

## A century of *Proceedings*: a brief history

(from: *Gems from a century of science 1898-1997, Centenary issue of Proceedings of the Koninklijke Nederlandse Akademie van Wetenschappen*, Edited by L.M. Schoonhoven, 1997)

The history of the *Proceedings* of the Royal Netherlands Academy of Arts and Sciences is illustrative of the development of scientific communication over the last hundred years. The publication of the *Proceedings* was started just before the turn of the century, apparently because the members of the Science Division felt that the world beyond the national borders should be informed of what was being discussed at their meetings. In April 1897 it was proposed that as a rule the Reports of the meetings would continue to be written in the Dutch language, but translations should be made to ensure that the contents could be more widely known. The Chairman of the Board pointed out that they were obliged to make sure their reports could serve science in the best possible way. In other words, the members of the Division, among whom there were some illustrious names, wanted to engage in the international debate, and publication of their reports to the Academy in Dutch, thus doomed to relative obscurity, did not contribute much in this direction. An Academy that took itself seriously had to publish in an international language.

Curious as it may seem, this meeting in April 1897 agreed that the language of choice for the proposed translations was French. However, within ten months, when money for the translations had been secured and the proposal was discussed in more detail, the Board had made an about-turn, no longer looking back into the 19th century, to the French roots of the Academy and the genteel use of French in the 19-century Netherlands, but fixing its eye firmly on the future, on the new century, and defending the view that the Reports of the meetings should be translated into English. It was stated that among scientists there would certainly be no fewer readers of English than of any other foreign language, but considering the dominant role of German in the sciences in the Netherlands at that time, it is surprising that according to the minutes the option of a translation into German was not officially discussed at all. This might suggest that the strongest supporters of the idea were primarily seeking the dialogue with their colleagues overseas. The minutes cite J.D. van der Waals, the Secretary of the Academy, who seems to have been one of the moving forces behind the idea, as saying that 'a serious trial' is in order, to see whether the plan can indeed be carried out, and the proposal is then accepted<sup>1</sup>.

The project was quite ambitious. The aim was to translate 10 issues per year of 40 pages each, and the translations should be published within 3 weeks after the meeting. The translations were made under the supervision of the members of a committee, who each had to find reliable translators (for instance 'a teacher at a high school or grammar school'<sup>2</sup>), preferably in their home town, who were paid 30 guilders per sheet for their

---

<sup>1</sup> Minutes of the meeting of the Board of the Science Division of the Royal Netherlands Academy of Arts and Sciences, February 26 1898.

<sup>2</sup> Minutes of the Board of the Science Division of the Royal Netherlands Academy of Arts and Sciences, March 26 1898.

translations. This seems generous enough compared to the 5 guilders per page (of over 400 words!) the translators were paid in 1975 - but by then almost all authors write directly in English, and the whole translation system is abandoned in 1976.

The aim of 400 pages per year was more than met. A record year was 1916, when 1692 pages were published. This was partly the result of the large number of papers by authors from outside the Academy, which were 'communicated' at the meeting. Apparently many of these were not actually read at the meeting, but submitted in written form, and then published in Dutch in the Report of the meeting and in English in the *Proceedings*. In 1920, the Chairman of the committee supervising the finances of the Academy, J. Schoute, voiced some very strong objections to this system at the Annual Meeting, which he called 'a luxury, that cannot be justified in any way'<sup>3</sup>. Considering the dismal state of the Academy's finances at the time and the substantial sums still outstanding with the printers, it was a valid point to make. One should bear in mind that in this era before xerox, both the Reports of the meetings and the *Proceedings*, regularly including formulas and complex tables, had to be typeset by hand, in lead, and were printed on good-quality paper. In real terms, typesetting was much more expensive than as it is now, and no doubt, as Schoute stated, thousands of guilders could be saved if this duplication was ended.

Whether as a result of this intervention or not, in the 1920s the Reports of the meetings and the *Proceedings* begin to diverge. Papers by non-members are no longer included in full in the Reports, and many papers are 'communicated' at the meeting - i.e. listed in the Reports - only with a view to publication in the *Proceedings*, which is thus transformed into an independent journal publishing work from an international group of scientists.

During World War II, publication of the *Proceedings* is discontinued from 1942 until 1945: when the Academy receives instructions that articles in English or French may no longer be published, the Board decides to publish all Dutch articles in the Reports of the meetings and suspend publication of the *Proceedings* themselves. During the war years and for some time after the publications of the Academy, and also the *Proceedings*, figure prominently in the minutes of the Board meetings, largely because there were so many practical problems to deal with, such as the scarcity of good-quality paper. During the war a smaller typeface is used for some time, to save paper, and there is considerable concern when it is discovered that one issue in 1946 has been printed on inferior, wood-containing paper.

At the end of 1945, when publication is resumed, there is already mention of splitting the *Proceedings* into 3 sections, 'to reflect the ever-increasing specialization that can be observed in academic research'. This suggestion is not taken up until the early 1950s, when the times for scientific journals are beginning to change. A small but significant step in this respect is the decision in 1946 of the publisher of the *Proceedings*, the *Noord-Hollandse Uitgevers Maatschappij*, to use the English translation of its own name from now on, also in the *Proceedings*. 'North Holland' has since become an imprint of one of the

---

<sup>3</sup> Report of the Annual Meeting of the Royal Netherlands Academy of Arts and Sciences, 1920.

largest publishing conglomerates in the world, Elsevier Science, of which the foundations were laid in the 1950s and 1960s with the rise of the scientific and scholarly journal as we now know it. The ongoing specialization in research was the key to the success of academic journals, and of publishing houses like Elsevier, with an ever-growing number of journals accommodating increasingly specialized readerships, oriented more and more towards the Anglo-Saxon world, with English as *the* language of scientific communication.

The division of the *Proceedings* into three series (A: Mathematical Sciences, B: Physical Sciences, C: Biological and Medical Sciences) finally took place in 1951; other academies already used similar subdivisions. There is a clear sense in the plan as it was presented to the members of the Science Division that one had to move with the times, but the main arguments revolve around costs and benefits. The publication of the *Proceedings* was always a heavy financial burden for the Academy, with the number of pages in the years after World War II going up again to 1600 in 1950. The new organization offered various possibilities to reduce costs. For instance, the mathematical articles from the *Proceedings* had been reprinted separately as the journal *Indagationes Mathematicae* since 1939, a process which could now be considerably simplified by placing all mathematical articles together in the *Proceedings Series A* (of which *Indagationes Mathematicae* thus became an exact copy, so that both could be printed together). It was expected that more money could be generated from sales, first by setting the subscription price of each series higher than one-third of the original price, and second by attracting new subscribers who would be interested in one series but would previously have thought the subscription price for the whole too high.

Whether this indeed worked out is doubtful. The number of subscribers throughout most of the history of the *Proceedings* was fairly stable and never very high, and it was always outnumbered substantially by the number of copies distributed free or in exchange. The exchange of their own publications is still important for academic institutions as a way of acquiring books and journals for their libraries that they cannot afford to buy and was even more widespread in the past. The exchange partners of the Academy were listed each year in the Report of the annual meeting and in 1920, for instance, the list runs to over 19 pages, with a total of well over 400 partners. It includes the major academies and research institutes in Europe and North America, as well as partners in Japan, India, Australia, South Africa, and South America.

The other channel that was of primary importance for the distribution of the material published in the *Proceedings* were the offprints for the authors. The number of offprints made available to authors free of charge was always fairly high, more could be ordered at cost price, and they were produced with great care. Articles published in 3 or 4 parts were bound together for the offprints, and it is clear from the correspondence that the offprints were regarded as very valuable. An author whose article was published in the *Proceedings* during WW II and whose offprints could at the time not be shipped to him in the East Indies,

found them waiting for him on his return to the Netherlands in 1946.

To judge the impact of the *Proceedings*, one therefore has to take into account the distribution through offprints and exchanges, and not judge by the number of subscribers only. As a commercial enterprise, the journal was never really successful, and the reorganization in the early 1950s did not solve all problems. Soon after the number of articles submitted for Series B, Physical Sciences, begins to decline dramatically. In 1955, the Board addresses an urgent plea to the members from the sections concerned to regularly submit articles of good quality. In 1959 the situation has not much improved: the June issue of Series B cannot even be published for lack of manuscripts. This problem, which may have been due to the growing number of scientific journals, all competing for the best articles, will come up again and again in the years after and will finally, in 1990, lead to the reversal to the old system of one series of *Proceedings*, in theory combining all fields except mathematics (which from then on was published only in *Indagationes Mathematicae*, still a flourishing journal), in practice publishing predominantly biological and geological papers.

The *Proceedings* was never meant to be the type of specialist journal that became so characteristic of academic communication in the last decades, nor could it compete with journals like *Proceedings of the National Academy of Sciences*, of which each series is a journal in its own right through the sheer volume produced. It has been estimated that there are now 400-500 000 academic journals of which 60 000 central enough to be indexed and abstracted. On the other hand, it has been claimed that 90% of all important articles in a discipline are published in a handful of serials and that researchers can keep up with the developments in their fields by reading no more than approximately 25 journals - largely very specialized ones that exactly fit their information needs<sup>4</sup>. In such a context, academic journals presenting original work from a range of disciplines can no longer fulfill the function they once had. A hundred volumes covering a whole century is an impressive achievement for an undertaking that was probably never expected to last that long, when it was started as 'as serious trial' in 1898.

Yola de Lusenet

Edita, publishing department of the Royal Netherlands Academy of Sciences

---

<sup>4</sup> Joost Kist, *Bibliodynamica*, Amsterdam, 1996, pp. 247-248.