

**IN MEMORIAM: WALTER ISARD (1919–2010)****David E. Boyce**

Department of Civil and Environmental Engineering, Northwestern University, Evanston, IL 60208. E-mail: d-boyce@northwestern.edu

Ronald E. Miller

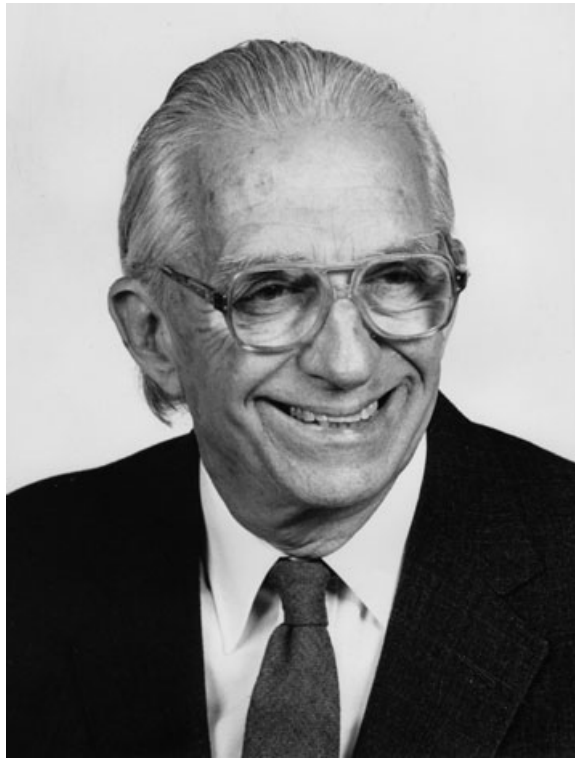
Emeritus Professor of Regional Science, University of Pennsylvania, Philadelphia, PA 19104. E-mail: remiller@sas.upenn.edu

Just weeks before the publication of the final issue of Volume 50 of the *Journal*, we mourn the death of its founder, Walter Isard. Active as Professor Emeritus of Economics and City and Regional Planning at Cornell University through his 91st year, he died on November 6, 2010 at home in Drexel Hill, Pennsylvania.

The founding of the *Journal of Regional Science* in 1958 was one of several initiatives undertaken by Walter Isard as he sought to establish Regional Science as a new interdisciplinary field. Others were the creation of the Graduate Group in Regional Science in 1956, and the Department of Regional Science in 1958, at the University of Pennsylvania in Philadelphia, and the Regional Science Research Institute (with Benjamin Stevens) in 1958 as an independent research entity in Philadelphia. These events followed his founding of the Regional Science Association in 1954. Through his determined leadership, Walter encouraged economists, geographers, sociologists, and city planners to cross disciplinary boundaries, construct theories of urban and regional phenomena, and apply methods of analysis to the emerging urban, regional, and environmental policy issues of the mid twentieth century.

Volume 1, Number 1 of the *Journal*, Summer 1958, was assembled under Walter's direction by faculty and students along the floor of a hallway in the basement of Dietrich Hall on the University of Pennsylvania campus, the location of the Departmental offices at the time. It was painstakingly typed by the departmental secretary and others—a gargantuan task considering the elaborately sub- and superscripted mathematics of two detailed articles by Isard and by Stevens on interregional linear programming, comprising the initial 98 pages of the 130 in this first issue! These papers were drawn, respectively, from a chapter that Walter was preparing for the monumental *Methods* book (noted below) and Benjamin Stevens's Ph.D. dissertation, supervised by Walter and awarded by M.I.T. where he had begun graduate studies with Walter. Both moved to Penn in 1956. Faculty and graduate students in the Penn department were conspicuous contributors to the early volumes of the *Journal*; the first issue without at least one Penn author was Volume 7, Number 1 (June, 1967).

From its inception through 1997, when Blackwell (later Wiley-Blackwell) took over, the *Journal* was published by the Institute. Beginning with the second issue, Penn's contribution of faculty released time and secretarial support is acknowledged by the addition of "in cooperation with the Department of Regional Science of the Wharton School, University of Pennsylvania" to the cover.



Walter Isard in 1989. Photo courtesy of Peter Isard.

Walter Isard was always listed as an editor, initially with William Alonso, a graduate student (Volume 1, Number 1 only), and then with Michael Teitz, another graduate student (Volume 1, Number 2 through Volume 5, Number 1); they were joined by Benjamin Stevens as Managing Editor in Volume 2, Number 1. Ronald Miller, an Assistant Professor in the Penn department, became Managing Editor in 1963 (Volume 5, Number 1); Walter and Ben remained as editors. In 1967, external referees were listed as Associate Editors, including colleagues from economics, geography, and city planning from a broad spectrum of institutions, including Chicago, Princeton, Minnesota, Northwestern, and Berkeley, indicating the extent to which regional science had spread from Philadelphia.

Walter Isard was born on April 19, 1919 in Philadelphia, the son of Jewish immigrants from Eastern Europe. In 1939, he graduated with distinction from Temple University, majoring in mathematics; he then entered Harvard University as a graduate student in Economics. There, he developed a research interest in building construction, transportation development, the location of economic activities, and the ensuing cycles of growth and stagnation that characterized the 1920–1940 period. In 1941–42, he studied at the University of Chicago, where his interest in mathematics was rekindled. Later, he was affiliated with the National Planning Resources Board, where he completed his Harvard Ph.D. dissertation in 1943. Subsequently, he served as a conscientious objector in the Civilian Public Service; during the night at the state mental hospital where he was assigned, he translated into English the works of the German location theorists, including Lösch, Weigmann, Engländer, and Predöhl.

During the post-war years, Walter intensified his studies of industrial location theory, while serving as a Research Associate in W. W. Leontief's interindustry research project at Harvard, and honing his teaching skills at several part-time appointments, including the first course on location theory and regional development taught at Harvard's Economics Department. In 1948, at the age of 29, he initiated meetings of leading economists, geographers, sociologists, and demographers on interdisciplinary regional research, which were welcomed by participants of their annual disciplinary conferences, and continued intensively through the next six years. In December 1954, at the meetings of the Allied Social Science Associations in Detroit, Walter organized a conference program of 25 papers; at the business meeting, 60 scholars endorsed the formation of the Regional Science Association (RSA). The association now has 4,500 members worldwide.

Following his initiatives in the late-1950s, Walter expanded his horizons to Europe and Asia. In 1960, he visited several research centers in Europe where he organized sections of the RSA, resulting in the first European Regional Science Congress at The Hague in 1961. Sections were subsequently established elsewhere in Europe and in Asia as well as North America. During the mid-1960s, summer institutes were held at Berkeley, and in 1970 the first European Summer Institute took place in Karlsruhe, Germany. Subsequently, summer institutes were held in Europe every second year. International conferences are held every year in North America and Europe and every second year in the Pacific region. In 1989, the Regional Science Association was reorganized and its name modified to the Regional Science Association International (www.rsai.org).

In 1978, the Regional Science Association established its Founder's Medal in honor of Walter Isard. The following year, Walter moved from Penn to Cornell University as Professor of Economics. In 1985, he was elected to the (U.S.) National Academy of Sciences. He received honorary degrees from Poznan Academy of Economics, Poland (1976), Erasmus University, The Netherlands (1978), the University of Karlsruhe, Germany (1979), Umeå University, Sweden (1980), the University of Illinois at Urbana-Champaign, U.S. (1982), Binghamton University, U.S. (1997) and the University of Geneva, Switzerland (2002).

Walter Isard's research contributions were extensive and diverse. His interests in regional and urban phenomena led to his first major book, *Location and Space Economy: A General Theory Relating to Industrial Location, Market Areas, Land Use, Trade and Urban Structure* (1956). Next, he initiated research on the economic and social consequences of atomic power and industrial complexes, and intensified his research on methods of regional and urban analysis, including interregional interindustry models, interregional linear programming models, and migration and gravity models, resulting in a second major book, *Methods of Regional Analysis: An Introduction to Regional Science* (1960), thoroughly updated as *Methods of Interregional and Regional Analysis* (1998). During the 1960s, he turned to theoretical pursuits related to individual behavior and decision making as well as general equilibrium theory for a system of regions leading to a third major book, *General Theory: Social, Political, Economic and Regional* (1969). Concurrently, he and his students undertook a major interindustry study of the Philadelphia region, published as a fourth major book, *Regional Input-Output Study: Recollections, Reflections, and Diverse Notes on the Philadelphia Experience* (1971).

The last of over 20 books, *History of Regional Science and the Regional Science Association International* (Springer, 2003), includes a memoir of his early career. Walter also pursued policy interests related to conflict management and resolution, disarmament and peace science during his career. He founded the Peace Research Society, later renamed the Peace Science Society, and the Graduate Group in Conflict Analysis and Peace Research at the University of Pennsylvania. Several of his books, as well as many of his 300 published papers, concern topics in peace science.

Walter taught many courses (mostly graduate) and guided students in their dissertation research, usually as research assistants on his numerous research projects, during his years at Penn (1956–1979) and Cornell (1979–2010). His unbridled energy and enthusiasm for exploring cross-disciplinary problems in imaginative ways continued through the research and publications of many scholars who were his students—Benjamin Stevens, William Alonso, Stan Czamanski, Michael Teitz, Tony Smith, Adam Rose, Christine Smith and Kieran Donaghy are but a few examples. They have, in turn, mentored further generations of students. Many of his books and papers are the outcome of collaborations with his students.

As Kieran Donaghy, Professor of City and Regional Planning at Cornell University, awarded the 15th Ph.D. in Regional Science at Cornell in 1987, put it: “I think an important point to be made is that Walter anticipated that ‘we’—planners, economists, geographers, civil engineers, environmental scientists, regional scientists — needed to be able to give a spatial extension to intertemporal optimization methods in order to work out ‘what to do, when, where, and by how much’ to achieve outcomes that were best for society (intergenerationally speaking). And in *Spatial Dynamics and Optimal Space-Time Development* (1979), he (and Panos Liossatos as well as the other authors) gave it their best shot. In the analysis of issues emanating from climate change or natural resource extraction, we still need to be able to sort out the timing and the location of various policy interventions. We have no better starting place than that book.”

Michael Teitz, Professor Emeritus of City and Regional Planning at the University of California, Berkeley, awarded the sixth Ph.D. in Regional Science at Penn in 1964, neatly characterized Walter Isard: “I remember him for his tremendous energy and relentless pursuit of his goals, together with his optimism about science and what it could do.”