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In memoriam

J.J. de Iongh (1915-1999)

Johan J. de Iongh studied mathematics, and a lot of other things, at the University of Amsterdam. He played an active rôle in Amsterdam student life and founded the students' union *Anakeion*. During the Nazi occupation of the Netherlands he spent some time in the notorious *Kamp Amersfoort*. He came under the spell of L.E.J. Brouwer and, discerning the soundness of the intuitionistic view of mathematics, he became Brouwer's associate and friend. Hearing G. Mannoury lecture on the philosophy of mathematics he developed a strong affinity for the latter's *significant* point of view. He discussed the foundations of physics and mathematics with D. van Dantzig. In 1952/53 he made careful notes of a course given by A. Heyting on intuitionistic mathematics. He had many conversations with S.C. Kleene when the latter visited Amsterdam in order to learn about intuitionistic mathematics.

From his early years as a student on he gave lectures on a wide variety of subjects, on all kinds of occasions. For some time, he was H. Freudenthal's assistant at the *Rijksuniversiteit Utrecht*, and, like him, he got involved with Mathematics Education, from the primary school to the University level.

In 1960, he became a Professor of Mathematics at the *Katholieke Universiteit Nijmegen*. He was the first Professor of Mathematics at this University, and founded the Department of Mathematics. While fulfilling this difficult task, he was inspired and actively supported by the Utrecht mathematicians H. Freudenthal and F. van der Blij. In the early years, he taught a meticulously thought out course on Mathematical Analysis. Later, the courses in Logic and the Foundations of Mathematics were his primary concern. He regularly treated the main subjects of the field, such as Recursive Function Theory, Axiomatic Set Theory, Introductory Model Theory and of course Intuitionistic Mathematics. He kept a watchful eye on the quality of the teaching at the Department as a whole and contributed courses on Problem Solving, School Mathematics from an Advanced Point of View, and the History and Philosophy of Mathematics. He always prepared his lectures with the utmost care. When delivering them, his notes in hand, he walked enormous distances, striding up and down before the blackboard, raising and lowering his voice, slowing down and accelerating his speech, according to the needs of the subject and a good theatrical performance. He advocated a broad view

and knowledge of mathematics and its applications and abhorred too narrow specialists. One of the goals he set himself and his Department was to rear excellent teachers of mathematics.

Johan de Iongh understood very well that students spend a decisive part of their lives at the university. A passionate teacher, driven by a Platonic paedagogical Eros, he wanted to know about their background and interests. He eagerly followed their attempts to organize themselves, having experienced, in his own student days, the importance of personal encounters and the possibility of making friends for life. Deeply serious about his catholic faith, he tried to create occasions where students could glimpse something of the greatness of the Christian tradition. His dreams were shattered when Paris 1968 evolved into Nijmegen 1973 and students occupied the Department for months. He felt hopeless, unable to deliver them from the false ideology in which he thought them caught. After these events, and also because of the ensuing change in the organization of the Universities directed towards "democratization", his rôle in the Department became a more modest one.

He was a man of great learning and wide interests and as much a philosopher as a mathematician. Steeped in Greek culture, he loved Plato and Euclid and advertized the Elements, in particular its first book, as exciting reading, also from the perspective of modern mathematics. He pointed out that the debate in the philosophy of mathematics between Platonists and Intuitionists is foreshadowed in the difference of opinion between Menaechmos and Speusippos, as reported by Proclus. (Speusippos succeeded Plato as the head of the Academy). He also quoted Cusanus in support of the intuitionistic point of view.

His own position in the philosophy of mathematics might be described as a platonically tinged intuitionistic one. He emphasized that a proof is never to be identified with the text in which it is expressed, and that truth is not the same as correctness. Mathematics cannot be given a foundation outside itself. It comes before logic and consists in carrying out constructions in one's own mind. Language has a rôle to play when one wants to report on one's mathematics, either to oneself or to someone else, but one is never sure that it will fulfil one's expectations. It must seem that such a view forces one into solipsism. But, as Plato explains in his Seventh



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Letter, truth may show itself, unexpectedly and suddenly, as a spark of fire, by something like divine grace, where friends have been patiently seeking after it together, for a possibly very long time.

Johan shared Plato's hankering after such events.

He strived towards perfection and could be harsh in his judgment on other people and their work, expressing his discontent impetuously and vigorously. He was most critical of his own writings and published only a very few pages.

He retired in 1984. He had problems with his health from about 1980. Somewhat lonely, and given to self-doubt, he spent his later years in his apartment across the Nijmegen Railway Station, where his loyal housekeeper, Juffrouw Marie, kept him company. Of the same age as Johan himself, she took care of him for 37 years, and now survives him.

He died on June 9, 1999. Let us remember him thankfully and respectfully. ❖