.*

¹²⁶ Horst Frenzel, 'Die Strahlenbelastung von Bergleuten in den Oberpfälzischen Flussspatgruben und von Kriegsgefangenen in Joachimsthaler Urbanbergbau' (PhD diss., University of Munich, 1969); Letter from Landesversorgungsamt Hessen to Ministerium für Arbeit Hessen, 12 Dec. 1961, BA Koblenz B149/28707; F. Wendt and A. Preussler, *Zur Diagnose von Strahlenspät Schäden der haemopoetischen Organe infolge beruflich bedingter chronischer Strahlenbelastung* (Brüssel: EURATOM, 1966); Versorgungsarzt Dr. Zahnert, Research report for 1967/1968, 21 Feb. 1968, BA Koblenz B149/28708, 8.

¹²⁷ Dr. Reinhold Zahnert, 'Organschäden bei Personen mit Thorotrastinkorporation und bei Uranbergwerksarbeitern im Versorgungsbereich Baden-Württemberg', *Der Medizinische Sachverständige* 231, no. 10 (Oct. 1967): 231–6 and Nov. 1967, BA Koblenz B149/28708, 261–5.

by requiring better ventilation, drainage, and dust control.¹²⁸ Whereas doctors evaluating individual miners were often reluctant to confirm radiation damage, epidemiologists were more willing to treat the ex-miners collectively, as evidence of a need for radiation health protection or to use their example as a jumping off place for new research.

Politicians also began to connect the Joachimsthalers' story to broader questions about radiation health risks and potential policy responses. In 1960, members of the Bundestag from the Free Democratic Party (FDP) submitted a parliamentary question asking the federal government whether medical screenings of uranium miners offered insight into whether radioactive fallout posed a significant public health threat.¹²⁹ Although the Ministry of Labour insisted there was no connection between the issues, the questioning prompted it to convene a meeting of the public health officials screening ex-miners in order to share information, coordinate the effort, and finally establish a shared screening protocol.¹³⁰ Further, in 1961 and 1962, the government passed new legislation that transformed the Joachimsthalers from a postwar expellee problem to a group of citizens with rights protected by West German labour and social welfare law. In 1962, the Ministry of Labour informed the states that former uranium miners were to get medical attention regardless of whether they qualified as having suffered wartime damage and that occupational illnesses (*Berufskrankheiten*) would be covered by accident insurance.¹³¹ Beginning in 1963, the states began to coordinate their efforts.¹³² These policy changes expanded Joachimsthalers' access to state benefits, extended such rights to uranium miners from East Germany, established a precedent for occupational radiation damage claims, and made responses to the issue more consistent across West Germany.

Conclusion

The Joachimsthalers never won full-throated official recognition as radiation victims. But they achieved a number of their initial goals, albeit later and more modestly than they had initially hoped: drawing government and public attention to their own situation and to radiation health risk, getting health screening, spurring medical research, and winning limited state benefits. They succeeded in part because they connected their own interests and specific historical experiences to the larger concerns of early Cold War West Germany, personifying both the health risks of the Atomic Age and the demands of citizens that their states offer real protection from such risks.

This story illustrates the importance of understanding the local Cold War. The Joachimsthalers captured their fellow West Germans' attention by making atomic risk personal. Their discussion framed the early Cold War not as a battle between East and West or as impending global nuclear conflict, but rather as a dangerous disconnect between pre-war regional knowledge about radiation from the Erzgebirge and the specific postwar experience in Czechoslovak uranium mines on the one hand, and personal and local threats posed by new atomic technologies and a West German state and society eager to dismiss the past even at the cost of neglecting its citizens on the other.

The Joachimsthalers' call for West Germans to engage the past in order to negotiate the dangers of the Atomic Age was highly selective. They rarely invoked the Nazi past in public discussion for all that their roles in Nazism had landed them in the mines after 1945. Nazi era networks were crucial to the Joachimsthalers' successes in enlisting government and media attention, but not openly acknowledged.

¹²⁸ Letter from Dr. Ulmer Silikose Forschungsinstitut der Bergbau Berufsgenossenschaft to Hauptverwaltung der Bergbau Berufsgenossenschaft 21 Jan. 1960, BA Koblenz B149/28707; Newsletter Nov./Dec. 1960, BayHStA, SdA: *Joachimsthaler* 46, 8; Dr. Hug letter to Bundesminister für wissenschaftliche Forschung Geschäftsführung der Deutschen Atomkommission. 28 May 1965, BayHStA, MArb 2559; Report on Meeting of Länderaussschuss für Atomkernenergie 9 Sept. 1965, BayHStA, MArb 2559.

¹²⁹ Deutscher Bundestag Drucksache 1792. 7 Apr. 1960, BayHStA, MArb 2559.

¹³⁰ Report from Dr. Zimmer (Regierungsmedezinialrat) to Bayr. MArb, 6 July 1962, BayHStA, MArb 2559.

¹³¹ From BMauS to Arbeitsminister der Länder 15 Nov. 1962, BayHStA, MArb 2559; Bundesversorgungsblatt 1/1963, BayHStA, MArb 2559, 2–3.

¹³² Memo from Dr. Lederer, Bayr. Ministerialrat, 28 Jan. 1963, BayHStA, MArb 2559; Böttcher, Arbeitsmin Baden-Württemberg to Arbeitsminister der Länder, 20 June 1963, BayHStA, MArb 2559.

Even public alarm about radiation and genetics, which had clear links to Nazi-era rhetoric and to Girschek's wartime work, were not a regular theme for the Joachimsthalers, who focused instead on cancer and general health damage. As with other expellees, their narrative of victimhood focused carefully on the period after 1945. Yet their pleas for historical continuity of medical and occupational knowledge reached back to the interwar era.¹³³

Recent scholarship has challenged the view that the early Federal Republic, and the early Cold War in the West, was defined by conservatism and apathetic consensus, demonstrating instead that West Germans actively shaped the postwar social, cultural and political landscape.¹³⁴ The Joachimsthalers were among the many groups who jockeyed to shape West German Cold War society in unexpected and often unrecognised ways.

The Joachimsthalers' lasting achievements were ones which did not win them direct benefits, but their advocacy contributed to occupational radiation protections in West German workplaces. They offered local inspiration for embracing a growing international consensus about the risks of radon exposure. Equally important, albeit harder to measure, the Joachimsthalers contributed to an emerging popular understanding that coincided with new medical evidence that even low-level radiation exposure could cause long-term health problems that might take years to appear and which could affect the entire population. And unlike the latest medical research, their warnings appeared in the daily newspapers. Their messages in the mass media joined those of dermatologists cautioning against radioactive therapies and farmers worried about crop contamination to suggest that radiation health concerns were not limited to specialised occupations or catastrophic events but were invisible and pervasive.¹³⁵

West Germany entered a new era of debates about radiation risk in the 1970s as the anti-nuclear power movement exploded on the scene.¹³⁶ But anti-nuclear activists, pro-nuclear officials, and radiation researchers embarked on this new phase with radiation health protection legislation and with protocols for identifying radiation damage. They agreed that nuclear radiation could pose health risks, though they differed about the circumstances in which those risks came into play. As 'lab rats for science', the Joachimsthalers had played a small role in building that consensus and debate.

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¹³³ Moeller, *War Stories*, 3–12.

¹³⁴ A few good examples of new approaches include: Monica Black, 'Miracles in the Shadow of the Economic Miracle: The Supernatural "50s" in West Germany', *Journal of Modern History* 84, no. 4 (Dec. 2012): 833–60; Astrid Eckert, *West Germany and the Iron Curtain: Environment, Economy, and Culture in the Borderlands* (New York: Oxford University Press, 2019); Frank Biess, *German Angst: Fear and Democracy in the Federal Republic of Germany* (New York: Oxford University Press, 2020).

¹³⁵ Murdock, 'Public Health in a Radioactive Age', 52–3, 59–60.

¹³⁶ Radkau and Hahn, *Aufstieg und Fall*, 291–305; Andrew Tompkins, *Better Active than Radioactive!* (New York: Oxford University Press, 2016).

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