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Cold War, Apocalypse and Peaceful Atoms. Interpretations of Nuclear Energy in the British and West German Anti-Nuclear Weapons Movements, 1955-1964

*Holger Nehring**

Abstract: Most environmental historians argue that an awareness of the dangers of nuclear energy emerged only during the 1970s. Conversely, they have noted a “blindness towards the apocalypse” (Günter Anders) during the 1950s and early 1960s. This article examines the perceptions of the dangers and possible benefits connected with nuclear energy within the protests against nuclear weapons in Britain and West Germany during the late 1950s and early 1960s in order to differentiate this assessment. Especially in the Federal Republic, discussions about the military use of nuclear energy prefigured the tropes which were to resurface in the environmental movements of the 1970s and 1980s. The civilian use of nuclear energy was, by contrast, increasingly seen as the harbinger of peace.

Introduction

Most environmental historians argue that an awareness of the dangers of nuclear energy emerged only during the 1970s. Conversely, they have noted a “blindness towards the apocalypse” during the 1950s and early 1960s.¹ This article widens the perspective of environmental history in order to come to a more differentiated assessment. It examines the perceptions of the dangers and possible benefits connected with nuclear energy within the protests against nuclear weapons in Great Britain and West Germany during the late 1950s and early 1960s. In this period, public discourse as well as discussions within the

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¹ The term is from Günther Anders, *Die Antiquiertheit des Menschen*, vol. 1 (Munich, 1956) (cf. the chapter “Über die Bombe und die Wurzeln unserer Apokalypse-Blindheit”).

movements in both countries regarded the dangers emanating from nuclear energy as stemming primarily from its military use. The civilian use of nuclear energy was, by contrast, increasingly viewed as the harbinger of peace. This shows that both movements were part of the technological discourses at the time, rather than opposed to them. We can only rarely find a general rejection of modernity in the two movements and only very little romantic protest.² Instead, we encounter a wholehearted embrace of modern society, coupled with an awareness of its problems.³ Within contemporary discussions, “the atom!” generally served as a symbol for modern society and for a good future. This enthusiasm for science served as a powerful argument at a time when the movements were accused of contributing to public hysteria.⁴ This article thus confirms analyses of the paradoxical nature of debates at the time.⁵

Despite these general similarities, each movement had specific national characteristics. Due to West Germany’s geographical position on the frontline of the Cold War and its recent experience of utter destruction during World War II, protesters in West Germany, much more than their British counterparts, felt that the dangers coming from the military use of nuclear energy were imminent. They conceptualized these dangers in much more catastrophic terms. The significance of these rhetorical differences goes beyond the history of these movements. Social movements, as “informal networks, based [...] on shared beliefs and solidarity, which mobilize about [...] conflictual issues,” provide a forum for societies to communicate about themselves.⁶ Without communication, environmental problems do not possess any social relevance.⁷ The debates within the social movements thus highlight popular perceptions of the problems connected with nuclear energy in Britain and West Germany more generally.⁸

² This is the argument in Ulrich Linse, *Ökopax und Anarchie. Eine Geschichte der ökologischen Bewegungen in Deutschland* (Munich, 1986) and Meredith Veldman, *Fantasy, the Bomb, and the Greening of Britain. Romantic Protest, 1945-1980* (Cambridge, 1994).

³ This was a feature of previous discussions on technological issues. Cf., for example, Uwe Fraunholz, *Motorphobia: Anti-Automobiler Protest in Kaiserreich und Weimarer Republik* (Göttingen, 2000). Peter Fritzsche has taken this to be a characteristic of modernity *per se*. Cf. his *A Nation of Fliers. German Aviation and the Popular Imagination* (Cambridge, 1992), pp. 218-219.

⁴ For examples cf. *The Macmillan Diaries. The Cabinet years, 1950-1957*, ed. and with an introduction by Peter Catterall (London, 2004), p. 303; and Konrad Adenauer, *Reden: 1917 – 1967. Eine Auswahl*, ed. by Hans-Peter Schwarz (Stuttgart, 1975), p. 357.

⁵ Joachim Radkau, *Aufstieg und Krise der deutschen Atomwirtschaft, 1945-1975. Verdrängte Alternativen in der Kerntechnik und der Ursprung der modernen Kontroverse* (Reinbek, 1983), p. 92.

⁶ Donatella della Porta and Mario Diani, *Social Movements. An Introduction* (Oxford, 1999), p. 16.

⁷ This interpretation follows Niklas Luhmann’s systems-theoretical approach. Cf. his *Ökologische Kommunikation* (Opladen, 1986), p. 63. More generally cf. his *Protest. Systemtheorie und soziale Bewegungen*, ed. by Kai-Uwe Hellmann (Frankfurt, 1996).

⁸ Luhmann, *Ökologische Kommunikation*, p. 91 and Kenneth E. Boulding, *Ecodynamics. A New Theory of Societal Evolution* (Beverly Hills, 1978), p. 20.

This article seeks to modify previous interpretations which have come to dominate contemporary environmental history.⁹ While studies on the perceptions of the dangers of the military uses of nuclear energy exist for the 1950s and 1960s, scholars of the environmental movements of the 1970s and 1980s have rarely engaged with that research and realized that many of the parameters of the environmental discourse, particularly its apocalyptic vocabulary, originated in the debates about nuclear weapons in the late 1950s and early 1960s.¹⁰ Instead, they have advanced arguments based on the implicit or explicit adoption of the notion of a “1950s’ syndrome”, an interpretation that highlights a general lack of awareness of environmental problems during the period of increased environmental pollution in the wake of growing industrial output and economic growth.¹¹ By taking the high level of awareness during the 1970s and the 1980s as a yardstick, proponents of these interpretations tend to dismiss as insufficient the knowledge concerning the dangers of nuclear energy that existed in the 1950s and early 1960s. This is often due to their rather narrow perspective on environmental movements, which, during the 1950s and 1960s, were primarily concerned with nature protection.¹² After outlining the development of the anti-nuclear weapons movements from the mid-1950s to the early 1960s, this article will analyze the debates about the dangers that nuclear weapons posed and then examine the hopes connected with the “peaceful atom.”

Imagining Nuclear Dangers

Both the British and the West German movements started as protests against nuclear weapons tests in the mid-1950s and the radiation emanating from them.

⁹ An exception is Franz-Josef Brüggemeier, *Tschernobyl, 26. April 1986. Die ökologische Herausforderung* (Munich, 1998), pp. 211-212. More generally, cf. the critical evaluation (with the relevant literature) by Frank Uekötter, “Umweltbewegung zwischen dem Ende der nationalsozialistischen Herrschaft und der ‘ökologischen Wende’: Ein Literaturbericht,” *Historical Social Research* 28 (2003), 1/2, pp. 270-289, and his *Naturschutz im Aufbruch. Eine Geschichte des Naturschutzes in Nordrhein-Westfalen 1945-1980* (Frankfurt and New York, 2004).

¹⁰ Most notably, the study by Ilona Stölken-Fitschen, *Atombombe und Geistesgeschichte. Eine Studie der fünfziger Jahre aus deutscher Sicht* (Baden-Baden, 1995) and the short piece by Wilfried von Bredow, “Der Atomdiskurs im Kalten Krieg (1945-1962),” in Michael Saelwiski (ed.), *Das nukleare Jahrhundert* (Stuttgart, 1998), pp. 91-101.

¹¹ Cf. Christian Pfister (ed.), *Das 1950er Syndrom. Der Weg in die Verschwendungsgesellschaft* (Bern, 1994).

¹² The term “environment” was not used in discussions of the 1950s and 1960s. Cf. Raymond H. Dominick III, *The Environmental Movement in Germany. Prophets and Pioneers, 1871-1971* (Bloomington, 1992) and Axel Goodbody (ed.), *The Culture of German Environmentalism: Anxieties, Vision, Realities* (New York and Oxford, 2002). On British environmental history, cf. John Sheail, *An Environmental History of Twentieth-Century Britain* (Basingstoke, 2002).

In Britain, the first protests against nuclear bomb tests and bases took place in the early 1950s, with the pacifist Peace Pledge Union at the centre. When public discussions about Britain's production of hydrogen bombs began in 1954, the Hydrogen Bomb National Campaign was founded as a novel pressure group. 1957 saw the formation of two more groups. The Direct Action Committee (DAC) was formed to protest against British H-bomb tests in the Pacific with Greenpeace-like tactics; its activities paralleled those of the more moderate National Committee for the Abolition of Nuclear Weapons Tests, formed in February 1957. This Committee merged into the newly-founded Campaign for Nuclear Disarmament (CND) in early 1958. CND campaigned for a policy of unilateral nuclear disarmament. In autumn 1960, a more radical group around the philosopher Bertrand Russell and his assistant Ralph Schoenman left CND and founded the Committee of 100.¹³

In West Germany, public awareness of the dangers of nuclear weapons emerged at around the same time as in Britain, although organizations were formed much later. As in Britain, the West German movement had its roots in concerns about the dangers of nuclear weapons tests. Initially, however, it was restricted to scientists who, in the Mainau Declaration of 1955, and, more famously, in the Göttingen Declaration of April 1957, warned of underestimating the dangers of nuclear weapons. While these sentiments had been translated into protests in Britain in the mid-1950s, no major protests emerged in West Germany at this time. This was primarily due to the staunchly anti-communist climate in the Federal Republic. Although anti-communism permeated both the British and the West German political cultures, it had a more immediate importance in the Federal Republic. Due to division and competition between the two German states, the "Cold Civil War" drew the boundaries of the "say-able" and the "do-able" much more clearly there than it did in Britain.¹⁴ In early 1958, the Social Democratic Party (SPD) and the trade unions launched a Campaign against Atomic Death when the Adenauer government planned to acquire nuclear-capable equipment for the German Army. A new movement emerged after the SPD abandoned the Campaign in the wake of their programmatic changes. In 1960, a small group of the Easter Marches of Atomic Weapons Opponents demonstrated for the first time in northern Germany. From 1961 on, there were marches all over the country. In September 1962, the movement changed its name to "Easter Marches of Atomic Weapons Opponents – Campaign for Disarmament."¹⁵

¹³ The standard work on this topic is Richard Taylor, *Against the Bomb. The British Peace Movement 1958-1965* (Oxford, 1988).

¹⁴ Patrick Major, *The Death of the KPD. Communism and Anti-Communism in West Germany, 1945-1956* (Oxford, 1997), p. 294. For one of many examples of West German interpretations, cf. "Gesteuerte Atomhysterie," *Rheinischer Merkur*, April 9, 1954.

¹⁵ The standard works on the West German developments are: Hans Karl Rupp, *Außerparlamentarische Opposition in der Ära Adenauer* (Cologne, 1984) and Karl A. Otto, *Vom Os-*

Throughout the period from the mid-1950s to the early 1960s, a complex interplay between Cold War and World War II experiences influenced the debates about the dangers of nuclear fall-out and of nuclear weapons in both countries. The combination of higher perceptions of threat in the Cold War and the catastrophic Second World War experiences meant that these discussions were more salient in the Federal Republic than in Britain. For West Germans, nuclear weapons threatened to repeat and amplify the experiences of total war. The relative neglect of this fundamental issue in British protests had also to do with the more directly political focus of the British campaign. From the beginning of the protests in the 1950s, the British protesters campaigned for a change of foreign and defense policy that would ban the tests and take unilateral steps to get rid of nuclear weapons, while the West German discussions were much more generally concerned with the dangers coming from tests. Initially, West German public statements emphasized less the elements of an alternative foreign and defense policy and more the survival of the German nation – hence the rather gloomy title of the West German Campaign against Atomic Death as opposed to the British Campaign for Nuclear Disarmament. Only after the SPD had abandoned the Campaign by late 1959 did a movement emerge which concerned itself more with presenting an alternative foreign policy. With this shift in emphasis, along with the receding World War II experiences and with the Cold War détente, the issue of the dangers of nuclear weapons lost importance in German public discussions as well. The debates took place at a time when “security” in general was one of the key words in the domestic political discourse in both countries.¹⁶ Due to its seeming insecurities, nuclear deterrence became a creeping atomic war for many activists, particularly as test explosions would already harm people in peace time and thus turn peace into war.¹⁷

Both the British and the West German populations only slowly became aware of the dangers of nuclear weapons. After World War Two, the destructive powers of nuclear weapons were apparent, but, given the closeness of the World War experiences and despite Hiroshima and Nagasaki, people still perceived the threat of nuclear weapons along rather abstract lines.¹⁸ Only the development and testing of hydrogen bombs by the United States, and, later, by Britain and the Soviet Union, drove the dangers of nuclear energy home to an increasing number of the British and West German populations and led to the first, rather muted, protests in early 1954.¹⁹ To most Britons and West Ger-

termarsch zur APO. Geschichte der ausserparlamentarischen Opposition in der Bundesrepublik 1960-1970 (Frankfurt, 1982).

¹⁶ Cf. Hans Braun, “Das Streben nach ‘Sicherheit’ in den 50er Jahren: Soziale und politische Ursachen und Erscheinungsweisen,” *Archiv für Sozialgeschichte* 18 (1978), pp. 279-306.

¹⁷ Wolfgang Bartels, “Der militärische Mißbrauch des Atoms,” *Gewerkschaftliche Monatshefte* 9 (1958), pp. 193-197.

¹⁸ Cf. Stölken-Fitschen, *Atombombe und Geistesgeschichte*, p. 48.

¹⁹ “Atombomben,” *Der Spiegel*, December 25, 1950. Cf. auch: “Apokalypse,” *Die Neue Zeitung*, February 16, 1950; “Selbstmord in temporärem Wahnsinn. Physikalische Grundla-

mans, however, an uneasy balance between awe and fear, an admiration of the aesthetics of the atomic mushrooms and of the power inherent in “the atom,” as people perceived it, went side by side. It is characteristic of this mixture that the Bikini Atoll, the location of the American tests, gave its name to a piece of clothing, and that contemporary publications showed beauties bathing in bikinis side by side with the mushroom clouds.²⁰

It was probably one accident more than any other that alerted the British and West German populations to the dangers of radiation. The Japanese fishing vessel *Lucky Dragon* had sailed into the testing area in the Pacific Ocean, leaving its crew severely radiated.²¹ It had now become obvious that it was impossible to isolate the dangers of nuclear weapons. British and West German newspapers and movement activists interpreted the incident in ways which highlighted the fact that nuclear energy was now out of control, that human beings, like the sorcerer’s apprentice, had released a power that they could no longer control.²² It was only through luck that a catastrophe could be averted.²³

What was new in these discussions was that the perceived threat from these weapons was no longer merely connected to the use of the weapons in wartime, but also referred to health hazards in times of peace.²⁴ Often, the rhetoric revealed a rather religious understanding of the powers of nature that can be found in other areas of the environmental discourse of the 1950s and in the broadly pessimistic tone of the intellectual discourses of the time.²⁵ Many statements highlighted the bombs’ “demonic power”; some classified them as “apocalyptic weapons.”²⁶ Accordingly, their further development was regarded as “blasphemy,” “temptation of the Creator,” and “human hubris.”²⁷ They pointed

gen, Aufbau und Wirkung der Wasserstoff-Atombombe - Vorbote des großen Weltenbrandes.“ *Das Echo der Woche*, March 3, 1950.

²⁰ Cf. Eckhard Siepmann (comp.), *Bikini. Die fünfziger Jahre. Kalter Krieg und Capri-Sonne. Fotos-Texte-Comics-Analysen* (Reinbek, 1983).

²¹ On reactions in Japan and the United States cf. Robert A. Divine, *Blowing on the Wind. The Nuclear Test Ban Debate 1954-1960* (New York, 1978), pp. 7-8 and George H. Gallup, *The Gallup International Public Opinion Polls. Great Britain 1937-1975. Vol. 1: 1937-1964* (New York, 1976), p. 320.

²² “Im Bann planetarischer Gefahren,” *Die Welt*, March 24, 1954; “Das entsetzliche Ding von Bikini,” *Weser Kurier*, March 26, 1954; “Frieden durch Schrecken,” *Frankfurter Allgemeine Zeitung*, March 30, 1954. On reactions in Britain, cf. Christopher Driver, *The Disarmers. A Study in Protest* (London, 1964), pp. 26-27.

²³ “Die Katastrophe von Bikini,” *Rheinischer Merkur*, April 2, 1954.

²⁴ “Irrtum auf Bikini,” *Die Gegenwart*, March 27, 1954.

²⁵ Jens-Ivo Engels, “Vom Subjekt zum Objekt. Naturbild und Naturkatastrophen in der Geschichte der Bundesrepublik Deutschland,” in: Dieter Groh, Michael Kempe and Franz Mauelshagen (eds.), *Naturkatastrophen. Beiträge zu ihrer Deutung, Wahrnehmung und Darstellung in Text und Bild von der Antike bis ins 20. Jahrhundert* (Tübingen, 2003), pp. 119-142, here pp. 122-134; and Paul Nolte, *Die Ordnung der deutschen Gesellschaft. Selbstentwurf und Selbstbeschreibung im 20. Jahrhundert* (Munich, 2000), pp. 273-318.

²⁶ “Papierstrategie und H-Bomben,” *Westdeutsches Tageblatt*, March 25, 1954.

²⁷ “Die Atomwaffe,” *Hamburger Abendblatt*, April 10, 1954; “Im Bann planetarischer Gefahren,” *Die Welt*, March 24, 1954.

out that it was important to use the powers of nature, but not to change them and not to search for the infinite.²⁸

The growing perceptions of the dangers of radioactivity in the air increasingly found expression in worries about radioactive fall-out from the bomb tests in the Pacific reaching Europe and, especially, about Strontium-90 in milk. It was particularly in the debates on Strontium-90 in milk that both societies thematized their worries about the future. Pregnant women and newborn babies were singled out as being particularly endangered. The growing movements in both countries tried to tap these fears of imperilled nationhood.²⁹ They alerted the British and West German populations to dangers from radioactive rain. These worries, which attest to the high awareness of the German population at the time, included fears about climate change induced by radioactivity set free through test explosions. In June 1956, 59% of the West German population argued that bad weather conditions were due to high levels of radioactivity in the air. By October, that number had climbed to 68%.³⁰ One commentator close to the early anti-nuclear weapons movement in the Federal Republic argued that “while the North of the Federal Republic was affected by a week-long drought, fertile cultures and homesteads in North Hesse, Thuringia and Lower Saxony drowned in continuous rainfalls. Since the beginning of mankind there have not been such weather catastrophes. ... But with the Flood came the radioactive plague.”³¹ Some more comical fears included suspicions in the West German population that white female underwear drying on a rope in Celle had gained a blue-violet tone after a rain shower.³²

The British movement, by contrast, appears to have been much less concerned about these existential issues. In general, discussions in Britain were more fact-oriented and shied away from broad statements about the impact of nuclear weapons. Instead, they emphasized the horrors of the situation: “the children playing hide-and-seek in Virginia, the Ukraine, Westphalia and Warwickshire will suddenly find there is no place to hide.”³³ They also stressed the

²⁸ “Die Erben der Erde,” *Aachener Nachrichten*, April 6, 1954. For Britain, cf. Frank Parkin, *Middle Class Radicalism. The Social Bases of the British Campaign for Nuclear Disarmament* (Manchester, 1968), pp. 60-77.

²⁹ Cf. *Tomorrow's Children* [c. 1960]: Modern Record Centre [MRC], University of Warwick, MSS.181/4 and the memorandum about the exhibition “Atom – Fluch oder Segen,” Frankfurt/Main, Römerhallen [n.d., November 1958]: *Archiv der sozialen Demokratie* [AdsD], Bonn, 2/PVAM000027.

³⁰ *Jahrbuch der öffentlichen Meinung* 1957, p. 362; *Emnid-Informationen* 8 (1956), no. 43, p. 7.

³¹ “Erhöhte Radioaktivität des Regens in Bayern,” *Stuttgarter Zeitung*, June 26, 1956; “Bedrohen Atomstrahlen Deutschland?,” *Die Welt*, June 26, 1956; “Radioaktiver Regen,” *Industriekurier*, June 28, 1956 and “Luft-radioaktivität über Hamburg hat sich verzehnfacht,” *Hamburger Abendblatt*, July 5, 1956. For reactions in the population, cf. the files in the Bundesarchiv Koblenz [BAK] B 138/100 (2).

³² *General-Anzeiger (Bonn)*, July 7, 1956.

³³ *CND Bulletin*, June 1958, p. 1 and *CND Bulletin*, May 1959, p. 3: MRC MSS.181/4.

importance of “public education” about the dangers of radioactive fall-out. Like most of their West German counterparts, however, British protesters maintained the link between radioactivity and nuclear tests rather than widening discussions to encompass radioactivity in general.³⁴

During the test moratorium which the United States and the Soviet Union observed from 1958 onwards, concern about the dangers of nuclear tests was voiced more rarely. When the Soviet Union started a new test series for a massive 60 MT bomb in autumn 1961, shortly after the building of the Berlin Wall, pictures of nuclear apocalypse again came to be connected to the issue of nuclear tests. For one West German observer, the device became “a horseman of the apocalypse ... frightening, incalculable, threatening everyone in the same way, the non-guilty like the perpetrator, the unborn much more than the born.”³⁵ Other papers feared a “world-wide Hiroshima” and calculated damages up to the year 4,962.³⁶

During and after the Cuban Missile Crisis, discussions in both movements about the dangers of nuclear weapons tests became less salient. With the beginning of superpower détente and the Partial Test Ban Treaty, the dangers of nuclear weapons seemed to have been tamed: “the atom” came to be linked less to life-threatening dangers. In West Germany, a new and younger generation of protesters emerged within the movements, so that war experiences receded into the background and new issues, such as the Vietnam War, which were not directly connected with the dangers of nuclear energy came to the forefront. However, some older activists, most notably the physicist Karl Bechert and the Munich-based Catholic writer Carl Amery, took the apocalyptic images with them and injected them into the public discourse of the environmental movements of the 1970s and 1980s.³⁷ In Britain, by contrast, those who had framed the discourses of the 1950s and early 1960s were too old to take part in the later discussions about nuclear energy. This may at least partly explain the weakness of the more recent British environmental movement.

The images which emerged in both countries in the mid-1950s to describe the dangers of nuclear weapons remained characteristic within the discourses in both movements until the early 1960s, if not until the 1970s and 1980s. While the immediate war experiences moved slowly to the back of people’s memories and the dangers coming from the Cold War seemed to be less immediate, the dangers of nuclear weapons came into sharp relief. West Germans, in particu-

³⁴ Cf., for example, Stephen Siteman, “The Dangers of Radiation,” *Peace News*, August 23, 1957, p. 7.

³⁵ “Die tödliche Drohung,” *Stuttgarter Zeitung*, October 26, 1961. The German weather service was now also instructed by the government to give air radioactivity levels in their forecasts: *Bulletin des Presse- und Informationsamtes der Bundesregierung*, November 29, 1961.

³⁶ “Atomschwaden über Deutschland,” *Der Spiegel*, 48, 1961.

³⁷ On Amery, cf. the interview in Goodbody (ed.), *The Culture of German Environmentalism*; on Bechert, see Radkau, *Aufstieg und Krise*, pp. 435ff.

lar, highlighted the themes of annihilation and chaos in the case of a Third World War.³⁸

This imagery had important roots in the popular fascination with “the atom” since the beginning of the twentieth century. But it would be too simplistic to draw a direct line from the many apocalyptic voices of the 1920s and 1930s to the discussions of the 1950s and 1960s.³⁹ In both countries, fascination and fear had stood side by side from the beginning of discussions; only the balance between the two shifted. The language which was used from then on to describe the dangers of nuclear weapons had first emerged after the Second World War to describe the threats coming from atomic bombs in the late 1940s. From its inception in the late 1940s and early 1950s, the discourse about the dangers of nuclear energy was connected to its military rather than its civilian uses. It only gradually moved toward a more general concern with disarmament. In the Federal Republic, and to a lesser degree in Great Britain, the military uses of nuclear energy therefore came to be connected with the memory of the bombings of the Second World War.⁴⁰ This memory was not restricted to West Germany, but can be found with a similar salience in British publications, albeit with a different resonance. While these memories allow a glimpse into catastrophic experiences in Germany, they also point to personal continuities between the protesters of the late 1950s and 1960s and participants in the British campaigns against night bombing during the Second World War.⁴¹ Throughout the period, most British protesters, in contrast to their West German counterparts, voiced their concerns in terms of international politics, rather than immediate death and destruction.⁴²

From the late 1950s onwards, the military uses of nuclear energy came to be connected with the awareness of the dangers of testing in West Germany. It

³⁸ “Das Menetekel der Atombombe,” *Die Zeit*, April 1, 1954. Cf. also the report, “Frankfurter Delegation in Japan,” [n.d., c. 1958]: AdSD, DGB Archives, Abteilung Organisation, 24/2217. On the very similar reception in Britain, cf. Driver, *The Disarmers*, pp. 27-28. On the worries of the British government about public opinion, cf. ‘Memorandum on Fall-out from the Minister of Defence, December 9, 1954: National Archives, London [NA] CAB 128/72, C(54).

³⁹ This is the interpretation offered by Kirk Willis, “The Origins of British Nuclear Culture, 1895-1939,” *Journal of British Studies* 34 (1995), pp. 59-89.

⁴⁰ Michael Geyer, “Cold War Angst. The Case of the West-German Opposition to Rearmament and Nuclear Weapons,” in Hanna Schissler (ed.), *The Miracle Years. A Cultural History of West Germany, 1949-1969* (Princeton, 2001), pp. 376-408, here pp. 392-398.

⁴¹ Cf., for example, “Jede Atombomben-Explosion ist ein Verbrechen an der Menschheit,” *Das Gewissen*, 1 (1956), p. 1; *Verhandlungen des Deutschen Bundestags*, 3. Wahlperiode, *Stenografische Berichte*, vol. 40, March 25, 1958, p. 1087B; Reimar Lenz, *Die Atomrüstung und der Intellektuelle* (Berlin, 1958), p. 38. For Britain cf. “Hiroshima, Belsen – and Berlin. Have we still learned nothing,” *Peace News*, August 4, 1961, p.1; and Harry Elmer Barnes, “The coming of World War II,” *Peace News*, November 10, 1961, pp. 6-8; Cf. Edward Owen, “Dresden – a step towards megadeath,” *Peace News* May 31, 1963, p. 6. Cf. also *Peace News*, April 24, 1959, p. 1.

⁴² Cf. Taylor, *Against the Bomb*, pp. 5-41.

was only then that Hiroshima emerged as synonym for man-made apocalypse.⁴³ As memories of the bombing war receded, Robert Jungk, in particular, stylized Hiroshima's and Nagasaki's victims as images of the future of atomic warfare. Particularly in West Germany, Jungk's claim that now, in contrast with the Holocaust, no-one could claim ignorance of this "creeping suicide of mankind," resonated especially strongly.⁴⁴ The appeals of the survivor of the National Socialist regime that no one should "survive as accidentally as we did" resonated widely in the British and West German public.⁴⁵ All these themes gained in importance in the late 1950s when the issue of dangerous nuclear fall-out was re-connected to the debates about defense policy at the time.

In West Germany, then, discussions about environmental dangers served to externalize experiences and fears of destruction in a period of heightened Cold War tensions. We can often find comparisons with the Black Death of the Middle Ages, which had been "a plague caused by humans ... which does not know any borders once it is let loose by criminals or fools."⁴⁶ While Hiroshima had already become a place of memory in Britain, this place was still taken by the experience of World War II in West Germany. A British exhibition on the dangers of nuclear weapons had the title, "No place to hide," following David Bradley's 1948 novel, which was directly concerned with the effects of the bombing of Hiroshima. When the exhibition came to West Germany, the title of the German exhibition was translated to "Keiner kommt davon" ("No one can escape"), after a novel by Hans Hellmut Kirst on the Second World War experience.⁴⁷

Despite the differences in World War experiences, we can observe in both countries an emphasis on the dangers of an attack by stealth, a discussion whose continuities went back to the stealth bomber scares in Britain and Germany during the 1920s and 1930s.⁴⁸ The radioactive particles which "tests had

⁴³ Stölken-Fitschen, *Atombombe und Geistesgeschichte*, pp. 244-245; R. W. Kaplan, "Eine Zwischenbilanz der Atombombenschäden in Hiroshima und Nagasaki," *Deutsche Medizinische Wochenschrift* 84 (1959), pp. 1029-1031.

⁴⁴ Paul Sethe, "Wir haben es vorher gewußt," *Die Welt*, May 3, 1958.

⁴⁵ Robert Jungk, *Strahlen aus der Asche. Geschichte einer Wiedergeburt*, with a preface by Matthias Greffrath (Munich, 1991) [1959], p. 317; the English edition was published only two years later as *Children of the Ashes. The Story of a Rebirth* (London, 1961). Cf. also Günter Anders's analysis that the situation of not-yet-being-murdered that had characterized life in concentration camps was also true for the current situation: Thomas Metscher, "Notizen für eine Ontologie der atomaren Situation," *Das Argument* 3.18 (1961), February 1961.

⁴⁶ Werner Friedmann, "Kapitulation vor der Hölle," *Süddeutsche Zeitung*, 19 March 1955 and idem, "Wettlauf des Wahnsinns," *Süddeutsche Zeitung*, 21/22 July 1956.

⁴⁷ Cf. the letter from the Arbeitsausschuß Nord-Rhein-Westfalen Kampf dem Atomtod to Zentralausschuß Kampf dem Atomtod, June 10, 1959: AdsD 2/PVAM000044; John Brunner, "Travelogue of an A-bomb exhibition," *Peace News*, November 20, 1959, p. 5.

⁴⁸ Hans Thirring, "Die lautlose Waffe," *Merkur* 10.1 (1956), pp. 25-36 and "Die Asche des Todes," *Die Welt*, February 2, 1956. For a British interpretation, cf. the lyrics of the song "Across the Hills" by Leon Rosselson in *Songs and Hopes Instead. The Sanity Song book*.

thrown into the air” could hit the earth in the forms of “rain, radioactive, as dew, radioactive, as fog, dust or snow, all radioactive. No human being could be sure that it did not affect him.”⁴⁹ This was seen as particularly dangerous because the “atomic cloud” was not different from the other air; it was just “a radioactively marked body of air,” one thousandth of which would be enough to poison humankind.⁵⁰

Scientists played a crucial role in providing the movements and their publics with knowledge. This knowledge was transmitted across borders.⁵¹ Similar themes were discussed in Britain, West Germany and elsewhere. When Linus Pauling warned, for example, that “every nuclear test kills” and would lead to genetic defects, this was picked up by both movements.⁵² While the manifesto of the Mainau Conference of Nobel Prize winners in the summer of 1955 had been an endeavour without wider repercussions in other countries, the manifesto issued by the philosopher Bertrand Russell and the physicist Albert Einstein in late 1954 reached a global audience. Apart from the authors, the document was signed by Max Born, Frédéric Joliot-Curie and Linus Pauling, bridging the democratic-communist divide.⁵³ The manifesto called for the overcoming of the East-West-conflict and for a conference of scientists to discuss possible ways of controlling nuclear energy.⁵⁴ Beginning in the summer of 1957, scientists had such a transnational forum. After plans to hold the conference in India fell through, Cyrus Eaton, a wealthy Canadian industrialist, offered his estate in Pugwash, Nova Scotia as a venue. In July 1957, the first

MRC, MSS.181/4. On the 1920s and 1930s cf. Peter Fritzsche, “Machine Dreams: Air-mindedness and the Reinvention of Germany,” *American Historical Review* 98 (1993), pp. 685-709, especially pp. 685-688 and 690-691. For Britain, cf. Martin Ceadel, “Popular Fiction and the Next War, 1918-1939,” in Frank Gloversmith (ed.), *Class, Culture and Social Change* (Brighton and Atlantic Highlands, N.J., 1980), pp. 161-184.

⁴⁹ “Von Bikini bis Bonn am Rhein,” *Frankfurter Rundschau*, June 14, 1956; and: “Un-sichtbarer Tod umkreist die Erde,” *Passauer Neue Presse*, June 11, 1956.

⁵⁰ “Der heiße Regen,” *Der Spiegel*, July 18, 1956. For Britain cf. Driver, *Disarmers*, pp. 12-39. On British perceptions cf. Nevil Shute’s novel *On the Beach* (London, 1957) and Spencer R. Weart, *Nuclear Fear. A History of Images* (Cambridge, 1988), pp. 217n, as well as Kenneth Ingram, “They face the end after nuclear war,” *Peace News* August 23, 1957, p. 7 and Alan Lovell, “On the Beach,” *Peace News* December 25, 1959, p. 8; Cf. Marghanita Laski, Naomi Mitchison, Ella Hunter and a Doctor, *Survivors. Fiction based on scientific fact*, ed. by Dr. Antoinette Pirie [n.d.]: MRC, MSS.181/4.

⁵¹ Cf., for example: “Harwell man gives facts on radiation,” *Peace News*, October 18, 1957, p. 3. Cf. also A Physicist and a Doctor, *All about radiation*, (n.l., 1957), D. G. Arnott, *Our Nuclear Adventure* (London, 1957) and Antoinette Pirie (ed.), *Fall Out. Radiation Hazards from Nuclear Explosions* (London, 1957).

⁵² “Every nuclear test kills,” *Peace News*, March 7, 1958, p. 9. For the West German reaction, cf. Stölken-Fitsche, *Atombombe und Geistesgeschichte*, pp. 109-116, 131-136, 248-254.

⁵³ Cf. Otto Hahn, *Erlebnisse und Erkenntnisse* (Düsseldorf and Vienna, 1975), pp. 217-219. On the origins of the declaration and its reception in Britain, cf. Ray Monk, *Bertrand Russell. The Ghost of Madness 1921-1970* (London, 2000), pp. 375-379.

⁵⁴ Cf. Bertrand Russell, “World Conference of Scientists,” *Bulletin of Atomic Scientists* 12 (1956), pp. 41-43 and Monk, *Russell*, p. 373.

conference of what was to be called the “Pugwash Movement” met to discuss the hazards of atomic energy, the control of nuclear weapons, and the social responsibility of scientists. Its annual conferences were widely publicized beyond the immediate confines of the scientific community and the information discussed in them was important for informing the wider population about the dangers of nuclear weapons.⁵⁵ At these conferences, scientists developed an ideal that stressed the apolitical and non-partisan nature of scientific research, presenting it as a bridge that would lessen tensions between East and West.⁵⁶ Similarly, the theologian and missionary Albert Schweitzer became, with his pamphlet “Respect for Life” (“Ehrfurcht vor dem Leben”), another important transnational point of reference for the British and West German protests against nuclear weapons from 1957 onward and an icon of both movements with a “universal, magic appeal.”⁵⁷ Here was a good German who issued dire warnings about the biological dangers of radioactivity.⁵⁸

These ideals of rational scientists who worked for international understanding fell on particularly fertile ground in West Germany. While British scientists saw their role primarily as sources of knowledge, West German scientists, following particularly German scientific traditions, assumed a role as moral monitors. While physicists such as P. M. S. Blackett and John D. Bernal, biologists like Antoinette Pirie and the mathematician and philosopher Bertrand Russell were important intellectuals for the British campaign, and while they probably published more about the dangers of radioactivity than their German counterparts, they did not play as distinct a role as West German scientists. Apart from Bertrand Russell, they did not assume a role as wise mandarins.⁵⁹ This had to

⁵⁵ Cf. “Twelve years ago Hiroshima was atom-bombed. Today the World’s scientists warn: ‘Stop Arms Race’,” *Peace News*, August 2, 1957, pp. 1, 8; Werner Kliefoth and Gerd Burkhardt, “Die Pugwash-Konferenzen,” *Atomzeitalter* 3 (1961), pp. 6-9; Eugene Rabinovitch, “Pugwash – History and Outlook,” *Bulletin of Atomic Scientists* 13 (1957), pp. 243-250. Cf. on the founding of the Pugwash Movement Matthew Evangelista, *Unarmed Forces. The Transnational Movement to End the Cold War* (Ithaca, 1999), pp. 25-32 and Monk, *Russell*, p. 380. On its history more generally, written by one of its founders: Joseph Rotblat, *Scientists in the Quest for Peace. A History of the Pugwash Movement* (Cambridge, 1972).

⁵⁶ Cf. John D. Bernal, *World Without War* (London, 1958) and idem, *Science in History* (London, 1954) and Dirk van Laak, “Das technokratische Momentum in der deutschen Nachkriegsgeschichte,” in Johannes Abele, Gerhard Barkleit and Thomas Hänseroth (eds.), *Innovationskulturen und Fortschrittserwartungen im geteilten Deutschland* (Cologne et al, 2001), pp. 89-104, here p. 94 on Bernal’s reception in Germany.

⁵⁷ Cf. Dr. Homer Jack, “Reflections at Lambarene,” *Peace News*, April 18, 1957, p. 4

⁵⁸ Cf. “Leave this folly-face reality – Dr. Schweitzer,” *Peace News*, April 26, 1957, pp. i-ii; Dr. Homer Jack, “Reflections at Lambarene,” *Peace News*, April 18, 1957, p. 4. Albert Schweitzer was so popular as to make it onto the title page of *Der Spiegel*, no. 52, 1960. Cf. also the article on Schweitzer “Mythos des 20. Jahrhunderts,” *ibid.*, pp. 50-61; on Schweitzer’s role as icon for the West German movement, cf. as one of the many examples: Letter Maaß to Heinz Adler (Oldenburg), October 20, 1959: AdsD, 2/PVAM000011.

⁵⁹ For the status of intellectuals, cf. Fritz K. Ringer, *The Decline of the German Mandarins. The German Academic Community 1890-1930* (Cambridge, 1969); Parkin, *Middle Class*

do with the importance of intellectuals in German public culture and the high esteem in which Germans held the particular scientists who became involved. The German scientists, most of whom had been active during the National Socialist regime, used their activities to refashion their social image as intellectuals above politics, yet endowed with special political insights. They intended this to be a counterpoint to the history of physics and the natural sciences during the National Socialist regime, which, with its technocratic and pragmatic approach, seemed to have pushed their educational and cultural value to the sidelines of the profession.⁶⁰ West German scientists thus sought to rescue the tradition of political influence that had characterized German physicists since the late nineteenth century. Particularly those scientists involved in the several appeals maintained a philosophical and culturally pessimistic outlook within their research.⁶¹

All these elements crystallized when eighteen scientists, amongst them many Nobel Prize winners, issued the “Göttingen Manifesto” in April 1957, which criticized Adenauer’s comparison of nuclear artillery with conventional weapons and sparked the first wide-scale anti-nuclear weapons protests in the Federal Republic.⁶² Here, they presented themselves as passive resisters, as a moral voice directed towards immoral politics. With their refusal to cooperate in the development of military nuclear weapons and their parallel endorsement of the peaceful uses of nuclear energy, they suggested that these two areas could be clearly separated. In other statements, they sought to present this as the continuation of the good German tradition that had characterized their actions during the National Socialist regime: unlike their British and American colleagues, they had not been corrupted through working for the government. Robert Jungk popularized this interpretation in his book, *Brighter than a Thousand Suns*.⁶³ These efforts to reconstitute the German-educated bourgeoisie resonated widely within German post-war and post-National Socialist society. They met with the efforts of the Social Democratic Party in the campaign to win over a more substantial part of the middle-class constituency.

Radicalism, pp. 93-109; Cf. Jan-Werner Müller, *Another Country. German Intellectuals, Unification and National Identity* (New Haven, 2000), pp. 6-10.

⁶⁰ Gabriele Metzler, *Internationale Wissenschaft und nationale Kultur. Deutsche Physiker in der internationalen Community 1900-1960* (Göttingen, 2000), pp. 196-198.

⁶¹ Metzler, *Internationale Wissenschaft*, pp. 44-45, p. 62, and p. 78. On cultural pessimism during the 1950s and early 1960s more generally, cf. Müller, *Another Country*, pp. 31-37.

⁶² Stölken-Fitschen, *Atombombe und Geistesgeschichte*, p. 214.

⁶³ “Der Appell der Achtzehn,” *Rheinische Zeitung* (Koblenz), April 15, 1957; “Verantwortliche gegen Zauberlehrlinge,” *Frankfurter Rundschau*, April 16, 1957 for this connection. Cf. Robert Jungk, *Heller als Tausend Sonnen. Das Schicksal der Atomforscher* (Stuttgart, 1956). The English edition was published only two years later as *Brighter than a Thousand Suns. The Moral and Political History of the Atomic Scientists* (London, 1958). Jungk’s thesis has, however, been proven to be a myth. Cf. Mark Walker, “Legenden um die deutsche Atombombe,” *Vierteljahrshefte für Zeitgeschichte* 38 (1990), pp. 45-74.

Another factor gave the position of West German scientists a peculiar shape. Much more than in Britain, the peaceful use of atomic energy was regarded within the movements as a national task which would help Germany to rejoin the community of nations peacefully.⁶⁴ The supranational spirit of science enabled the scientists to find a language which transcended national boundaries.⁶⁵ This “vision of a humanitarian bond between science and society for the public good” dominated West German public discourse both within and outside the movements until the early 1960s.⁶⁶ The fact that some West German scientists agreed with Heisenberg, Carl Friedrich von Weizsäcker and others, only underlines this argument.⁶⁷ Hamburg Professor Pascual Jordan, one of the founders of quantum mechanics, for instance, had started to adopt a more technocratic and less philosophical style of research in the Third Reich.⁶⁸

The Debates about the “Peaceful Atom”

While the debates highlighted the dangers related to the military uses of nuclear energy, most supporters of the British and West German anti-nuclear weapons movements did not extend their skepticism to the civilian use of “the atom.” Most discussions in both countries departed from an analysis of the present as an “atomic age” which commentators regarded as both threat and challenge.⁶⁹ The SPD’s Campaign even had a journal called *Atomic Age (Atomzeitalter)*, which served not primarily to warn the population of the dangers of nuclear

⁶⁴ This interpretation goes back to Eisenhower’s “Atoms for Peace” speech in 1955. On the program cf. Michael Eckert, “‘Atoms for Peace’ – Eine Waffe im Kalten Krieg,” *Bild der Wissenschaft*, no. 5, (1987), pp. 64-74.

⁶⁵ Jungk, *Heller als Tausend Sonnen*, p. 369; cf. also, Günther Anders, “Über Verantwortung heute [Rede vor Studentenkongreß gegen Atomrüstung 1959],” in: idem, *Die atomare Drohung. Radikale Überlegungen* (2nd ed. of *Endzeit und Zeitenwende*) (Munich, 1981), p. 51. Cf. also, Metzler, *Internationale Wissenschaft*, p. 229.

⁶⁶ Quoted in Stölken-Fitschen, *Atombombe und Geistesgeschichte*, p. 220. For one of these plays, cf. Hanns Henny Jahnn, “Die Trümmer des Gewissens,” in: idem, *Werke und Tagebücher in sieben Bänden*, vol. 5 (*Dramen II*) (Hamburg, 1974), pp. 305-390.

⁶⁷ On Carl Friedrich von Weizsäcker’s thinking, cf. Michael Drieschner, *Carl Friedrich von Weizsäcker. Zur Einführung* (Hamburg, 1992). Cf. also, Elisabeth Kraus, *Von der Uran-spaltung zur Göttinger Erklärung. Otto Hahn, Werner Heisenberg, Carl Friedrich von Weizsäcker und die Verantwortung des Wissenschaftlers* (Würzburg, 2001).

⁶⁸ Cf. Richard H. Beyler, “Targeting the Organism. The Scientific and Cultural Context of Pascual Jordan’s Quantum Biology,” *Isis* 87 (1996), pp. 248-273; M. Norton Wise, “Pascual Jordan: Quantum Mechanics, Psychology, and National Socialism,” in: Monika Renneberg and Mark Walker (eds.), *Science, Technology, and National Socialism* (Cambridge, 1994), pp. 224-254. Cf. also Metzler, *Internationale Wissenschaft*, pp. 196-197.

⁶⁹ Ernst Friedlaender, “Die Atomwaffe,” *Hamburger Abendblatt*, April 10, 1954.

energy, but to introduce it to a rational perspective on these matters.⁷⁰ The discussions about the peaceful use of nuclear energy thus usually followed the binary code of “curse” and “blessing.”⁷¹ Rather than interpreting this as a specific hallmark of German nationalism, as Peter Fritzsche argues in his discussion of aviation in Germany’s popular imagination in the 1930s,⁷² a comparison with Britain suggests that public ambivalence towards technological innovations was neither in the 1950s nor earlier a specifically German phenomenon.⁷³ The theme of “curse” and “blessing” was based on the essential distinction between “peaceful” and “military” use of “the atom.” This distinction dates back to the immediate post-war period and the discussions about how to maintain the monopoly of nuclear weapons that the United States held at the time. In an article published in German, for instance, the philosopher Bertrand Russell concluded that the civilian use of atomic energy could bring a new age if a world government with control over nuclear weapons were constructed.⁷⁴ It is a sign of the ambivalent character of these years of transition that the themes often overlapped. A West German psychological journal highlighted this spirit of the age from a Freudian perspective: apart from feelings of fear, human beings also possessed an archaic wish for destruction. Therefore, the journal concluded, “human beings subconsciously enjoy thinking of the unimaginable power of the Bomb.”⁷⁵ While this analysis throws West German post-catastrophic society into sharp relief, there is a more obvious explanation for the ambivalent character of the period. It lies in the declining strength of cultural pessimism and in the rise and final dominance of a more empirical self-observation of society, which manifested itself in a veritable euphoria for democratic planning.⁷⁶

⁷⁰ On the history of the journal under the editorship of Claus Koch, cf. AdsD, IG-Metall Archives: G1010; and Claus Koch (KdA) to Georg Breuer (Wien), December 11, 1962, AdsD PVAM000012.

⁷¹ Werner A. Uhlig, *Atom, Angst oder Hoffnung? Die Lehren des ersten Atommanövers der Welt* (Munich, 2nd ed., 1956), p. 3 and idem, “Atom-Angst und Wirklichkeit,” *Die Politische Meinung*, 3 (1956), pp. 52-63.

⁷² Cf. Fritzsche, “Airmindedness,” p. 692.

⁷³ Cf. Willis, “Origins.” For the historical background cf. Bernhard Rieger, “‘Modern Wonders’: Technological Innovation and Public Ambivalence in Britain and Germany, 1890s to 1933,” *History Workshop Journal* 55 (2003), pp. 152-176. Cf., for earlier examples: Antonia Zimmern, “The New Discoveries in Electricity,” *Nineteenth Century* 55 (1904), p. 89 and idem, “The Revelations of Radium,” *Edinburgh Review* 198 (October 1903), p. 398.

⁷⁴ Bertrand Russell, “Aussichten für die Menschheit,” *Die Brücke*, March 22, 1947, pp. 6-9, here p. 6. At this point, Russell still advocated a pre-emptive strike to prevent the Soviet Union from arming itself with nuclear weapons; cf. Monk, *Russell*, pp. 298-303.

⁷⁵ A. A. Meerlo, “Die Atomfurcht: Eine psychologische Interpretation,” *Psyche* 4.2 (1950), pp. 81-91, here pp. 85-86.

⁷⁶ Cf. Francis Rona, „Atomic Energy for Life and Progress,” *Peace News*, October 18, 1957; for West Germany cf. Nolte, *Ordnung*, especially pp. 391-402. He seems to overestimate the German peculiarities, however.

It is against this background that a veritable “atomic euphoria” began to push the fears of nuclear war and radiation from nuclear weapons to the margins of public discussions from the mid-1950s onwards.⁷⁷ There was agreement that “the atom” had, for better or for worse, become the hallmark of a new period in human history.⁷⁸ While enthusiasm was confined to those circles of the Labour Party who opposed CND,⁷⁹ the increasing focus on foreign and defense policy rather than nuclear tests within the movements explains why there were so few discussions about the dangers as well as the advantages of nuclear energy within the British movement.

The majority in both movements who agreed with the distinction of “peaceful” vs. “military” uses and with the specific conceptions of modernity and progress regarded the peaceful use of nuclear energy as a way to overcome the legacy of the Second World War and the Cold War. This was not a product of American propaganda, nor did it push the fear of nuclear weapons aside.⁸⁰ It was intimately related to very specific expectations of progress and of the future. Nuclear energy was, in this context, not merely a source of energy but a symbol for technological developments and opportunities for the nation more generally.⁸¹ While the general public discourses in both countries came, from the 1950s onwards, to be increasingly euphoric about the peaceful uses of nuclear energy, the skeptical and optimistic interpretations continued to sit side by side within the British and West German movements against nuclear weapons. It is the emphasis on planning in the discourses in both movements that provides the crucial link to the almost euphoric assessments of the peaceful uses of atomic energy in both countries amongst the majority of the movements’ vocal members. It places the movements squarely among the assessments of technological modernity and discussions about progress through planning in both countries at the time.⁸² While the military use of “the atom” would

⁷⁷ Cf. Bernd-A. Rusinek, “‘Kernenergie, schöner Götterfunken!’ Die ‘umgekehrte Demontage’. Zur Kontextgeschichte der Atomeuphorie,” *Kultur & Technik* 4 (1993), pp. 15-21.

⁷⁸ Stölken-Fitschen, *Atombombe und Geistesgeschichte*, pp. 166-167.

⁷⁹ Cf. Ben Pimlott, *Harold Wilson* (London, 1992), p. 273.

⁸⁰ This is the argument in Frank Schumacher, “‘Atomkraft für den Frieden’. Eine amerikanische Kampagne zur emotionalen Kontrolle nuklearer Ängste,” *Sozialwissenschaftliche Informationen* 30 (2001), pp. 63-71, especially pp. 69, 71.

⁸¹ Cf. Gabriele Metzler, “‘Geborgenheit im gesicherten Fortschritt’. Das Jahrzehnt von Planbarkeit und Machbarkeit,” in: Matthias Frese, Julia Paulus and Karl Teppe (eds.), *Demokratisierung und gesellschaftlicher Aufbruch. Die sechziger Jahre als Wendezeit der Bundesrepublik* (Paderborn et al., 2003), pp. 777-797, here p. 779.

⁸² Cf., for Germany, Michael Ruck, “Ein kurzer Sommer der konkreten Utopie – zur westdeutschen Planungsgeschichte der langen 60er Jahre,” in: Axel Schildt, Karl Lammers and Detlef Siegfried (eds.), *Dynamische Zeiten. Die 60er Jahre in den beiden deutschen Gesellschaften* (Hamburg, 2000), pp. 362-401. On Britain, cf. James Tomlinson, *The Labour Governments 1964-1970. Vol. 3: Economic Policy* (Manchester, 2004) and Alexander Schmidt-Gernig, “Die gesellschaftliche Konstruktion der Zukunft. Westeuropäische Zukunftsforschung und Gesellschaftsplanung zwischen 1950 und 1980,” *WeltTrends* 6 (1998), no. 18, pp. 63-84, here p. 69.

result in the impossibility of all planning, using nuclear energy peacefully could contribute to the more rational ordering of societies and thus to the efforts to overcome the legacies of war and destruction. This emphasis on the peaceful uses of atomic energy was also crucially linked to the changing Cold War climate of détente. The proponents of this view did not regard arms and military developments as the most important area of battle between East and West, but emphasized the areas of technology and culture instead.⁸³ This reading goes against interpretations which emphasize that activists did not want to be implicated in the contemporary society, an aspect that has also been regarded as characteristic of later environmental movements.⁸⁴

The distinction between peaceful and military uses of “the atom” was especially welcome on the political left, as it combined thinking about progress with utopianism. Here, it was linked to the conviction that the future could be designed and planned.⁸⁵ Although the precise ideas of planning within the movements and between the countries differed, we can find similar arguments in Britain and West Germany:⁸⁶ while the military use of nuclear energy would make such planning impossible, its peaceful use would allow planning for better a society. Historians usually situate this process only in the period after the Partial Test-Ban Treaty in 1963, but, as this analysis has made clear, it already can be found in the period directly after the Geneva Summit.⁸⁷ It is also striking that nuclear enthusiasm in the West German movement was much stronger than in the British one.

Thus, atomic euphoria in West Germany was particularly pronounced in the SPD, which explains the coexistence of skepticism and enthusiasm about “the

⁸³ Cf. Gabriele Metzler, *Regieren in der modernen Industriegesellschaft. Konzeptionen politischen Handelns in der Bundesrepublik von den fünfziger Jahren bis zu den siebziger Jahren* (unpublished habilitation thesis, Tübingen, 2003), pp. 65-66.

⁸⁴ Cf. Parkin, *Middle Class Radicalism*, p. 187. For more recent environmental movements, cf. Stephen Cotgrove and Andrew Duff, “Environmentalism, values, and social change,” *British Journal of Sociology* 32 (1981), pp. 92-110, here p. 102.

⁸⁵ Cf. Lucian Hölscher, *Die Entdeckung der Zukunft* (Frankfurt, 1999), pp. 174-197 and pp. 219-223.

⁸⁶ On these different ideas and their intellectual roots, cf. Michael Kenny, *The First New Left. British Intellectuals after Stalin* (London, 1995), pp. 119-167 and Siegwald Lönnendonker, Bernd Rabehl and Jochen Staadt, *Die antiautoritäre Revolte. Der Sozialistische Deutsche Studentenbund nach der Trennung von der SPD, Vol. 1: 1960-1967* (Wiesbaden, 2002), pp. 243-246. On continuities of planning in Germany, cf. Dirk van Laak, “Zwischen ‘organisch’ und organisatorisch’. ‘Planung als politische Leitkategorie zwischen Weimar und Bonn,’” in: Burkhard Dietz, Helmut Gabel and Ulrich Tiedau (eds.), *Griff nach dem Westen. Die ‘Westforschung’ der völkisch-nationalen Wissenschaften zum nordwesteuropäischen Raum (1919-1960)* (Münster, 2003), pp. 67-90, here pp. 76-89. For Britain, cf. Jose Harris, “‘War Socialism’ and its Aftermath: Debates about a New Social and Economic Order in Britain, 1945-1950,” in: Dominik Geppert (ed.), *The Postwar Challenge 1945-1958* (Oxford, 2003), pp. 179-188.

⁸⁷ Cf. Gustav Schmidt, „Strukturen des ‘Kalten Krieges’ im Wandel,“ in: Vojtech Mastny and idem, *Konfrontationsmuster des Kalten Krieges 1946 bis 1956* (Munich, 2003), pp. 3-380, here p. 376.

atom” in the SPD’s Campaign against Atomic Death.⁸⁸ Many voices from within the party and the movement regarded nuclear energy as important means to deal with the rapid growth of world population and to enable developing nations’ economic progress by allowing them to partake in the energetic potential of “the atom.”⁸⁹ The United States was seen as a leader in this field: it had already managed to tame the atom for peaceful uses so that the “future had already begun” there, as Robert Jungk, himself very active in the international anti-nuclear weapons campaigns, observed.⁹⁰ This positive image of the “peaceful atom” also had a particular resonance amongst those within the West German movement and within West German society more generally who did not agree with the emphasis on planning. Advocating the civilian uses of atomic energy could serve as a symbol for the peaceful intentions of the young Federal Republic.

Due to the World War and Cold War experiences, movement discussions in both countries focused on the dangers of nuclear energy, primarily along military lines. There were only localized debates about the building of nuclear reactors in Germany, which remained largely unopposed on a national level.⁹¹ In Britain, the release of fission products from the plutonium plant Calder Hall, Windscale, on 8 October 1957 was hardly noticed in the British population and in the protest movement: the government kept most of the details secret, thus preventing communication about the problem.⁹² A review article in one of the British movement’s journals merely mentioned „a recent mishap at the Windscale Plutonium Factory,” but did not take it as an opportunity to elaborate on the dangers of the civilian uses of nuclear energy.⁹³

Yet the evidence of atomic euphoria and limited concern about the civilian uses of nuclear energy should not be taken as evidence for the end of concern about nuclear weapons or for a lack of awareness of the dangers connected

⁸⁸ Cf., for example, the memorandum about the exhibition “Atom-Fluch oder Segen,” Frankfurt/Main, Römerhallen [n.d., November 1958]: AdsD 2/PVAM000027.

⁸⁹ Cf. Leo Brandt, *Die zweite industrielle Revolution*, edited by Vorstand der SPD (Bonn, 1956); *Neue Gesellschaft. Sonderheft: Der Mensch im Atomzeitalter* (1956); cf. also Fritz Erler, “An der Schwelle des Atomzeitalters,” *Die Neue Gesellschaft* 2.1 (1955), pp. 3-9; Fritz Baade, *Weltenergiewirtschaft. Atomenergie – Sofortporgramm oder Zukunftsplanung?* (Hamburg, 1958), p. 172. However, Baade was aware of the problems; cf. his article “Weltbevölkerung und Weltenergiewirtschaft,” *Außenpolitik* 8 (1957), pp. 229-237, here pp. 232-233.

⁹⁰ Robert Jungk, *Die Zukunft hat schon begonnen. Amerikas Allmacht und Ohnmacht* (Stuttgart and Hamburg, 8th ed., 1953) [1952], p. 20; published in English as *Tomorrow is Already Here* (London, 1954); Robert Jungk, Draft for the Charter of Hope [n.d., early 1959]: Hans Werner Richter-Archiv, *Stiftung Archiv Akademie der Künste*, Berlin: 72.86.512, fol. 369.

⁹¹ Stölken-Fitschen, *Atombombe und Geistesgeschichte*, pp. 200-201.

⁹² Antoinette Pirie (ed.), *Fall Out. Radiation Hazards from Nuclear Explosions, rev. ed., incl. a report on the Windscale disaster and an analysis of the United States Congress report on radioactive fall-out and its effects on man* (London, 1958).

⁹³ James Topping, “Finding out about Radiation,” *Peace News*, January 3, 1958, p. 7.

with nuclear energy. In 1957, West German opinion polls found that 60% of the population was worried about health dangers to future generations. In 1961, 86% thought that way.⁹⁴ While two-thirds of West German adults had connected nuclear energy with “bombs, war, annihilation” in a 1955 poll, only 8% of those polled in 1958 favoured atomic energy, with 17% fearing that its use could lead to “atomic war.”⁹⁵ The British population appears to have been equally aware of the dangers of nuclear weapons, albeit less pronouncedly so.⁹⁶ Even after 1960, Robert Jungk continued to publish about the dangers of nuclear weapons, as did Karl Bechert. Similarly, the Munich Committee for Nuclear Disarmament alerted its members and the public to the dangers of nuclear weapons, although it still primarily focused on the dangers of nuclear weapons, rather than nuclear energy in general. Günther Schwab, for example, in his book *Dancing with the Devil (Tanz mit dem Teufel)* drew an apocalyptic picture of the uses of atomic energy. The book, which tells the story of “Satan” who sets out to poison the earth, had gone through ten editions by 1972. In one scene, the problems of atomic radiation in the event of an explosion in a nuclear power plant are discussed. This explosion would lead to a “death-inducing radiation up to 80 kilometres away.”⁹⁷

The main groups who did not fall for the “atomic euphoria” of the time were those on the margins of the West German movement who maintained a cultural pessimism against technology more generally. Politically, they had a national-neutralist standpoint.⁹⁸ Those skeptical of both the military and peaceful uses of atomic energy centered around the *Kampfbund gegen Atomschäden*, the “Fighting League against Atomic Damages,” which was affiliated with the SPD-run Campaign and the Munich-centered “Committee against Nuclear Armaments.” It campaigned against “atomic dangers” as dangers “caused by civilisation,” thus using a rather conservative rhetoric.⁹⁹ The League had been founded in July 1956 by the head physician of the Detmold hospital, Dr. Bodo Manstein, who was a member of the Free Democratic Party (FDP). It was joined by several veteran organizations as well as by the movement for the Health of the

⁹⁴ *DIVO-Pressdienst*, May I – 1958, pp. 13-14; August I – 1960, pp. 10-11; October I – 1961, pp. 8-10; January II – 1962, p. 13.

⁹⁵ Brüggemeier, *Tschernobyl*, p. 206.

⁹⁶ Cf. the March 1958 Gallup poll in which 51% of respondents thought that scientific advances would, in the long run, help man, 24% thought they would do harm, and 25% held no firm opinion on the subject. Cf. *Gallup International Opinion Polls*, p. 458.

⁹⁷ Günther Schwab, *Der Tanz mit dem Teufel. Ein abenteuerliches Interview* (Hanover, 1958), pp. 458 ff.

⁹⁸ On national neutralism, cf. Alexander Gallus, *Die Neutralisten. Verfechter eines vereinigten Deutschlands zwischen Ost und West 1945-1990* (Düsseldorf, 2001), pp. 94-152. On cultural pessimism cf. van Laak, “Das technokratische Momentum,” p. 95.

⁹⁹ Cf. “Vorläufige Ideen zu einem Grundsatzprogramm von Herrn Dr. Bodo Manstein,” enclosure to a circular by the Munich Committee against Atomic Armaments, April 24, 1961: AdsD, DGB-Archives, Abteilung Organisation 24/9006.

German People (*Deutsche Volksgesundheitsbewegung*).¹⁰⁰ Its publications emphasized the humanitarian and moral aspects of the use of atomic energy. Its rhetoric had Christian overtones. Humans had played tricks against nature, which would strike back.¹⁰¹ Through its journal, *The Conscience* (*Das Gewissen*), with its subtitle, “Organ for fighting atomic misuse and atomic damages,” the League reached a wider middle-class audience, especially the one centered around the Munich Committee.¹⁰² In the journal, we can find ideas of a peaceful warriorhood, of righteousness and of disease, reminiscent of National Socialist language.¹⁰³ “Atomic plague” and “atomic epidemic” were its central terms. The self-defined task of the League was to “shake all human beings until they are awake ... before the earth with which they have been entrusted has become a crater and a field of epidemics of a lunatic suicidal atomic war.”¹⁰⁴ Others who warned of the dangers of the peaceful uses of atomic energy were, by contrast, less concerned about environmental hazards, but, rather, primarily worried about a secret atomic armament of the Federal Republic. They argued that the British example showed that military and civilian uses could not be clearly separated.¹⁰⁵

Conclusion

Cold War developments, experiences of World War II and fears of military applications left a marked imprint on the discussions about nuclear energy within the anti-nuclear weapons movements in both countries. As the social movements communicated these dangers to their respective societies, these findings have implications for our interpretations of the environmental awareness of the British and West German populations in general. Awareness of the dangers of radioactivity was strong throughout the period, but the movements’ discourses focused primarily on military uses. It was in this context that a discussion about the peaceful uses of “the atom” could emerge that did not push the awareness of dangers aside, but merely reduced its salience. This was particularly the case after the danger of fall-out from tests seemed to have been averted through the Partial Test-Ban Treaty of 1963. Only those who did not

¹⁰⁰ For the League’s charter cf. *Institut für Zeitgeschichte*, Munich, ZGn 363. Cf. also Bodo Manstein, “Atom bedroht die Welt,” edited by the Kampfbund gegen Atomschäden (Detmold, 1957). For organization and actions cf. Rupp, *Außerparlamentarische Opposition*, pp. 70-72.

¹⁰¹ “Atomangst,” *Weserkurier*, June 27, 1956.

¹⁰² Cf. Rupp, *Außerparlamentarische Opposition*, p. 70.

¹⁰³ Cf. Victor Klemperer, *The language of the Third Reich: LTI, lingua tertii imperii. A philologist’s notebook* (London, 2000).

¹⁰⁴ Wolfgang Bartels, “Die Atomseuche geht um,” *Das Gewissen* 1 (1956), no. 2

¹⁰⁵ Cf. Willy Huhn, “Atomenergie. Friedliche Nutzung oder Mittel der Vernichtung?,” in: *Wir sind jung* 3 (1957), pp. 3-4 and 4 (1957), pp. 2-4.

accept the distinction between “peaceful” and “military” nuclear energy and those who did not agree with the notion of progress connected with these peaceful uses were opposed to all kinds of use of nuclear energy.

Both debates were affected crucially by the changing parameters of the Cold War, which moved from military confrontation to accommodation during this period. The specific national features of the debates cannot be ignored, however. In West Germany, both fear and enthusiasm were much more pronounced than in Britain throughout these years. This had to do with the much greater impact that the Cold War left on West German society. In addition, West Germany’s discussions were framed crucially by the experiences of chaos and destruction during the Second World War, which slowly receded during this period,¹⁰⁶ and by the attempts to define an identity for the new West German state. Both endowed the West German movement with an apocalyptic rhetoric that it bequeathed to its successors in the 1970s and 1980s. Discussions about planning and rationality underlay these self-observations of society in both countries. They changed from a predominantly existentialist mode to a more empirical-pragmatic one that started to dominate discussions from the early 1960s onwards. Although no large-scale protests against nuclear energy emerged in either country during this period, there was clearly an awareness of the dangers – an awareness that played a crucial role for the environmental movements of the 1970s, even though they operated within different social, political and international contexts.¹⁰⁷ We cannot understand the emergence of wide-scale environmental protest in the 1970s and 1980s without examining the first period of awareness in the 1950s and 1960s.

¹⁰⁶“Mit dem Atom leben – ja, aber wie?,” *Das Gewissen* 3 (1958); Peter Nellen, “Mit der Atombombe leben?,” *Gewerkschaftliche Monatshefte* 11 (1960), pp. 65-74; Gert Burkhardt, “Mit der Bombe leben?,” *Kongreßdienst*, December 1960.

¹⁰⁷ Cf. the thought-provoking analysis from a Swiss perspective by Patrick Kupper, “Die ‘1970er Diagnose’. Grundsätzliche Überlegungen zu einem Wendepunkt der Umweltgeschichte,” *Archiv für Sozialgeschichte* 43 (2003), pp. 325-348, here pp. 338 and 346.