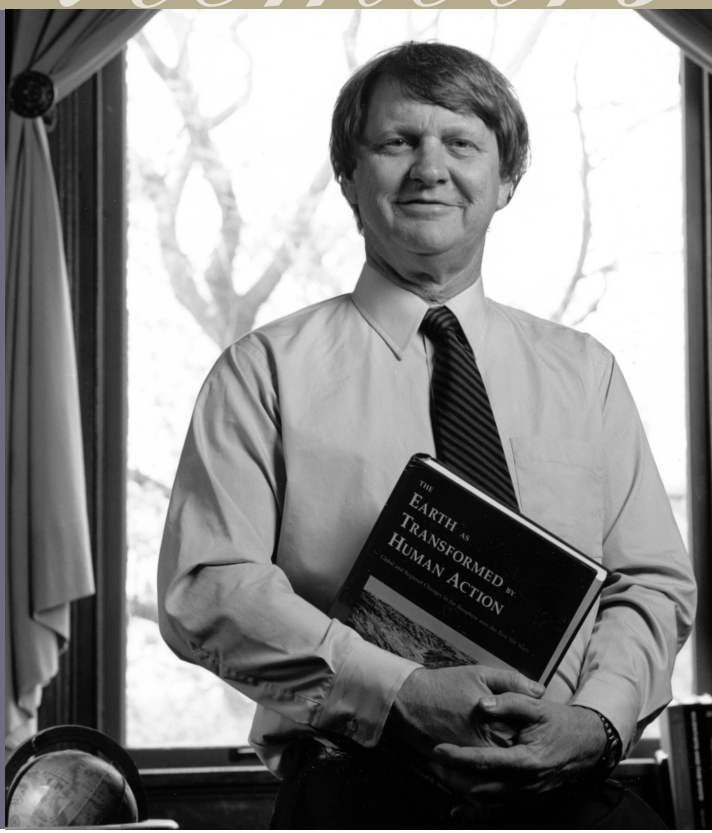
# Roger E. Kasperson

1938-2021

BIOGRAPHICAL *Memoirs*

*A Biographical Memoir by by B. L. Turner II, Kirstin Dow, and Susan Hanson*






NATIONAL ACADEMY OF SCIENCES

# ROGER EUGENE KASPERSON

*March 29, 1938- April 10, 2021*

Elected to the NAS, 2003

Roger E. Kasperson, a geographer by education, was a preeminent scholar of the analysis and communication of risk and a pivotal craftsman of the concept of the social amplification of risk. He initiated technological risk assessments, including risk equity, served in major leadership roles internationally dealing with risk, environment, vulnerability, and sustainability, and applied his expertise to inform government agencies about risks, risk perception, and management of nuclear technologies.

Courtesy of Clark University Archives & Special Collections.

*By B. L. Turner II, Kirstin Dow, and Susan Hanson*

Kasperson graduated with a B.A. in geography, cum laude with honors, in 1959 from Clark University and with an M.A. (1962) and Ph.D. (1966) in geography from the University of Chicago. He launched his doctoral studies focused on political geography, but gradually turned to the field of natural hazards research, with its focus on the interactions between environment and society. After serving as an instructor at Bridgewater State University and at the University of Connecticut, and a short stint as an assistant professor at Michigan State University, he took a joint position in the government and geography departments at Clark in 1968, one that he would hold for 36 years, with time off to serve as Executive Director, Stockholm Environment Institute, from 2000 to 2004. He also served as Dean of the College, 1971-1974, and provost and vice-president of Clark from 1997 to 2000. While a faculty member at his alma mater, he shifted his research to urban water policy and, subsequently, to risk analysis and management, primarily of technology but also in relation to environmental and climate change. He would follow these topics throughout the remainder of his professional life—collaborating throughout with Jeanne Kasperson, his wife, a risk-hazard librarian and fellow researcher.

Roger Kasperson was born and grew up on a small farm in Northborough, Massachusetts. The first in his family to attend college, he received a scholarship to nearby Clark

University, where he excelled academically and courted and upon graduation in 1959 married a fellow Clark student, Jeanne Xanthakos. They were both accepted for graduate studies—Roger in geography and Jeanne in English—at the University of Chicago. Jeanne completed her M.A. in 1961 (with an M.L.S degree, Simmons College, 1967), and Roger an M.A. and Ph.D. in 1962 and 1966, respectively.

Roger and Jeanne's teamwork proved significant throughout their careers, as Jeanne would create a research library for Clark's Center for Environment, Technology and Development (CENTED), a research center founded by Roger and Clark colleagues from various departments. Jeanne also participated as a research colleague in many of activities undertaken at CENTED, which was later became the Marsh Institute. Now the Jeanne X. Kasperson Library of the Marsh Institute, the former CENTED library, still supports the hazard, risk, development, and sustainability research in the Institute.

Throughout his career, Roger was never circumscribed by the limits of his doctoral discipline. He examined complex, cross-disciplinary problems involving human-technological and human-environmental systems, drawing together groups of scholars motivated to work beyond narrow disciplinary silos and to brainstorm how problems might best be entertained and understood from multiple perspectives. Because the research questions that interested him crossed disciplines and often engaged science policy and management, Roger reached broad and diverse audiences via integrative outlets through his service on numerous federal agency and NAS committees and their resulting reports. Jeanne and he attempted to instill this breadth of audiences during their co-editorship (2000-2003) of the Nature and Society section of the *Annals of the Association of American Geographers* (now *American Association of Geographers Review*).

When Roger joined the Clark faculty, he reconnected with Robert Kates, a former fellow grad student, who was galvanizing interdisciplinary research on societal responses to hazards and who shared Roger's beliefs in integrated approaches to human-environment problems and in research aimed at helping meet societal needs. A Clark physicist, Dr. Chris Hohenemser, challenged Roger and Kates to apply their natural hazards framework to the problem of the use of nuclear fuels. That challenge would lead to a set of research interests that Roger would follow for the remainder of his career, dealing with the causal structure of risk (initially, technological risks) and the ethics and values associated with societal strategies to address risk.

Despite the creation of an organization called the Society for Risk Analysis in 1980, the state of its science was fragmented in the mid-1980s, with no integrating framework.

Building off the concept of "risk signals" developed by Paul Slovic (NAS), Roger, Slovic, and the Clark/CENTED-based team developed the concept of the social amplification of risk. Perhaps Roger's most-lasting legacy, this concept identified "social stations" (for example, opinion leaders, agencies, news media) that were either proactive or reactive to risk events and that processed and interpreted their social meaning in ways that either amplified or attenuated the risk involved. Drawing on this concept and others emanating from his research, federal agencies involved Roger and the linked-risk community in many important issues and problems of the day. Among these was work on the risks of nuclear waste storage proposed for Yucca Mountain in Nevada and emergency planning for Three Mile Island after its meltdown crisis in 1979. For these activities and his various research contributions, Roger was elected a fellow (1995) and president of the Society of Risk Analysis (1999-2000).

When CENTED became the George Perkins Marsh Institute in 1991, Roger began to take his risk experience to questions of global environmental change and sustainability in several ways, working with another one of us (BLT) in several efforts. Consistent with the "place-based" assessments advanced by geography-and-sustainability science and following the view that universal panaceas to achieve sustainability were unlikely, Roger and Jeanne envisioned that systematic, comparative studies of *Regions at Risk* (1995) to various forms of anthropogenic-induced climate change would enhance understanding of the variable dynamics at play and, perhaps, yield broad insights about risk and vulnerability. They were also instrumental in the development of the conceptualization of vulnerability within sustainability science, in which the social-environmental system, including the biophysical subsystem itself, is vulnerable to perturbations (hazards), thereby asserting a more integrated systems view beyond the focus on social subsystems that had long been the focus of risk and disaster vulnerability research.

The research practice at CENTED and on subsequent national and international teams followed an informal but consistent path. A cluster of researchers, usually "kindred spirits" from various disciplines, almost always involving biophysical and social scientists and their graduate students, would come together. Discussions of potential research issues and approaches would ensue, guided either by broader themes proposed by sponsoring agencies or by the specific interests of the research group. Problem formation typically entailed a series of research-miniseminars-cum-discussions to hone the problem, led by Roger, with Jeanne participating and identifying sources of literature that should be examined. In this process, a winnowing down of the research team would follow, given

the various interests and available time that participants could give to the emerging team exercise.

Roger teaching a class, wearing his usual hat.
(Courtesy of B.L. Turner II.)

The culture of collaboration, serious problem solving, and hard questioning was a rich learning environment, particularly for graduate students, whom Roger and Jeanne supported with a warm sort of tag team mentoring between offices and the library and from research questions to immersive reading and editorial guidance. Exhaustive literature reviews would take place as the team calculated the content of problem solutions and future challenges. In some cases, extensive field observations were undertaken, such as that on Three Mile Island. For some 85 publications Roger would write first drafts with which Jeanne would then engage as research editor, generating large numbers of questions and issues to address. On papers involving others leading the drafts, Jeanne played the same role. They served as co-editors on eight edited volumes and co-authors of about a quarter of Roger's numerous publications. Their close collaboration lasted until Jeanne's death in 2002. For her roles, Jeanne was honored by *Who's Who of American Women* and *Who's Who in American Education*.

Although Roger became an emeritus Distinguished Research Professor at Clark University in 2004, his change in title did not signal a retirement from research, collaboration, service, or encouraging efforts to push forward on hard questions remaining around his interests. "Risk Conundrums" (2017) edited by Roger, emerged out of an honorary symposium for him, which, according to his strong wishes, was a time to gather again with colleagues and former graduate students and do some "good thinking" about what progress we had made on collective areas of interest. Guided by Roger, as he had done so frequently, the conversations focused on identifying the remaining hard challenges for risk management, the perplexing confusing conundrums that escape easy resolution. As author teams (54 individuals) received Roger's editorial feedback and compared notes, the consistent advice was "be provocative," with the goal not of presenting final ideas but to "create entry points for dialogue into how conflicting challenges and perplexities around risk might be addressed" (Kasperson and Moser 2017:3).

In his last major project, a special issue of *Risk Analysis* entitled "Social Amplification of Risk: New Perspectives" (2022), he convened his colleagues again to push forward from this foundational framework to consider the implications of new risks and communications practices, including "vaccine hesitancy" associated with COVID-19, the role of social media, and perceptions of systemic risks. The effort was completed by Roger's second wife and collaborator, Bonnie Ram.

Roger's service to the National Research Council, before and after his election to the National Academy of Sciences in 2003, was phenomenal. He served on or chaired 24 committees, including those on Radioactive Waste Management, State and Federal Roles in Energy Emergencies, Climate Change and Water Resources, Human Dimensions of Global Environmental Change, Review of the Department of Homeland Security's Approach to Risk Analysis, Board on Environmental Studies and Toxicology, and Decision Making Under Uncertainty. For similar activities of the NAS-NRC, Roger's expertise would invariably be considered and often called upon.

From 2000 to 2004 Roger took a leave from Clark, where he served as Dean and Provost, to direct the Stockholm Environment Institute. There he served to broaden the Institute's range of problems to include environmental and human-environmental research in the developing world. Roger moved the Institute to assist in the development of an Asia Center in Thailand and initiate a research program on China-related issues. In addition, he used the Institute to foster collaborations between the risk-vulnerability and pressure-and-release vulnerability communities—to wit, between those approaching vulnerability through mainstream science and critical social science.

In addition to his election to the NAS, Roger was elected a Fellow of the American Association for the Advancement of Science (1987), received Honors from the Association of American Geographers (1991), elected a Fellow of the Society for Risk Analysis (1995), and the American Academy of Arts and Sciences (2004), and awarded the Distinguished Achievement Award, Society of Risk Analysis (2006).

Such awards notwithstanding, Roger took exceptional pride in the programs he helped to build and support, foremost his co-founding of CENTED, one of the better centers for risk and hazard research in North America. Significantly, this center was created in a modestly endowed institution that enrolls only about 2000 undergraduates and 1000 graduate students, instructed by about 160 tenure-line faculty members. These numbers drop significantly in terms of faculty members and doctoral students on which CENTED might draw, and yet the research contributions of the Center (and its

successor, Marsh Institute) would indicate a much larger program, owing to the work of Roger, Bob Kates, Jeanne, and others involved! Roger's impact extended beyond CENTED to his home department, the Graduate School of Geography, with only about 20 full-time members. Roger was the fourth of five of its members to be elected to the NAS to date, a tribute to his intellectual and personal leadership. Despite Roger's strong role in the success of that program, he always pointed to the roles of his colleagues in generating the tenor and quality that it maintained.

Roger and Jeanne were married 45 years until her passing in Stockholm in 2002. They are survived by their children, Demetri and Kyra, and grandson Cameron. Roger is also survived by his second wife, Bonnie Ram, a Clark alumna, research collaborator, and senior researcher and associate director of the Center for Research in Wind at the University of Delaware, and founder of the RamPower consultancy, which deals with renewable energy transitions.

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