

A short history of the field of regional science

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Abstract. The Regional Science Association was founded 50 years ago in December 1954; however, the institutional origins of the field were much earlier, perhaps when Walter Isard began his graduate studies in economics at Harvard University. This article briefly traces the history of the field of regional science and its association from those beginnings to the present. The focus of the article is the evolution of the association as an institution, and some of its major contributors, and to a much lesser extent, on the scope and scholarly content of the field.

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1 Overview

What is *regional science*, and how did it come into being? These questions are not easily answered, and perhaps best left to historians of science. As one participant

* In mid-1968, Walter Isard invited me to join him in the organisational work of the Regional Science Association. As we had not worked together before, I was actually quite surprised to be asked. Somehow this role worked well for me, and I hope it has served well all who have been impacted. On this occasion I want to express my profound appreciation to Walter, and to all regional scientists for the opportunity to serve you. These 35 years have been a wonderful experience for me, and I look forward to many more. Although this article was invited by the guest-editors of *Papers in Regional Science*, Walter has been urging me for the past two years to make time to write my part of the *History*. This article represents my first effort in this direction, and I hope to follow it soon with a sequel to his *History* (Isard 2003). His manuscript was one essential source for this article. Other sources were comments on earlier versions by several individuals. In particular, I wish to thank Peter Batey and David Plane for helpful and insightful comments.

Responsibility for the accuracy and interpretation of events lies with me alone. If you believe I have erred, or misrepresented the facts, I want to hear from you. Please write to me at the above address.

and contributor to the field of regional science over the past 40 years, I was invited by the editors to write a short history of our field for this special issue. This article, perhaps inevitably, is more about regional science viewed as an institution than about regional science as a scholarly activity. To trace and analyse the evolution of the subject matter of regional science would be a much larger undertaking than the one attempted here. In his *History*, Walter Isard (2003) has also deftly sidestepped this issue by reproducing programmes of conferences for the reader to examine, ponder and possibly analyse. I expect the actual analysis will be performed by historians, drawing upon Isard's *History* and similar works as source documents.

This article is organised chronologically and is accompanied by a detailed *Chronology* compiled from Isard's *History*, newsletters, periodicals and books. We begin with a brief academic biography of Walter Isard, and then proceed to an account of the evolution of the institutions of regional science. A short summing up of accomplishments concludes the article.

2 Beginnings: 1939–1953

2.1 *Isard, the student*

In the fall of 1939, having completed his undergraduate studies at the age of 20 with honors at Temple University, Philadelphia, Walter Isard entered Harvard University as a graduate student in economics. During the next two years he developed his thinking concerning cycles in building construction and transportation development, under the critical eyes of Professors Alvin H. Hansen and Abbott P. Usher, who stimulated his interest in location analysis. In 1941 Isard moved to the University of Chicago, where he studied with Professors Frank H. Knight, Oscar Lange, who rekindled his interest in studying mathematics, and Jacob Viner, whose course in economic theory proved important for his future research. In the following year Isard pursued his interest in location analysis while affiliated with the National Resources Planning Board in Washington, D.C., where he became acquainted with Robert B. Mitchell and G. Holmes Perkins, who later facilitated his relocation to the University of Pennsylvania.

After quickly completing his Ph.D. thesis on building cycles and transportation development, because of the outbreak of World War II, Isard was drafted; as a consequence of his Quaker upbringing and his pacifist beliefs, he was assigned to the Civilian Public Service as a conscientious objector. During the night hours of his duties as an orderly in a state mental hospital, he translated into English the works of the German location theorists, which were essentially unknown to English-speaking economists. Following the conclusion of hostilities, Isard returned to Harvard to continue his location studies, especially of the iron and steel industry. In addition, he extensively analysed the costs of atomic power, questioning whether atomic power would ever be a cost-effective source of electric power due to its very high investment costs.

While teaching part-time during 1945–1949, Isard became aware of the awakening interest in W. W. Leontief's input-output approach, and Leontief's own new-found interest in regional problems. Subsequently, Leontief invited Isard to assist

him with the development of the balanced regional input-output model, which led to his appointment at Harvard during 1949–1953 as a research associate. As a condition of the appointment, however, Isard insisted on teaching a course in the Economics Department, which resulted in the introduction of a course on location theory and regional development into the Harvard economics curriculum. This course was taken by numerous graduate students who later became well known for their own contributions to regional science.

2.2 Formative meetings and promotional efforts

While engaged in his post-doctoral studies at Harvard, Isard became active in efforts to promote the study of location analysis and regional problems, including arranging meetings of interested scholars. Beginning in 1948 he requested the agreement of successive presidents of the American Economic Association (AEA) to organise sessions on regional problems during its December conventions. Likewise, he sought the support of sociologists and demographers in organising such meetings. This period of activity led to a proposal to the Social Science Research Council (SSRC) to form a Committee on Regional Economic Studies. The proposal was discussed at a meeting held on December 29, 1950 in Chicago, where the AEA was meeting. A wide-ranging discussion ensued among the 27 participants at the meeting on the interdisciplinary nature of regional research, the need for new concepts and techniques for making regional projections, and the need for additional data. The possibility of a summer research seminar was discussed, and a working committee was appointed. The discussion formed the basis for a proposal for funds to the SSRC, which ultimately was rejected.

This result, it seems, caused Isard and his associates to redouble their efforts. Throughout 1951–1954 sessions on regional research were organised at meetings of various economic associations, including the annual AEA convention, as well as geography, city planning, political science and sociology meetings. More than 25 meetings were held during this period. Drawing on secretarial resources of Leontief's research project, an informal newsletter was disseminated, providing detailed accounts of discussions as well as titles of papers presented.

Midway during this period at the age of 34, Isard moved to M.I.T. as Associate Professor of Regional Economics and Director, Section of Urban and Regional Studies, Department of City and Regional Planning. There Isard gathered a group of graduate students including Gerald Carrothers, Robert Coughlin, Thomas Reiner, Eugene Schooler, Benjamin Stevens, and Thomas Vietorisz, who aided him not only in his expanding research activities, but also in his organisational activities.

Throughout this period, a discussion ensued on what should be the name of this interdisciplinary field of scholarly activity. Several possibilities were actively discussed: spatial researchers or scientists; regional researchers; and regional studies, to cite several representative ones. All were found to have excessive overlap with existing fields or were thought to be confusing. In the end the crisp title, *Regional Science Association*, emerged from the discussions, recognising that regional science applied also to *interregional science*. The first use of the term *regional scientist*

is found in a newsletter from Isard dated August 3, 1954 proposing the formation of an “Association of Regional Scientists”. To this development, I shall now turn.

2.3 *The first meetings*

Following four years of sustained and extensive discussion on the purpose and scope of their regional research activities, Isard proposed the formation of an Association, with its first meeting to be held December 27–29, 1954 in conjunction with the AEA and other social science associations in Detroit. A full programme of 25 papers was organised, although some sessions were held jointly with other associations. A business meeting was called for December 29, in which 60 scholars participated. As recorded in a subsequent newsletter, the discussion was orderly, but enthusiastic, in support of the formation of an Association. A committee was established, with Isard given full freedom to select its members. The participating scholars also agreed to meet the following year with the allied social scientists, as they later became known. There was also support for publication of the papers presented at the meeting, which was accomplished by each author providing 200 copies, and having them bound together into a volume, which became Volume One, *Papers and Proceedings, Regional Science Association*, 1955. The Proceedings consisted of the Minutes of the Business Meeting and the Programme of the Meetings. (In Volume One, the plural *Meetings* is used to describe the event for the first time, possibly an innovation of the Editor, Gerald Carrothers.)

What can be said about content of these Meetings, a topic easily glossed over? Each of the sessions had the word *regional* in its title as well as economic analysis, economics, or research. Location theory and models were present but were in the minority. Urban topics were represented but not extensively. Transportation and spatial interaction were also present, together with a few papers on regional policy. In short, the programme was much the same as RSAI meetings presently, an interdisciplinary mix of theory, methods and applications on both large and small regions, including urban and rural regions and interregional relationships.

3 Early years: 1954–1968

3.1 *Organisation of the RSA*

The formal organisation of the Regional Science Association (RSA) proceeded deliberately and carefully. A highly interdisciplinary organising committee was appointed, which produced a draft constitution by July 28, 1955 for circulation to interested persons. The Constitution was discussed at the December 28, 1955 Business Meeting, with some suggestions for changes to liberalise the qualifications for membership. Procedures for nominating and electing officers were also discussed, as was the place of the next Meetings. The Constitution was distributed to persons participating in the activities of the association, and declared to be ratified on August 15, 1956.

In retrospect, two points were overlooked in the Constitution. First, no provision was made for the formation of sections. In fact there is no mention of sections in the newsletters of the Association until 1960, when the Constitution was amended to allow their formation. Second, the officers were the usual ones; however, there was no office for the ongoing leader of the Association, which is to say, Walter Isard. Once he served as the first President, in 1957, what would be his role? This oversight was corrected in 1959 by the creation of the office of Honorary Chairman, which Isard subsequently held throughout his leadership of the Association.

For the 1956 Meetings, the Association was recognised formally as a legitimate social science organisation and incorporated into the Allied Social Science Associations (ASSA). This arrangement for the Meetings continued until 1963, when the RSA held its Tenth Annual Meetings in the U.S., independently of the ASSA in Chicago. These meetings represented the coming of age of the Association, as being sufficiently strong to function separately from other social science organisations. The *Regional Science Association Directory, 1960–1961*, listed about 960 members, further testifying to the success of the Association's early years.

3.2 Transition to the University of Pennsylvania

After failing to establish a Ph.D. programme in regional science at M.I.T., Isard looked elsewhere for fertile ground for rooting the seeds of the new field. The University of Pennsylvania at Philadelphia, Isard's hometown, provided that opportunity. The Economics Department of the Wharton School at Penn was seeking new academic blood, which was provided initially by Lawrence Klein, later to be the 1980 Nobel laureate in economic science, and Walter Isard. A new Graduate Group in Regional Science was created at Penn, as announced by Isard to the RSA membership on April 13, 1956. Also established at Philadelphia was the Regional Science Research Institute, as a non-profit, independent research organisation.

In the same year the first of three books by Isard was published, *Location and Space Economy*. The second, *Industrial Complex Analysis and Regional Development*, followed in 1959, and the third, *Methods of Regional Analysis*, in 1960. These books, together with the founding of the *Journal of Regional Science* in 1958, solidly established the graduate programme at Penn as a centre of scholarly activity. Recognition came quickly with the establishment of the Regional Science Department in 1958. The first Ph.D. degree was awarded in 1960 to William Alonso, another promising young scholar who had migrated to Philadelphia with Isard, Stevens and the others. Alonso went on to Harvard and Berkeley to an illustrious academic career. His Ph.D. thesis, published as *Location and Land Use*, became a classic not only in regional science, but also in urban economics and urban planning.

3.3 Europe, the Far East and the formation of sections

Having rooted regional science firmly in the United States and at Penn, Walter Isard next turned his attention to the rest of the world. As already noted, sections were

not envisaged in the original constitution. Once amended, however, the first section was formed, evidently spontaneously in March 1961 by regional scientists from the western United States meeting at Las Vegas. Initially known as the Western Section, the Western Regional Science Association emerged as a vibrant organisation with its own journal, *The Annals of Regional Science*, and the ambition by 1969 to collaborate with the next section to be formed, the Japan Section, to organise an international conference of scholars from the Pacific Rim.

In the summer of 1960, Isard was active in disseminating regional science to Europe. Travelling with his large family in a VW microbus, he made a grand tour of The Hague, Paris, Bellagio (Italy), Zagreb, Warsaw, Stockholm, and Lund, organising conferences and sections along the way. He achieved the necessary interest and support to organise and hold the First European Congress at The Hague in August 1961. The meeting was highly successful with 122 scholars from 29 countries. Over the next 30 years, sections formed throughout Europe: French Language, Norden, Dutch, German Speaking, British, Italian, Hungarian, Polish, Israeli, Spain, and Turkish, in rough chronological order; available records do not permit a more precise ordering.

By 1962 Isard, with the help of his associates, turned his attention to Latin American and the Far East. The First Latin American Congress was held in Caracas in 1962 with 100 participants. The Japan Section was formed under the leadership of Genpachiro Konno in 1962, and the First Far East Conference was held in September 1963. Subsequently, the Indian Section was formed and held its first meeting in 1967. While the Japan and Indian Sections flourished, establishing additional sections in Asia proved difficult until after 1980, when in succession the Korean RSA, Chinese RSA-Taiwan, Indonesian RSA and a Mexican association were formed and became member organisations. Likewise, although the Brazilian and Argentine Sections were formed during the 1960s, until recently they did not hold regular meetings.

More steps in the establishment of regional science were the Summer Institutes held at the University of California at Berkeley in 1962 and 1964. These summer schools of several weeks provided advanced instruction in regional science theory, methods and applications to young faculty members from the U.S. and abroad. Leading regional scientists from Penn and other universities formed the faculty. The export of the Summer Institute concept to Europe in 1970 was a direct result of a young German economist, Rolf Funck, having attended the 1964 event, as well as the strong suggestion made to him by Walter Isard in August 1969 in Copenhagen.

Otherwise, during the 1960s the annual Regional Science Meetings continued to flourish in the United States, increasing in attendance from year to year. As noted, the first Meetings held separately from the ASSA occurred in 1963 with considerable success. Likewise, the European Congresses attracted the attention of scholars there, as well as a few American scholars who Isard invited to join this annual August excursion. In 1965 the Congress was held for the first time at an Eastern European location (Kraków) greatly facilitating the participation of scholars from Eastern Europe. A two-day meeting of the British Section in 1967 was added to the itinerary, scheduled just before the European Congress.

4 Expansion years: 1968–1989

4.1 *Expansion of the North American meetings*

As the annual Regional Science Meetings took shape in the mid-1950s and through the transition to a venue independent of the ASSA in the 1960s, two features of the annual event were unchanging. First, the Meetings consisted of a sequence of three-hour sessions, each comprising two addresses by leading scholars to the assembled participants, followed by invited discussants and extensive discussion from the floor. Altogether, 14 papers constituted the three-day Meetings, Friday morning through Sunday afternoon. Second, the 14 papers were invited by Walter Isard, often in consultation with leading scholars. The only exception was the “early-bird” Ph.D. dissertation paper sessions held on Saturday and Sunday mornings.

From the perspective of the present, the thought of over 100 regional scientists, economists, geographers and others sitting in a single large room listening to papers on a diverse range of subjects is rather daunting. But that was indeed the format of the Meetings through 1968. Moreover, competition for those relatively few invitations became increasingly keen. As interest and attendance in the Meetings grew, and the opportunity to present a paper on one’s own research became a criterion for obtaining travel funds, the necessity to “open up” the meeting format became imperative. This process was initiated slowly, first in 1969 when parallel sessions were initially held on Sunday morning, and increasingly through the 1970s when parallel sessions of various styles began to be organised by several interest groups. During this period, the format and content of the Meetings evolved substantially. Invited papers continued to be scheduled, but in parallel with organised sessions on various topics. By 1976, the Meetings had expanded to six parallel sessions at Toronto, the first Meetings held in Canada. By 1986 the Meetings consisted of 10 parallel sessions held over three days for a total of 60 sessions.

In 1969 these conferences were first designated as the *North American Meetings*, in contrast to the former designation, U.S. Meetings. This change recognised the continuing success of the European Congress, and the emergence of a third international conference described below.

4.2 *Transition to the European RSA*

In Europe, the nature and organisation of the European Congress evolved similarly at first. As noted, the first Congress in Eastern Europe took place in 1965. The second Congress in Eastern Europe was held in late August 1968 at Budapest, just a few days after an unexpected intrusion into the internal affairs of Czechoslovakia by the superpower to the east. As a result, a number of Western European participants, especially several from the Federal Republic of Germany, boycotted the Congress. Ironically, the Congress was highly successful as a result of the participation for the first time of a substantial group of Soviet scholars as well as others from Eastern European countries. Substantial Soviet participation continued at the Copenhagen Congress in 1969, but diminished in the following years. And the plan to hold the 1970 Congress at Bratislava had to be canceled as a result of adverse conditions in

Eastern Europe in the early 1970s. Only in 1975 was it possible to resume holding the Congress in the East, again at Budapest.

Highly successful Congresses were held in London, Rome and Vienna in the early 1970s, following the format and procedure devised by Walter Isard for the North American Meetings. In the case of the European Congresses, however, the organisation was anomalous in the sense that the entire programme was organised by Isard, increasingly with my assistance after 1968, from our offices at the University of Pennsylvania. Shortly after each Congress, we would draw up a list of 12–14 scholars to be invited to give papers at next year's Congress. Invitations were mailed, and when an acceptance was received, discussants were identified and invited. By April, the tentative programme was assembled and distributed in a newsletter to the membership, together with a hotel reservation form. Adjustments to the programme were made, as needed, over the summer. The programme was sent, or often hand carried to the Congress venue, and the final programme produced on the day before the Congress. The procedure was efficient and served the early years of the Congress well.

At the Business Meeting of the Karlsruhe Congress in 1974, however, the whole procedure was severely questioned. A Dutch scholar, who was not a regular participant and whose name has long since been forgotten, inquired why this *European* Congress is organised by Americans in Philadelphia. This remark triggered a long discussion during the Business Meeting and afterwards. Why indeed! The end result of this discussion was an agreement for European scholars to undertake the preparation of the Congress programme, beginning with a few sessions in 1976 at Lyngby, Denmark, and expanding until the European Organising Committee (EOC) assumed full responsibility for the 1979 Congress at London organised by Peter Batey. Subsequently, the European Regional Science Association was formed as a *supraregional* organisation in which the various sections of the RSA in Europe were represented. However, the EOC, essentially an independent body, retained control over the organisation of the Congresses. The transition to the preparation of the Congress by the EOC proceeded very smoothly, largely because of the leadership of Peter Nijkamp, at the time a young scholar beginning his career in The Netherlands. The formation of these two European organisations established a precedent for decentralising the organisation of the international conferences of the RSA, a point to which I return below.

4.3 *Founding of the Pacific Conference*

As noted earlier, the Western Section was the first section to be organised in 1961, and the Japan Section was organised two years later in 1963. These two sections organised the First Pacific Regional Science Conference in Honolulu in late August, 1969, held on the same days as the European Congress in Copenhagen. Unlike the North American Meetings and the European Congress, the Pacific Conference was held every second year, first at Honolulu, and later at alternating locations between Asia and North America. The organisers also successfully issued *Papers of the Pacific Conference* for the first five conferences through 1975. In contrast to two

conferences organised each year by Walter Isard, the Pacific Conference and its publication were the activity of two of the most successful sections of the RSA.

At the Council Meeting at the North American Meetings in Toronto in 1976, Isao Orishimo proposed on behalf of the Pacific Regional Science Conference that *Papers of the Pacific Conference* be incorporated into *Papers of the Regional Science Association*. The immediate rationale was a practical one, resulting from difficulties experienced by the Pacific Conference in publishing its *Papers* in a timely and financially sound manner. This proposal was received and debated cautiously by the RSA Council, as it would place an additional burden on RSA finances as well. In the end, however, agreement was reached that *Pacific Conference Papers* would be included in *Papers of the RSA*, beginning with the 1979 conference. Those *Papers* were issued as Volume 46 (1981) edited by Hirotada Kohno and Rodney Jensen.

Although the proposal made by Orishimo on behalf of the conference organisers was made for practical reasons, ensuing actions to form the Pacific Regional Science Conference Organisation (PRSCO) as a second supraregional organisation helped to determine the present form of the RSA. PRSCO adopted its own constitution and operating procedures, just as the European Organising Committee had done a few years earlier. Led decisively by the secretaries of the Western RSA and the Japan Section, Lay Gibson and Hirotada Kohno, with the strong encouragement of Michael Mischaikow, editor of *The Annals of Regional Science*, PRSCO became an equal and strong pillar of the international RSA.

4.4 Establishment of the North American Council

During the 1970s the North American Meetings continued to be organised at the University of Pennsylvania. In 1977 the organisation of this conference moved with me to the University of Illinois at Urbana-Champaign (UIUC). Subsequently, assistance for the organisation of these Meetings was provided by that university. When the membership and financial office of the association also moved to UIUC in 1987, the excessive concentration of activities became apparent. Moreover, it gradually became clear that the North American Meetings, and the highly successful sections in North America, were organisationally at odds with the rest of the world, which is to say the European and Pacific organisations. How to reorganise the RSA and its North American Meetings were debated during RSA Council meetings during the early 1980s.

During my term as RSA President, I initiated discussions to address this organisational issue, first in a panel discussion held at the Baltimore Meetings in 1987, and then at a session to draft a North American Regional Science Council (NARSC) constitution at the Toronto Meetings in 1988. Among others, David Plane and Lay Gibson were especially helpful in articulating the structure of this third supraregional organisation of the RSA. NARSC was formally organised in 1989 at Santa Barbara with John Current as Executive Secretary. Under the strong leadership of R.D. Norton and Barry Moriarty, NARSC organised the Boston Meetings in 1990 and the New Orleans Meetings in 1991.

4.5 World Congresses, Summer Institutes and Graduate Programmes

The next step beyond the supraregional and section meetings was the establishment of the World Congress. The first congress was held on June 14–25, 1980, at Cambridge, USA, in conjunction with meetings of other international organisations, and organised by Walter Isard, Gerald Karaska and myself. Subsequent congresses were held in Rotterdam (1984), Jerusalem (1989), Palma de Majorca, Spain (1992), Tokyo (1996) and Lugano (2000).

As noted earlier, Summer Institutes in Regional Science at Berkeley in 1962 and 1964 were important in drawing young scholars into the field, especially from economics and geography. At the suggestion of Walter Isard, Rolf Funck organised the First Advanced Studies Institute in Regional Science at the Technical University of Karlsruhe in 1970 with 40 young scholars and 13 faculty members in residence. Except for the omission of 1976 because of funding difficulties, this Summer Institute continued on a biannual basis for many years, and for at least the past seven years has been organised annually under the aegis of the European RSA. In 1990 PRSCO organised its first Summer Institute at Bandung, Indonesia, which was held subsequently in even-numbered years. Over the past 40 years these institutes have been instrumental in attracting young scholars to regional science.

The 1970s were also a period of expansion of graduate programmes in regional science. A first effort to expand beyond Penn was made by Walter Isard in 1966 by establishing a Regional Science – Landscape Architecture Project in the Graduate School of Design at Harvard University. Later, a post-doctoral programme was added. Subsequently, Isard moved this programme to Cornell University, where regional science was established as a field of Ph.D. study in 1972. In addition to the Ph.D. programmes at Penn and Cornell, regional science institutes were founded at the University of Aix-Marseille, the Copenhagen School of Economics and Business Administration, and the Technical University of Karlsruhe, Germany, in the late 1960s. By 1975 twelve post-graduate programmes in North America, Europe, Asia and Australia offered degrees; some programmes offered specialisations in related degree programmes such as geography and economics.

5 Maturing years: 1990–2003

5.1 Establishment of the RSAI

The establishment of the three supraregional organisations during 1974–1989 led to the reorganisation of the international association in 1989, effective January 1, 1990. In the new Constitution ratified in late 1989, the association was renamed the *Regional Science Association International (RSAI)*, making official the use of the term *international*, which had been used occasionally in newsletters in the late 1960s. In addition to reorganising the Council to provide for representation from the supraregional organisations, as well as at large representatives, the Constitution provided for the election of a President with substantial leadership responsibilities, as opposed to the previously honorary presidency, and for a term of two years. The first President of the reorganised association was Peter Nijkamp, who served during

1991–1992. During the transition, Rolf Funck and Rodney Jensen provided strong leadership and advice.

In conjunction with the reorganisation, and the advent of the Internet, an RSAI website was established and a *Membership Directory* was published in 1992, the first since 1960–1961. Now websites also exist for the three suprarregional organisations, as well as for many sections.

5.2 Status of regional science degree programmes

A serious setback to the field was the demise of the Regional Science Department at the University of Pennsylvania. Walter Isard relocated his primary research base to Cornell University in 1979, having earlier relinquished the Chair of the Department in 1977 in order to focus his energies on Peace Science. Subsequent developments at Penn culminated in the closing of the Regional Science Department in December 1993. Although degree-granting authority remains, the residual faculty has declined to admit new students. Despite its eclipse, the impact of the Penn programme has been profound, graduating nearly 180 Ph.D. degrees and over 350 masters degrees since 1960.

The regional science programme at Cornell University remains active with 48 Ph.D. degrees and 60 M.S. degrees awarded since 1975. Degree programmes and specialisations in regional science established during the 1970s at universities in Asia, Europe and elsewhere in North America have sometimes been reorganised or combined with related programmes. These developments generally reflect the evolution and contraction of academic programmes that has occurred globally during the past decade.

5.3 Globalisation of regional science

Since the reorganisation of the association in 1990, increasing attention has again been paid to establishing sections, conferences and institutes throughout the world. The establishment of the PRSCO Summer Institute in 1990 has already been mentioned. Efforts to organise conferences in Latin America, not regularly held since the 1960s, have been emphasised. The 2003 Pacific Conference was held in Acapulco as a result. In January 2000 an International Symposium on Regional Science was held at Port Elizabeth, South Africa, at which international scholars and South African scholars met for the first time. This meeting led to a decision by the RSAI Council to hold the 2004 World Congress at Port Elizabeth.

6 Publications

In contrast to the status of some regional science academic programmes, publications of journals and books in the field continue to flourish together with conferences and Summer Institutes. In this section the history of regional science publications is briefly reviewed.

6.1 Papers

The first publication in the field of regional science in 1955 was *Papers and Proceedings, The Regional Science Association*. Originally, *Papers* consisted of selected papers presented at the annual meetings together with programmes and minutes of business meetings. Subsequently, in 1962 the *Papers* from the newly founded European Congress were added to this series. And, finally in 1981, *Papers* from the Pacific Conference were added, as noted earlier. An Index to the first 50 volumes of *Papers*, 1955–1982 was published in 1984. The publication of volumes of selected papers from these three conferences continued through the Volume 69 (1990). A new journal, *Papers in Regional Science*, was established in 1991 with editors drawn from the three supraregional organisations under the leadership of an Editor-in-Chief. The past aim of the editors of *Papers*, to publish selected papers as articles from the three supraregional conferences, was expanded with the goal of making *Papers in Regional Science* the quarterly flagship journal for the Association. *Papers in Regional Science* became a Springer journal in 1999, replacing informal publishing and marketing arrangements. Together, *Papers of the RSA* and *Papers in Regional Science* constitute a 50-year record of scholarship in the field of regional science. Many editors have contributed to the overall longevity and success of this publication.

6.2 Journal of Regional Science

The *Journal of Regional Science (JRS)* was founded by Walter Isard in 1958, and edited by him and several others throughout its history. Benjamin Stevens was a long-time editor, and later publisher, from Volume 4 (1962) to Volume 37 (1997), and Ronald Miller was its Managing Editor from Volume 5 (1963) to Volume 36 (1996). With Volume 33 (1993), Blackwell Publishers became the publisher of *JRS*, under Stevens's watchful eye until his death in December 1997. *JRS* helped to establish regional science by achieving a high standing among economic journals. It continues as one of the central journals of the field.

6.3 The Annals of Regional Science

The Annals of Regional Science (ARS) was first published in December 1967 by the Western RSA in co-operation with Western Washington State College. Volume 2 (1968) lists Michael Mischaikow as editor, who continued his work for the next 20 years. Beginning with Volume 23 (1989), *The Annals* was acquired by Springer. *ARS* continues today as one of the principal regional science journals.

6.4 Publications of Pion Limited

A small London-based publisher, Pion Limited, agreed in 1968 to publish *London Papers in Regional Science*, selected papers from the annual British Section

meeting. In the following year, Alan Wilson founded *Environment and Planning* with the same publisher. At the outset the journal had a strong regional science orientation; by design, it has expanded and diversified into four journals with a very broad social science scope. One of the principals, John Ashby, was especially helpful and enthusiastic in establishing these journals and serials. *London Papers* appeared annually, 1969–1991; it was then converted to *European Research in Regional Science*, which continues to the present.

6.5 *Regional Science and Urban Economics*

Regional and Urban Economics, Operational Methods, was founded by Jean Paelinck in May 1971, and published by North-Holland. The publishers appointed Åke Andersson and Walter Isard as co-editors in 1974, and the journal's name was changed to *Regional Science and Urban Economics (RSUE)* with Volume 5 (1975). The journal continues as a major outlet for more technically-oriented articles.

6.6 *International Regional Science Review*

Walter Isard founded the *International Regional Science Review (IRSR)* in 1975 “to facilitate the publication of papers of a less technical, and possibly less orthodox, nature than found in the *Journal of Regional Science*”. Andrew Isserman was appointed editor in 1976 and developed the *Review* into a principal regional science journal with a strong policy bent. With Volume 22 (1999), Sage Publications became publisher of *IRSR*.

6.7 *Publications of sections*

Most sections of the RSAI successfully publish journals or proceedings of their annual meetings. Several of these are constituted as journals, while others are serials issued annually or semi-annually. To my knowledge, only *The Annals* has achieved the status of a journal with a commercial publisher.

6.8 *Monographs in regional science*

In addition to journals, publication of research monographs and textbooks is necessary to establish and sustain an academic field. Presumably due to its novelty, the publication of books in regional science did not occur easily. Elsewhere, Walter Isard (2003) has described his frustration with the rejection of his first major manuscript by several publishers.

Isard achieved a breakthrough with the publication of his *Location and Space Economy* by M.I.T.'s Technology Press and John Wiley and Sons in 1956. The book was so successful that he had little difficulty in convincing the Press to publish his next three books: *Industrial Complex Analysis and Regional Development* with

Eugene Schooler and Thomas Vietorisz in 1959; *Methods of Regional Analysis* with others in 1960; and *General Theory: Social, Political, Economic and Regional* with Tony Smith and others in 1969. A successful book series in regional science was also established by MIT Press.

As noted above, Pion began publishing regional science serials and journals in 1969, and offered a number of important monographs from 1970 onwards. In the mid-1970s North-Holland established a series in *Regional Science and Urban Economics*, under the editorship of Andersson and Isard, which published many monographs of a highly technical nature. Springer entered the regional science field during the 1980s with a series edited by Peter Nijkamp. During the past 20 years, the number of publishers in the field has proliferated and includes Ashgate, Avebury, Croom Helm, Edward Elgar, Elsevier, Gower, John Wiley and Sons, Kluwer, Martinus Nijhoff, and Routledge. Various research institutes have also served as publishers. The Regional Science Research Institute with its monograph and bibliography series is an early example.

7 Administration of the RSA/RSAI

Over the years Walter Isard sought to keep the administrative efforts required to operate the Association to a bare minimum. Initially, the cost of correspondence and newsletters was borne by research projects, including the Harvard Economic Research Project led by Leontief. Following the formation of the RSA, individuals were encouraged to send in one dollar to defray the costs of publication of the *Papers*. The institutions at which Isard was based also contributed heavily to the costs of operations, often unknowingly, one presumes.

Sometime after Isard moved to the University of Pennsylvania in 1956, a small membership and financial records office was established. For many years this function was performed by Helen Wood. I first met her in a tiny office at 39th and Chestnut Streets in Philadelphia, where the Philadelphia Input-Output Study was housed beginning about 1963. Helen continued working at that location even after Isard moved to Cornell University in 1979. She then performed those functions working in her home. Isard continued to oversee the financial affairs of the Association until the membership and financial records were moved to the University of Illinois at Urbana-Champaign (UIUC) in 1987. Mrs. Wood was recognised for her long-time service to the RSA at the North American Meetings at Philadelphia in 1985.

Soon after I moved to the University of Illinois at Urbana-Champaign in 1977, Geoffrey Hewings succeeded me as Secretary, and assumed responsibility for the *RSA Newsletter*. I continued to organise the North American Meetings, and sought to co-ordinate other supraregional meetings with the overall activities of the Association. Office space for the RSA Secretary was found in a small building known as the Observatory, which actually did house an old telescope. Funds were secured from UIUC for part-time clerical support.

In 1982 Beth Carbonneau joined the office staff, and quickly became central to the functioning of the office. Over time she assisted me greatly with the organisation of the North American Meetings and with correspondence with section officers, well

before the advent of e-mail. Some time after Beth arrived, the entire inventory of the *Papers of the RSA* was moved by a truck driven by UIUC graduate students from Philadelphia to Urbana. The inventory was stored in discarded file cabinets in a large basement storage room under the telescope, filling perhaps 30 cabinets. At one point, some volumes left on the floor were damaged by termites, which according to one wag, had a distinct preference for pages dense with equations.

Orders for individual volumes of *Papers* were received by Helen in Philadelphia and forwarded to Beth for mailing. Unfortunately, for many of the volumes, supply greatly exceeded demand, and storage increasingly became a problem as the years passed and the number of volumes in inventory increased by five volumes every two years.

As noted, in 1987 the membership and financial records were transferred to the office at UIUC, and responsibility for them was assumed by Beth. Assistance in establishing computer-based membership and financial records was secured, and has generally worked well, despite early false starts. A part-time accountant was hired, and later a clerical worker to handle library subscriptions, both of whom were supervised and co-ordinated by Beth, by now promoted to Assistant Director. Mailings of newsletters and *Papers* were performed in this office, with boxes of materials frequently driven to the University mailroom by the Assistant Director in her own car. Mrs. Carbonneau received a Special Recognition Award at the 42nd North American Meetings for her dedicated service to the RSAI.

With the reorganisation of the Association in 1990 to become the RSAI, Geoffrey Hewings became the first (unpaid) Executive Director. He continued in this role through 1996, when he was succeeded by Kieran Donaghy, a graduate of the Ph.D. programme in regional science at Cornell University. Donaghy performed these duties through the end of 2002. In 2003 Graham Clarke has taken over the administrative direction of the RSAI; plans to move the administrative functions to a European location are in progress.

Beginning with Volume 46 (1981) of *Papers of the RSA* through Volume 77 (1998) of *Papers in Regional Science*, typesetting and printing were performed by the Office of Printing Services of UIUC. H.F. "Bill" Williamson served as Managing Editor of *Papers* during this period. He also performed a similar function for the *International Regional Science Review*.

In 1978 Barclay Jones proposed the establishment of the Regional Science Archives at Cornell University Library, and was appointed Archivist of the RSA. He arranged for the accumulated files and papers of Walter Isard to be moved from Philadelphia to Ithaca when Isard moved to Cornell in 1979. Without his assistance one wonders what correspondence and records might have been lost. When Jones died in May 1997, I succeeded him in December of the same year. Walter Isard has worked tirelessly in recent years to organise his materials in the Regional Science Archives, and to write his *History*.

8 Accomplishments of fifty years

Stepping back, what can one say about the events of the past 50 years, and more?

First, an entirely new field of scholarly activity has been founded and rooted, and is now thriving throughout the world. The field is robust and dynamic, and is making substantial contributions to both science and policy.

Second, the success of regional science, as in its formative period before 1954, has been to provide a locus for scholars and professionals from a wide range of disciplines concerned with regional, and interregional, phenomena at all geographic scales to interact. Their interactions occur through conferences, periodicals, books, the Internet, and in other ways. This interaction also occurs in classrooms and research laboratories of academe, in offices of the public and private sectors, and wherever and whenever regional scientists meet. The disciplines that contribute to this interchange are diverse; their centre lies in the social sciences, but they certainly extend to the physical sciences, engineering and even to the humanities. In this sense regional science is truly an interdisciplinary field.

Third, what is equally clear is that regional science has *not* become a discipline, and taken its place along side the above disciplines in the granting of graduate degrees. Efforts to establish graduate programmes seem to be on the wane. Although this may be regrettable, the field of regional science as an interdisciplinary locus may be stronger as a result.

Finally, I believe we may conclude that the prospects for regional science are very bright. Our field contributes a broader and deeper framework for the analysis and modeling of regional phenomena, and the solution of large-scale regional and interregional problems, than other fields. We are stronger from our interdisciplinary perspective and foundations, and less likely to be hindered by the rigidities of comfortable, yet unrealistic, disciplinary conventions and habits. Building upon our rich heritage of more than 50 years, I forecast only continuing success.

References

- Isard, W (2003) *History of Regional Science and the Regional Science Association International: The Beginnings and Early History*. Springer, Berlin Heidelberg New York

A chronology of the field of regional science

This listing seeks to record the principal events in the development of the field of regional science. Sources include original documents, including *Regional Science Association Newsletters*, *Papers of the Regional Science Association*, and Walter Isard (2003). Emphasis in this Chronology is on early developments and contributions of the many individuals who helped the field to flourish.

Date	Event
1919, April 19	Walter Isard, the son of immigrant parents, is born in Philadelphia.
1939	Walter Isard enters the graduate program in economics at Harvard University, following graduation with honors from Temple University, Philadelphia.
1941	Isard completes his first paper on building cycles in apartment construction, in which he noted the causal relationship between transportation development and building investment; published in 1942.
1946	Isard initiates studies of the location of the iron and steel industry, and of the high fixed costs of atomic power and their implications for industrial location.
1949	Isard joins the Harvard Economic Research Project of W. W. Leontief and introduces a course on location theory into the Harvard economics curriculum.
1950, December 29	Isard and 28 other scholars hold the first Regional Economic Research Meeting at the American Economic Association meeting in Chicago.
1951, January 9	Isard issues the first informal newsletter of the Committee on Regional Economic Studies, reporting on the Dec. 29 meeting, including a proposal to the Social Science Research Council to form a Committee on Regional Economic Studies.
1951, April 20	A second Regional Economic Research Meeting with 22 participants is held in conjunction with the Midwest Economic Association meeting in Milwaukee.
1951, September 6	A meeting on interdisciplinary regional research is held in conjunction with the American Sociological Association convention in Chicago.
1951, November 17	A session on regional economics is held at the Southern Economic Association convention in Knoxville.
1951, December 27	A paper on Current Developments in Interregional and Regional Input-Output Analysis and seven additional papers are presented at the American Economic Association and Econometric Society meetings in Boston, followed by a discussion with more than 40 participants.
1952, April 25	An interdisciplinary meeting on metropolitan regional research is held at the American Institute of Planners convention.

- 1952, August 7 A regional research meeting with more than 20 participants is held at the Association of American Geographers conference in Washington, D.C.
- 1952, December Several sessions on regional and spatial economics are held at the American Economic Association and Econometric Society meetings in Chicago. Such sessions at economics, geography, planning and related conferences continue during 1953 and 1954.
- 1953, April 3 A session on Theory in Economic Geography with four papers is held at the annual meeting of the Association of American Geographers in Cleveland.
- 1953, June Walter Isard is appointed Associate Professor of Regional Economics and Director, Section of Urban and Regional Studies, Department of City and Regional Planning, Massachusetts Institute of Technology.
- 1953, September 10 An interdisciplinary regional research meeting with 25 participants is held at the American Political Science Association meeting in Washington, D.C.
- 1953, December 27–30 Several sessions on regional research are held at the American Association for the Advancement of Science conference in Boston, followed by sessions at the American Economic Association meeting in Washington, D.C.
- 1954, April 14 Sessions on Urban Geography and Theory in Economic Geography are held at the annual meeting of the Association of American Geographers in Philadelphia. Other such meetings with various social science associations too numerous to document are held throughout the year.
- 1954, August 3 In a newsletter addressed to "Regional Scientists", Isard proposes exploring the formation of an "Association of Regional Scientists", and calls for a meeting at the American Economic Association meeting in Detroit in late December; this is the first use of the term *regional science* in correspondence with this group, and may be regarded as the first newsletter of the Regional Science Association.
- 1954, December 27–29 The organisational meeting of Regional Science Association is held in Detroit in conjunction with the meetings of the American Economic Association, American Association for the Advancement of Science, the American Statistical Association and associated organisations; an organisational committee is appointed. A full programme of 25 papers is presented over three days.
- 1955, Fall Volume One of *Papers and Proceedings, The Regional Science Association*, is issued, edited by Gerald Carrothers. Volume one includes the Program of the Dec. 1954 Meetings and the Minutes of the Business Meeting, plus 18 papers and 4 abstracts in 311 pages. Originally in 8 1/2 x 11 format, it was reprinted in 1957 in a 7" x 10" format. Carrothers continues to edit *Papers* through the 1962 volume. The title remained constant during this period, but the proceedings became smaller and ended altogether in 1960.
- 1955, December 28–30 A second business meeting of the Regional Science Association is held to consider the proposed constitution, publication of papers, and nomination and election of officers, in New York City in conjunction with meetings of the American Economic Association and associated organisations. A full programme of papers is presented.

- 1956, April 13 Isard announces in a letter to Regional Scientists the establishment of the Ph.D. programme in regional science at the University of Pennsylvania. The programme is established in the Wharton School, which also houses the Economics, Political Science and Sociology Departments. The Chair of the programme is Walter Isard, who joins the faculty of the Economics Department. The Program is administered by an interdisciplinary committee with members from economics, geography, political science, city planning, and civil engineering. Accompanying Isard to Philadelphia are his Ph.D. students, Gerald Carrothers and Benjamin Stevens. Carrothers and Stevens become faculty members in city planning and regional science, respectively.
- 1956, July 7 The proposed constitution of the Regional Science Association is distributed to the participants in past meetings; among other items of interest is the statement that "the RSA is an international association".
- 1956 Technology Press and John Wiley and Sons publish *Location and Space Economy* by Walter Isard.
- 1956, September 24 The Regional Science Research Institute is established in Philadelphia as a non-profit, independent research organisation by Walter Isard, with the assistance of Benjamin Stevens.
- 1956, August 15 The Constitution of the Regional Science Association is ratified by the membership.
- 1956, December 27–29 The Regional Science Association is formally recognised as a legitimate social science organisation and incorporated into the Allied Social Science Associations for the meetings in Cleveland; 24 papers are presented.
- 1957, December The ballot for officers of the RSA shows Walter Isard as President-Elect. Until this time, the RSA had functioned without elected officers.
- 1958, April *Journal of Regional Science* is founded by Walter Isard, and published by the Regional Science Research Institute in co-operation with the University of Pennsylvania.
- 1958 The University of Pennsylvania establishes the Regional Science Department with Walter Isard as Chairman.
- 1959 The MIT Press and John Wiley and Sons publish *Industrial Complex Analysis and Regional Development* by Walter Isard, Eugene Schooler and Thomas Vietorisz.
- 1959, December The position of Honorary Chairman of the RSA is created by an amendment to the Constitution at the Business Meeting at the Sixth Annual Meetings.
- 1960, Summer Several meetings of European scholars interested in regional science are organised by Walter Isard at The Hague, Paris, Bellagio (Italy), Zagreb, Warsaw, Stockholm and Lund, in some cases as parts of larger conferences.
- 1960 William Alonso is awarded the first Ph.D. in regional science. He proceeds on to an illustrious career at the University of California at Berkeley and Harvard University.

- 1960 The MIT Press and John Wiley and Sons publish *Methods of Regional Analysis* by Walter Isard and others.
- 1960, December The RSA Constitution is amended to permit the formation of sections.
- 1961, January 31 A letter to the membership reports on recent elections for 1961, including the election of the Honorary Chairman, Walter Isard.
- 1961, March 30–April 1 At Las Vegas, members of the RSA form the Western Section under the newly adopted Section Six of the Constitution; the name is changed to the Western Regional Science Association in 1967.
- 1961, September 4–7 The First European Congress of the Regional Science Association is held at The Hague. Participation includes 122 scholars from 29 countries.
- 1961, October 28 A meeting of RSA members to form the Midwestern (U.S.) Section is held at the University of Chicago; it is subsequently renamed the Mid-Continent Section.
- 1961, November 9 Members of the RSA hold a meeting at Atlanta to organise the Southeastern Section. The section expands to become the Southern Regional Science Association in 1972.
- 1961 *Regional Science Association Directory, 1960–1961*, is published, listing “approximately 960 members”. No other membership directory is published until 1992.
- 1962, June 17–August 9 The First Summer Institute in Regional Science is held at the University of California at Berkeley with 37 young scholars participating.
- 1962, November 12–14 The First Latin American Congress of the Regional Science Association is held at Caracas with nearly 100 participants.
- 1962, December The Council approves the formation of the Japan and Midwestern (U.S.) Sections.
- 1963, June 7–8 The French Language Regional Science Association meets at Bordeaux.
- 1962 Volume VIII of *Papers, Regional Science Association*, is issued, edited by Walter Isard and Thomas Reiner, with 10 papers from the First European Congress at The Hague. The volume includes a Summary Paper by Isard and Reiner, which became a regular feature of the European Congresses through 1975.
- 1963, September 11–14 The First Far East Conference of the RSA is held in Tokyo with over 140 participants.
- 1963, October 19 Members of the RSA meet at Boston College to form the New England Section.
- 1963, November 15–17 The Tenth Annual Meetings of the Regional Science Association are held at the University of Chicago; these Meetings are the first to be held separately from the Allied Social Science Associations. At the Business Meeting Isard reports on the formation of the Japan, Midwestern (U.S.), Norden, and New England Sections.
- 1963, December 6 The Japan Section holds its first meeting in Kyoto, following approval of its Constitution; membership is reported to be 150.

- 1963 Volume XI of *Papers and Proceedings, Regional Science Association* is issued, edited by Morgan Thomas. He edited *Papers* from the North American Meetings from 1963 through 1980.
- 1964, June 14–July 27 The Second Summer Institute in Regional Science is held at the University of California at Berkeley.
- 1964, July 11 A meeting to consider the formation of a British Section is held with 60 persons attending; however, this meeting eventually leads to the formation of the Regional Studies Association, in part because of the clause in the RSA constitution preventing attempts to influence legislation. Stimulated partly by regional science, the Regional Studies Association grows into a successful organisation with an international profile and a strong journal, *Regional Studies*.
- 1965, August 21–23 First Scandinavian-Polish Regional Science Seminar is held in Szczecin, Poland.
- 1965, August 30–September 2 The Fifth European Congress of the Regional Science Association is held in Cracow, Poland, the first meeting of the Association in an eastern European country. Several eastern European scholars present papers.
- 1965 Volume I of *Papers and Proceedings of the First Far East Conference of the Regional Science Association* is issued, edited by Genpachiro Komno.
- 1965, December 11 The first meeting of the German Speaking Section, in the process of formation, is held. The section Constitution is approved in May 1966.
- 1966 The Regional Science – Landscape Architecture Project is established in the Graduate School of Design, Harvard University under the direction of Walter Isard. Subsequently, Isard establishes a post-doctoral study program in regional science at Harvard University.
- 1967 Regional science institutes are established at the University of Aix-Marseille, Copenhagen School of Economics and Business Administration, and the Technical University of Karlsruhe, Germany.
- 1967, May Council approves the Constitution of the Brazilian Section; Antenor Silva Negrini leads its formation.
- 1967, August 26–27 The first meeting of the British Section, in the process of formation, is held in London.
- 1967, September The first meeting of the Indian Section, in the process of formation, is held in Kharagpur; subsequently, the Constitution is approved and the *Indian Journal of Regional Science* is launched.
- 1967, October 19 First meeting of the Ghana Section of the RSA is held in Accra, its Constitution being approved in 1966.
- 1967, October 29–31 The Argentine Section, in the process of formation, meets in Cordoba; the Constitution is approved in 1968.
- 1967, December *The Annals of Regional Science* is initiated by the Western Regional Science Association; following 22 years of publication under the editorship of Michael Mischaikow, *The Annals* is reorganised as a Springer journal.

- 1968, February 1–4 Leaders of the Western Regional Science Association and the Japan Section of the Regional Science Association meet at San Diego and agree to organise the Pacific Regional Science Conference.
- 1968, August 27–30 The Eighth European Congress is held at Budapest, the first Congress in which scholars from the Soviet Union as well as other eastern European Countries participate in substantial numbers.
- 1968 John Parr joins the editors of *Papers* from the European Congresses, continuing his term through 1975, after which Ian Masser becomes editor of this series.
- 1969 A new journal, *Environment and Planning*, is launched by Pion, edited by Alan Wilson. Described as an “international journal of urban and regional research”, it has a strong regional science orientation, which later is intentionally broadened to include many styles and approaches to research.
- 1969, August 26–29 The First Pacific Regional Science Conference is held in Honolulu; subsequently, selected papers are published as *Proceedings of the Pacific Regional Science Conference*.
- 1969, August 26–29 The Presidential Address to the Association is given for the first time at the European Congress. Torsten Hägerstrand’s address, *What about People in Regional Science?*, will become a classic paper in the field of travel behaviour research.
- 1969, September 1 The Italian Section of the RSA is formed in Rome in the catalytic presence of Walter Isard.
- 1969, November 7–9 The Sixteenth North American Regional Science Meetings are held in Santa Monica, CA. For the first time, these meetings are designated as a continental meeting, in co-ordination with the European Congress and the Pacific Conference. Also, contributed papers, other than Ph.D. dissertation papers, are scheduled on the programme for the first time.
- 1969, Fall The Hungarian Section, in the process of formation, holds its first meeting.
- 1969 *London Papers in Regional Science* is published by Pion, in co-operation with the British Section; after the annual publication of 21 volumes, it is replaced in 1991 with *European Research in Regional Science*. *Review of Regional Studies* is published by the Southeastern Section. The Mid-Continent Section announces plans to publish *Regional Science Review: General Theory: Social, Political, Economic and Regional* by Walter Isard, with Tony Smith and others, is published by MIT Press.
- 1970, April RSA *Newsletter* is first produced by offset printing, replacing the former mimeograph process.
- 1970, July 20–August 14 The First Advanced Studies Institute in Regional Science is held at the Technical University of Karlsruhe, Germany. Over 40 young faculty and professionals attend, together with 13 senior faculty lecturers.
- 1971, March 19–21 The First Northeast Regional Science Conference is held in Binghamton. Earlier, the Council approved the formation of the Middle Atlantic Section, bringing the number of sections to 19.

- 1971, May 27 The newly formed Australian and New Zealand Section holds its first meeting at Brisbane.
- 1971, August 28 Members of the RSA in northwest Europe meet at Rotterdam to form the Northwest Europe Multilingual Section; their Constitution is approved in 1973, following a highly successful meeting in Aix-en-Provence.
- 1971 *Regional and Urban Economics: Operational Methods* is founded by Jean Paelinck and published by North-Holland Publishing Co. Åke Andersson and Walter Isard are appointed co-editors in 1974, and the journal name is changed to *Regional Science and Urban Economics*.
- 1972, January The approval of a new Ph.D. field in regional science is announced at Cornell University; a postdoctoral research programme is also initiated by Walter Isard and Stan Czamanski.
- 1972, July 24–August 11 The Second Advanced Studies Institute in Regional Science is held in Karlsruhe, establishing the European summer institute as a regular biannual event in Europe.
- 1972, November 11 At the Business Meeting of the RSA, Isard introduces his proposal to found a new journal to facilitate publication of papers of a less technical, and possibly less orthodox, nature than found in *Journal of Regional Science*. This journal is launched in 1975 as the *International Regional Science Review*.
- 1973, January *RSA Newsletter's* Guide to Regional Science Publications lists ten serials from regular meetings of the RSA, and five publishers of regional science journals, books and monographs. The Guide to Regional Science Degree Programs lists Ph.D. programmes at Cornell and Penn, and specialisations at Bristol and Karlsruhe. Later that year, post-graduate degree programmes are approved at Bari (Italy), and Liverpool.
- 1973, September 6–7 The Second August Lösch Days are held in Heidenheim, Germany, the location theorist's birthplace. The first August Lösch prizes are awarded for outstanding regional science publications in German.
- 1973 The Regional Science Dissertation Competition is established by the U.S. Economic Development Administration; 33 entries are received for three prizes of \$700 each.
- 1974, August 27–30 At the Business Meeting of the 14th European Congress in Karlsruhe, younger scholars propose that the European Congress should be organised by European scholars, which leads to the formation of the European Organising Committee (EOC) to accept responsibility for planning and hosting the annual congresses. It is subsequently agreed that this Committee will share responsibility for organising the 1976 Congress, and have increasing responsibility for the Congresses thereafter. The first Congress fully organised by the EOC is held in London in 1979.
- 1975 The Annual Guide to Regional Science Degree Programs lists twelve post-graduate programmes in North American, Europe, Asia, and Australia. The number of serial publications with papers from conferences is six, plus eight journals and several monograph and book series.
- 1975 *International Regional Science Review* is issued by the Association, edited by Walter Isard. Subsequently, Andrew Isserman is appointed editor, and develops *Review* into one of the principal regional science journals.

- 1976 Walter Isard is awarded an honorary degree by the Poznan Academy of Economics. Subsequently, he receives honorary degrees from Erasmus University, Rotterdam, 1978; University of Karlsruhe, 1979; Umeå University, Sweden, 1980; University of Illinois at Urbana-Champaign, 1982; Binghamton University, 1997; and University of Geneva, 2002.
- 1976, October 7–9 The Spain Section organises its first meeting, and its Constitution is subsequently approved.
- 1976, November 13 The Council of the RSA agrees to the proposal of Isao Orishimo and others representing the Pacific Regional Science Conference that the papers from the Pacific Conference be incorporated into *Papers of the Regional Science Association* along with papers of the North American Meetings and European Congresses.
- 1977, May 28–30 The Canadian Regional Science Association is formed and holds its first meeting in Halifax, in conjunction with a conference of the Northeast RSA.
- 1977, July David Boyce moves from the University of Pennsylvania to the University of Illinois at Urbana-Champaign, where he joins Geoffrey Hewings, Arthur Getis, Andrew Isserman and others in building an interdisciplinary graduate programme in regional science; moreover, working with Hewings he begins the transfer of administrative functions of the RSA from Philadelphia, a process that is completed ten years later in 1987.
- 1977, November 12 The Council of the RSA proposes a Constitutional amendment to provide for committees to organise conferences in major regions, later labelled suprarregional organisations, and to publish *Papers* from these conferences.
- 1978, August 6–18 The Advanced Studies Institute in Regional Science is resumed at Siegen, Germany under the leadership of Peter Friedrich, in collaboration with Walter Buhr, Rolf Funck and others. Friedrich also organises institutes at Bamberg (1984) and Munich (1998), and becomes a leading supporter of the institute series.
- 1978, November 10 The RSA Founder's Medal is instituted and presented to Walter Isard at 25th North American Meetings.
- 1978, November 11 The Council of the RSA approves the proposal of Barclay Jones to establish the Regional Science Archives at Cornell University Library. Jones is appointed Archivist of the RSA.
- 1978, December David Boyce ends his third three-year term as Secretary of the RSA, turning his duties over to Geoffrey Hewings; however, he continues to serve as organiser of the North American Meetings, which he began in 1969 and will continue through 1989, when the organisational structure of those meetings is reformed.
- 1978 The Institute of Public Affairs at Dalhousie University commences publication of *Canadian Journal of Regional Science*.
- 1979, May The active RSA sections, associations and conference organisations are as follows: Australian and New Zealand; British; Canadian; Dutch; French Language; German Speaking; Hungarian; Indian; Italian; Japan; Mid-Continent; Norden; Northeast; Southern; Western.

- 1979, August
The Sixth Pacific Conference is organised by T. John Kim on very short notice, and held successfully at Seoul, Korea; it is the first of many conferences and workshops organised by Kim in Korea and Asia.
- 1979
Walter Isard moves from the University of Pennsylvania to Cornell University.
- 1980, May
The Polish Section is formed within the Polish Academy of Sciences at Warsaw.
- 1980, June 14–25
The First World Congress is held at Cambridge, USA. The organising committee consists of Walter Isard, Gerald Karaska and David Boyce, assisted by regional science graduate students from Cornell University.
- 1980
The Regional Science Research Institute is relocated to Amherst, MA by Benjamin Stevens.
- 1981, May
The *RSA Newsletter* shows the return address as the Observatory at the University of Illinois at Urbana-Champaign, denoting the opening of the RSA office there.
- 1981
Volume 46 of *Papers of the Regional Science Association* from the Pacific Conference is issued. This volume from the Sixth Pacific Conference in 1979, edited by Hirotada Kohno and Rodney Jensen, incorporates the Pacific Conference into the North American Meetings and European Congress series.
- 1982, September 11
Wolfgang Stolper receives the August Lösch Honour Ring from the City of Heidenheim, Germany; Torsten Hägerstrand receives the Ring in 1986, Walter Isard in 1988, and Kazimierz Dzierwiński in 1992.
- 1983, August
The Korean Section of the RSA is formed in Seoul.
- 1983, November 12
Martin Beckmann is awarded the second Founder's Medal of the RSA at the 30th North American Meetings in Chicago.
- 1984, June 4–15
The Second World Congress of the RSA is held at Erasmus University, Rotterdam.
- 1985, May 19–22
The first regular meeting of the Israeli RSA is held, and the Statutes of Association are adopted.
- 1985, November 15
At the 32nd North American Meetings, the University of Pennsylvania is recognised for its role in nurturing the field of regional science through the establishment of graduate and undergraduate programmes. Helen Wood, who staffed the RSA's administrative office from the early 1960s to 1986 is honoured for her dedicated service.
- 1987
The administrative office of the RSA moves from Philadelphia to the University of Illinois at Urbana-Champaign; Beth Carbonneau assumes responsibility for membership records, in addition to her other duties.
- 1987, August 31–September 2
The first meeting of the Turkish Section is held.
- 1987, November 8
A panel discussion on the reorganisation of the RSA is held at the North American Meetings in Baltimore. The panel consists of: David Boyce, Chair; Peter Nijkamp, European Congress; Norman Glickman, North American Meetings; and Lay Gibson, Pacific Conference.

- 1988, November 10
A meeting of leaders of the five sections in North America, and long-term participants in the North American Meetings is held in Toronto to explore the formation of the North American Regional Science Council (NARSC). The Council, paralleling the previous establishment of the European Organising Committee and the Pacific Regional Science Conference Organisation, will take responsibility for the organisation of the North American Meetings. The concept of the Council is presented to the participants of the North American Meetings on Nov. 11 at a Forum on the Future of the RSA chaired by David Boyce.
- 1989, April 2–7
The Third World Congress of the RSA is held in Jerusalem.
- 1989, August
The Revised Constitution of the RSA is presented to the membership for approval; the Constitution proposes renaming the RSA as the Regional Science Association International (RSAI) with three supraregional organisations responsible for administering the regular international meetings of the Association: the European Organising Committee; the North American Regional Science Council; and the Pacific Regional Science Conference Organisation. The RSAI continues as the primary membership organisation of the field of regional science; in addition, sections and subregional associations continue to hold meetings and publish proceedings and journals, as desired. The constitution is approved and implementation begins in 1990.
- 1989, November 10
The North American Regional Science Council is organised at the Annual Meetings in Santa Barbara. The newly formed Council takes over the organisation of the North American Meetings in Boston in 1990. At the Council meeting, the Constitution of the Chinese Regional Science Association, Taiwan, is approved.
- 1990
The final volume of *Papers of the Regional Science Association* issued as a serial appears as Volume 69 (1990). Beginning with Volume 70, the publication is re-titled *Papers in Regional Science*, a journal with four numbers per year. David Plane is appointed Editor-in-Chief.
- 1990, May
Peter Nijkamp is nominated to serve as the first President of the RSAI, a two-year term commencing in 1991.
- 1990, July 9–13
The First PRSCO Summer Institute is held in Bandung, Indonesia, continuing on a biannual basis.
- 1991, May
The active RSAI sections, associations and conference organisations are as follows: Australian and New Zealand; British and Irish; Canadian; Dutch; French Language; German Speaking; Hungarian; Indian; Israeli; Italian; Japanese; Korean; Mid-Continent; Norden; Northeast; Polish; Southern; Turkish; Western; and the Applied Regional Science Conference, Japan.
- 1991, August
The new logo of the RSAI, a cluster of four hexagons, is introduced in the *RSAl News*.
- 1991, November 9
William Alonso is awarded the third Founder's Medal of the RSAI on the occasion of the 38th North American Meetings at New Orleans.
- 1992, May 26–30
The Fourth World Congress of the RSAI is held in Palma de Majorca, Spain.
- 1992, October
The first meeting of the Chinese Section is held in Beijing.
- 1992, December
RSAl Directory 1992 is published, the first directory of the association since 1960–1961; *Directory* is published biannually, 1994–1998, and then placed on the RSAI website.

- 1993, December
The Regional Science Department at the University of Pennsylvania is closed; the graduate degree programme in regional science continues. With no faculty member in location theory, however, the faculty decide not to admit new students.
- 1995, November 11
Beth Carbonneau, Assistant Director of the RSAI, receives a Special Recognition Award at the 42nd North American Meetings, in recognition of her dedicated service.
- 1996, May 2–6
The Fifth World Congress is held in Tokyo, with the opening ceremony attended by the Emperor and Empress of Japan. On this occasion, Jean Paelinck is awarded the fourth Founder's Medal of the RSAI.
- 1997, January 1
Kieran Donaghy becomes the second Executive Director of the RSAI, succeeding Geoffrey Hewings, who served first as Secretary beginning in 1978, and then as the first Executive Director, from January 1990 when the new Constitution took effect. In his remarks on the end of his 18-year tenure, Hewings lauds the dedicated service of Beth Carbonneau, Assistant Director, and H.F. "Bill" Williamson, Jr., Managing Editor of *Papers of the RSAI*.
- 1997, March 13
The Indonesian Regional Science Association is founded in Jakarta.
- 1997, August
Peter Batey, President of RSAI, chairs a task group that recommends to the RSAI Council that arrangements be made to move *Papers in Regional Science* to a commercial publisher. After considering bids from three publishers, the Council chooses Springer.
- 1997, December
David Boyce is appointed the second Archivist of the RSAI, following the death of Barclay Jones, the Founding Archivist, at age 72.
- 1997, December 9
Benjamin H. Stevens, a leader in the field of since 1953, faculty member in regional science at the University of Pennsylvania, 1956–1972, and publisher of *Journal of Regional Science*, dies at age 68.
- 1998
The RSAI web page is established by Randall Jackson; the site is currently found at www.regionalscience.org.
- 1999, February 11
William Alonso, the holder of the first Ph.D. in regional science, recipient of the Founder's Medal, and the author of many distinguished contributions to the field, dies at age 66.
- 2000, January
An International Symposium on Regional Science is held in Port Elizabeth, South Africa at which international scholars and South African scholars meet for the first time, leading to a decision by the RSAI Council to hold the 2004 World Congress in Port Elizabeth.
- 2000, May 16–20
The Sixth World Congress is held in Lugano. On this occasion, David Boyce is awarded the fifth Founder's Medal of the RSAI.
- 2002, February 17
The RSAI Council approves a proposal to create a membership category of Fellows of the RSAI. The Council designates living recipients of the Founder's Medal as the inaugural group of Fellows of the RSAI: Walter Isard; Martin Beckmann; Jean Paelinck; and David Boyce.
- 2003, January 1
Graham Clarke succeeds Kieran Donaghy as Executive Director of the RSAI, following six years of dedicated service.
- 2003, November 20–22
A commemorative copy of this special issue of *Papers in Regional Science* is presented to Walter Isard at the 50th Annual North American Meetings of the Regional Science Association International.