

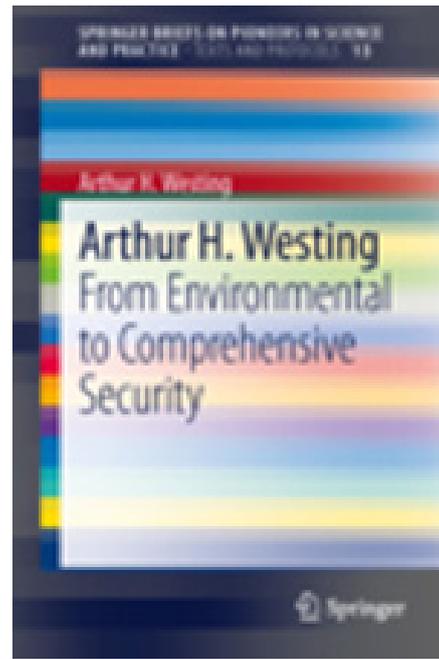
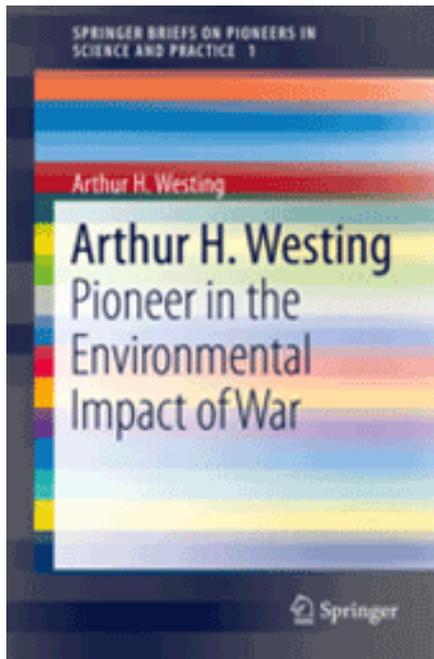
Obituary on Arthur H. Westing (1928-2020)



Other Obituaries

- VT digger (2020): Arthur Westing, scientist, teacher, author, and environmental activist < <https://vtdigger.org/obituary/arthur-westing-scientist-teacher-and-author/> >
- PRIO (6 May 2020): In memoriam: Arthur H. Westing (1928–2020) <<https://blogs.prio.org/2020/05/in-memorial-arthur-h-westing-1928-2020/>>
- SIPRI (8 May 2020): Former SIPRI Researcher Arthur H. Westing—in memoriam < <https://www.sipri.org/media/2020/former-sipri-researcher-arthur-h-westing-memorial>>
- Vietnam Full disclosure (30 May 2020): Arthur Westing (1928-2020), Scientist who Studied Agent Orange Impacts <<https://www.vietnamfulldisclosure.org/arthur-westing-rip/>>





AFES-PRESS: <http://www.afes-press-books.de/html/SpringerBriefs_PSP01.htm>

Springer: <<https://www.springer.com/gp/book/9783642313219>>

Springer: <<https://www.springer.com/gp/book/9783319006864>>

Besides his two books of 2013 on the occasion of his 85th birthday I had published in 2003 a book chapter by Arthur H. Westing: “Environmental Dimension of the Gulf War of 1991” in: Hans Günter Brauch et al.: *Security and Environment in the Mediterranean. Conceptualising Security and Environmental Conflicts* (Berlin – Heidelberg – New York: Springer-Verlag): 523-534.

Lecture: by Arthur H. Westing at the World without Walls conference of the Institute on Cultural Diplomacy in 2010:

<<https://www.vietnamfulldisclosure.org/arthur-westing-rip/>>



Obituary on Arthur H. Westing: A Pioneer in the Study of the Environmental Impacts of War by Hans Günter Brauch

I have known Arthur H. Westing since the late 1970s or early 1980s when he was working at the *Stockholm International Peace Research Institute* (SIPRI) as a director of a project on the environmental impact of war that was later transferred to the *International Peace Research Institute in Oslo* (PRIO) with the many books he authored and edited during this time he became the single and most important “Pioneer in the Study of the Environmental Impacts of War”.¹ His pioneering scientific fieldwork since the late 1960s on the use of defoliants by US and allied forces in the War in Southeast Asia has influenced not only the scientific research and writing of many younger scholars in both peace research and in environmental studies but it also had a significant impact on the internal debate in the United States and the increasing public opposition to the Vietnam War.

The scientific work of Arthur H. Westing and of several other of his colleagues, especially E.W. Pfeiffer persuaded the US military to stop the use of Agent Orange and it influenced the US Administration to submit and the U.S. Congress to ratify in 1975 the Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or other Gases, and of Bacteriological Methods of Warfare. Arthur H. Westing’s work in the early and mid-1970s in the USA and since 1976 in Stockholm and later Oslo also influenced the debates in the United Nations that contributed to the adoption of several international conventions and treaties, most particularly the Biological Weapons Convention (1972), the Environmental Modification Treaty (1977) and the first Geneva Protocol on the Protection of Victims of International Armed Conflicts (1977) during the détente period of East-West relations. Jürgen Brauer (2009: 45ff.) wrote in *War and Nature* that the literature on the environmental effects of the second Indochina war “is, to a large extent, written or mediated by a single, formidable researcher, Arthur H. Westing.” He correctly concluded that “Westing may well be regarded as the father of the modern, continuous interest in the environmental effects of war.”

My own German publications on chemical and biological warfare and on disarmament were stimulated by the many extremely innovative and valuable books and articles written by Arthur H. Westing and by the many acquaintances and personal discussions I had with him during the past four decades. As a biologist and forester, Arthur H. Westing has combined in his long and distinguished scientific career, his knowledge in forestry, botany, ecology and conservation with the social responsibility of a scientist who together A. W. Galstan (Yale University), E.W. Pfeifer (University of Montana) not only produced the scientific evidence of the misuse of scientific knowledge in warfare but Arthur H. Westing and Matthew Meselson (Harvard University) also convinced the US Ambassador in Vietnam Ellsworth Bunker when they informed him about their findings “of the massive ecological and agricultural damage and possible human poisonings” that he ordered “a rapid end of the US herbicidal chemical warfare”.

As a postdoctoral fellow at Harvard (1978) and as an active member of the Pugwash Movement (1976-1992) I had met Mathew Meselson and many other natural scientists who contributed their scientific knowledge and concerns as citizens to constrain the misuse of their knowledge in warfare and to work for legally binding international arms control and disarmament treaties. Several scientists I met during the conferences and symposia organized by the Pugwash movement considered it as their patriotic duty during World War II and

¹ This text is based on my introductions to Westing’s vol. 1 and 13 in the Springer Series on Pioneers in Science and Practice: Arthur H. Westing: *Arthur H. Westing: Pioneer on the Environmental Impact of War* (Heidelberg – Dordrecht – London – New York: Springer-Verlag, 2013); Arthur H. Westing: *Texts on Environmental and Comprehensive Security* (Heidelberg – New York – Dordrecht – London: Springer-Verlag, 2013).

during the Cold War to contribute their scientific knowledge – e.g. in American, British and Russian nuclear weapons programs but once the war had ended many of these American scientists founded and were involved in the Federation of American Scientists, the Union of Concerned Scientists, the Society for the Social Responsibility of Science to get involved in the political debate on nuclear, biological and chemical disarmament.

Westing's career has been different. He had never been involved in the development of weapons of mass destruction. His interest in plants, animals and nature started when he was a boy scout and studied botany at Columbia University (BA 1950), when he had to interrupt his studies and become a soldier during the Korean War (1950-1954) and later gained practical experience with the US Forest Service (1954-1955) where he conducted field research “on means to kill unwanted hardwood ... trees through the use of herbicides” that were later called Agent Orange by the military. As a soldier in Korea he gained field experience on the environmental disruption of warfare, and as a forester he gained practical experience of the use of herbicides, many years before Rachel Carson's book *Silent Spring* (1963) was instrumental for initiating a global debate on the negative human intervention into nature, especially through the use of chemicals (dioxin) to optimize the economic output of forest and other plantations.

His work as a forest biologist had sensitized Arthur H. Westing in 1969 to join wildlife biologist Pfeiffer “to verify onsite the increasing rumors of environmental devastation of forest and agricultural areas by aerially applied herbicidal anti-plant chemical warfare agents” that was then kept secret by the US government. At the invitation of the government of Cambodia, Westing and Pfeiffer could first visit the attacked sites in December 1969 and January 1970. Based on their onsite investigations during six additional field visits to South East Asia with Pfeiffer and later with Meselson they examined and reported also on crop destruction and the serious environmental damage by high-explosives. Arthur H. Westing has documented the impact their findings had on the scientific community, on the US media and also on the US government and on other political leaders (like Olof Palme).

Based on this early scientific and field experience, Arthur H. Westing was invited by SIPRI to write a major report on his wartime findings that was published in *Ecological Consequences of the Second Indochina War* (1976) and subsequently to head a UNEP project on “Peace, Security, and the Environment”. As a result of this long-term project at SIPRI and PRIO, Arthur H. Westing authored and edited a series of major books and reports on: *Weapons of Mass Destruction and the Environment* (1977); *Warfare in a Fragile World: Military Impact on the Human Environment* (1980); *Environmental Warfare: A Technical, Legal and Policy Appraisal* (1984); *Explosive Remnants of War: Mitigating the Environmental Effects* (1985); *Global Resources and International Conflict: Environmental Factors in Strategic Policy and Action* (1986); *Global Resources and International Conflict: Environmental Factors in Strategic Policy and Action* (1986); *Cultural Norms, War and the Environment. Military Activities and the Human Environment* (1988); *The Environmental Hazards of War: Releasing Dangerous Forces in an Industrialized World* (1990); *Effects of Chemical Weapons on Human Health and the Environment* (1992'1); *Environmental Warfare: Manipulating the Environment for Hostile Purposes* (1997) and in addition he published during the past four decades many book chapters and articles in both scholarly and policy-oriented journals and in major dailies, including the *New York Times* that are documented below in his selective bibliography and online in his comprehensive bibliography.

Arthur H. Westing's scientific work also influenced the work of many international organizations (UN, UNESCO, UNEP, UNIDIR) but it also raised the awareness of major non-governmental organizations, such as the *International Committee of the Red Cross* and indirectly also the *International Campaign against Landmines* that also had an impact on the

Anti-personnel Land Mine Convention that was led by Canada and Norway and out of which evolved the human security network (HSN).

As a professor of forestry, biology, botany and ecology at Purdue University (1958-1964), at the University of Massachusetts (1964-65), at Middlebury College (1965-66), at Windham College (1966-1976), at Hampshire College (1978-1983), and at the European University Centre for Peace Studies (1989-2002) he introduced and inspired thousands of students in several disciplines. When he was working at SIPRI and PRIO, Arthur H. Westing has also been a conceptual innovator in many other scientific debates, especially on environmental, human and comprehensive security and on the development of legal norms to stop the use of herbicides, the use of environment modification techniques, of anti-personnel landmines and on cluster bombs.

I have known Arthur H. Westing for about forty years as a highly respected, innovative and critical natural scientist, environmentalist and peace researcher who had a deep influence on my own work as a political scientist who has worked for two decades on weapons technologies, the misuse of scientific knowledge for warfare and on arms control and disarmament initiatives and policies.

As a scientist and concerned citizen Arthur H. Westing through his scientific work and policy consultancy has lived what social responsibility of science stands for to care about human beings and nature, to constrain the military interference and damage to nature with often long-term effects on the food chain in the affected areas in Southeast Asia and on generations of children in the countries that were affected by the spraying of herbicides (Agent Orange et al.) but also of soldiers from the USA and allied countries whose children had serious genetic defects. Their parents have fought for years in vain to obtain a financial compensation for the long-term health effects many soldiers later experienced after they had been involved in the use of these deadly chemical weapons. The greatest success of Arthur H. Westing and his colleagues was that they could convince Ambassador Bunker to stop the use of defoliants in the war in South East Asia. But the US military was not willing to forgo the use of herbicides in future wars as some reservations to the BWC and the CWC indicate and other less dangerous defoliants have been massively employed by US forces in the drug war in Colombia.

Arthur H. Westing has been a *Pioneer in the Study of the Environmental Impacts of War* in his several roles during the six decades of his professional life:

- as a *natural scientist* he has studied since the mid 1950's the use of defoliants in forestry and through his seven field trips to south East Asia since 1969 until the early 1970s he and his colleagues Pfeifer and Meselson they developed the first scientific evidence on the negative impact of the massive spraying of Agent Orange and other chemical warfare agents;
- as a *professor* and *educator* he conveyed not only scientific knowledge but also a sense of social responsibility natural scientists have on the national and international level;
- as a *concerned American citizen* he and his colleagues took the courage to raise awareness both of the scientific community and of the public at large about a secret military operation of US and allied forces during the second war in Southeast Asia;
- as an *environmentalist* and *ecologist* he created awareness on the human interference into nature through the uncritical use of scientific knowledge to warfare;
- as a *peace researcher* he put the environmental impacts of war on the research agenda of both critical peace and environmental studies and thus created a new field of multidisciplinary scientific endeavor;
- as a *policy consultant* he succeeded to put the environmental impacts of warfare on the agenda of many international governmental and nongovernmental organizations;
- as a *politically active scientist and citizen* he became a "Vorbild" for many young scientists but also for policy makers to take the courage not to remain silent on the misuse of

scientific knowledge in warfare or for increasing short-term economic benefits and ignoring the longer term effects on the life of present and future generations.

As I followed Arthur H. Westing's work for about four decades, he has deeply impressed me though his modesty, personal integrity, social responsibility as a scientist, his creating public awareness and having dual impact on the policies of his country, on the evolution of international legal norms and on sensitizing future generations of scholars. Arthur has not only been a pioneer on the environmental impact of war, but also a major innovative contributor since the 1980s to a conceptual scientific discourse and policy debate on a 'reconceptualization of security' at a time when the Cold War was winding down and that discourse has been underway ever since.

Arthur's innovative contribution was primarily to the 'widening' of security by bringing — as a forest ecologist and environmental scientist — environmental considerations into the evolving policy debate on national and international security. He addressed simultaneously the two sides of the same coin: (a) of the environmental impact of war; and (b) of the environmental causes of or impacts on multiple forms of conflict. He framed 'environmental security' initially as a state-centered concept and gradually moved to what he called 'comprehensive human security', taking up recent critical suggestions.

Several of his early contributions inspired me to launch a global multi-disciplinary project on the 'Reconceptualization of Security'. He introduced environmental factors to national, international and regional security. Arthur used the term 'human security' in a United Nations Environment Programme publication of 1993, a year before Mahbukul Haq triggered a global debate on human security in the United Nations Development Programme's annual report on human development. As a forest scientist, Arthur was familiar with the debates in the environmental, security, and peace research communities and could thus contribute to conceptual bridge-building among those diverse fields.

I met Arthur for the last time in November 2010 at an international conference in Berlin on 'A World Without Walls' where he presented a paper on the 'Korean Demilitarized Zone (DMZ) as a Bridge between the two Koreas' where he began by comparing several divided countries (Germany, Yemen, Korea). He suggested then to protect the DMZ as a 'confidence and security-building measure', a proposal he developed into a proposed text for a treaty. This lecture can be listened to here: <<https://www.vietnamfulldisclosure.org/arthur-westing-rip/>>.

In short, Arthur has been a *conceptual and empirical innovator* in his several roles during the six decades of his professional life: (a) as a *natural scientist*; (b) as a *professor and educator*; (c) as a *concerned US citizen*; (d) as an *ecologist and environmentalist*; (e) as a *peace researcher*; (f) as a *policy consultant*; and (g) as a *politically active scientist and citizen*. He thus became a *Vorbild* for many young scientists to take the courage not to remain silent on the misuse of scientific knowledge in warfare. This is what the notion of 'sustainable development' is all about, as suggested by the Brundtland Commission. Arthur H. Westing needs many followers to move towards policies of a transition to sustainability during this century to avoid the security impacts of global environmental change, of biodiversity loss, and of chaotic interactions within the earth system that could result in tipping points endangering the lives and livelihoods of millions of people.

Mosbach, 11 September 2020
Hans Günter Brauch