The mathematics teachers' journal *Euclides* in the Netherlands in change, 1945-1976

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Abstract

After World War II, one mathematics teachers' journal still existed in the Netherlands. Its principal editor was Pieter Wijdenes, who was dominating in many discussions on mathematics education. The content of the journal emphasized a traditional way of teaching. Major curriculum changes were not stimulated, and organizations of teachers were never consulted. But things were changing. The publisher wanted a safer financial base, and, of course, Wijdenes was becoming older. Therefore, the publisher reached an agreement with the organizations of teachers at pre-university schools, ensuring their support. Soon, in the 1950s, a newly appointed editor, Johan Wansink, even brought the journal into the hands of the organizations. Wansink also wanted an editorial team, with editors collaborating for the journal. He succeeded in this, while maintaining his leading role as the chief editor. He modernized the content of the journal, with articles on developments in other countries, and he stimulated necessary curriculum changes. Wansink remained the chief editor until 1968. His successor was Gerrit Krooshof, who had to make the journal accessible for all mathematics teachers, at any secondary school. He had to do so because of a major change in the Dutch educational system. Boundaries between the different kinds of secondary education, pre-university or not, were erased. Krooshof also had to deal with a new programme containing some New Math. He made the journal Euclides more open indeed, and provided discussions when suitable or needed. So, within 20 or 30 years, the journal Euclides underwent major changes, it had become the journal of the organizations, its editors worked in a team, its content had been made suitable for many more teachers, and discussions were stimulated. There were no worries about surviving.

Keywords: 1945-1976, teachers' journal, changes, editors, content

Introduction and method

The purpose of this contribution is to make clear the how and why of the changes in the editorial policy of the Dutch journal *Euclides* during the years 1945-1976. Hopefully, this article will give a view on developments that otherwise might have remained unknown. The research for this article was based on archives and literature. Both of these sources are, of course, manmade, so their reliability may vary, as is quite normal. Fortunately, the archives and literature contain data, propositions and views which turned out to be, in a satisfactory way, consistent. If, in some case, serious doubt is possible, this will be discussed. More problematic is that some of the sources do not completely cover the period under study. This holds for the archive of the secretary of the editorial team of the journal *Euclides*; this archive was started in 1959. From the years before, there is no such archive, and before 1956, there even was no secretary. For this reason, the period after 1959 is better

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documented. Hopefully this did not generate an unbalance in attention with respect to certain periods. Additionally, the subject of the present article has not challenged many authors so far. So, in the present case, the literature references are restricted in number. The archives used, and most of the books and articles, are in Dutch. This may be a serious difficulty for perhaps a majority of the readers of the Proceedings of ICHME-5, although some passages will be translated or otherwise made clear. One of the archives mentioned is available online. This is the complete archive of all issues of the journal *Euclides*; only the outside and inside cover texts are often missing, and also several portraits of persons were left out. The story of the journal *Euclides* is told chronologically. As a consequence, the article is not organized around particular themes. Important themes will be considered when they turn up. In this article, much will be said about the years before World War II; this may enlighten the background of the developments from 1945. When content changes with respect to the journal are carried through, just the differences in content need to be emphasized¹.

Background: the journal Euclides from its start until 1945

The journal *Euclides* was founded in 1924. It was a private initiative of the publishing company P. Noordhoff in Groningen in the Northern part of the Netherlands, together with the very successful schoolbook author Pieter Wijdenes (1872, December 22–1972, February 17), living in Amsterdam. Wijdenes had stopped working as a teacher, which was possible because of the high yields of his textbooks (Henneman & Spek, 1971).

Wijdenes had a clear motive to start a journal: a publication had appeared pleading for major changes in mathematics education, especially concerning the school geometry. The author of this publication, Tatyana Ehrenfest-Afanassjewa (1876-1964), wanted an intuitive introduction to geometry, greatly analogous to the ideas of Felix Klein (1849-1925) and his Erlanger Programm (Ehrenfest-Afanassjewa 1924). She was answered in the first issue of the new journal by Eduard Jan Dijksterhuis (1892-1965), who strongly accentuated the importance of the classical axioms. The name *Euclides* – although only chosen in 1928 - can be seen as a mission statement of the journal. Further details about the start of *Euclides* can be found in the literature (Wansink, 1974; Berkel, 1996).

Wijdenes preferred a traditional treatment of mathematics; moreover, major curriculum changes might urge him to revise his textbooks. Indeed, only few articles in *Euclides* contributed to the knowledge about new insights into learning mathematics.

¹ In this contribution the term chief editor will be used, although this was not always the official title.

Most subscribers of the journal were mathematics teachers at pre-university level. Possibly, many of them were not looking for changes either. Remarkable is that the journal hardly paid any attention to the activities of the two organizations of mathematics teachers at pre-university schools. Sometimes a lecture given at a meeting of one of those organizations found its way into the journal. But Wijdenes wished to remain independent from the teachers' organizations. In some other magazines and journals, serious attention was paid to the organizations, and also some discussions among their members became apparent, mainly concerning the contents of curricula (Smid, this publication). The organizations were named Wimecos and Liwenagel. Wimecos was an acronym for 'wiskunde' [mathematics], mechanics, cosmography; these were the subjects being taught by many teachers. Members of Wimecos were working at the school type HBS, which could be compared to the Realschule in Germany. Wimecos was a corporate body. The name Liwenagel was another abbreviation, not relevant here. Its members were working at the school type gymnasium. Liwenagel was not an official corporation, but part of a larger body of gymnasium teachers. The school type lyceum also existed, a combination of an HBS and a gymnasium. Mathematics teachers at lyceums could join the group Liwenagel.

Hence, the world of mathematics teachers, which was small, was still divided. The numbers of members of Wimecos and Liwenagel over the years are not precisely known, but did not exceed a few hundred (Wansink, 1976). As a consequence, the same holds for the numbers of subscribers to *Euclides*. Unfortunately, there are no accurate data concerning the numbers of subscribers.

The publishing company P. Noordhoff observed that *Euclides* had few subscribers, which might make long-term survival uncertain. Therefore, the publisher started talks with Wimecos and Liwenagel. The organizations, wanting to preserve the journal and knowing many of their members were already reading it, liked to have the journal as a medium for their announcements. The result of these talks was an agreement, fixed at the end of 1939, implying that *Euclides* would be the mouthpiece of the organizations, and their members would receive it, while, conversely, the organizations would pay a certain amount to the publisher. The agreement would apply from August 1940.

Wijdenes did not take part in the talks, and he will not have been enthusiastic when hearing about the agreement. He had been ignoring the organizations Wimecos and Liwenagel deliberately. Formerly, he had been an HBS teacher, but he could not remain a member of Wimecos since he was no longer a teacher. But now, he had to accept the agreement. The publisher may also have taken Wijdenes' age into account; Wijdenes was almost seventy, and it was not known how long he wanted to stay on as an editor. But nothing had been arranged about an editorial change. Wijdenes had one colleague, who had been a co-editor from the beginning in 1924. This was Johannes Herman Schogt (1892-1958), who also lived in Amsterdam, where he was an HBS teacher. Schogt was a very precise man and had written some textbooks, known as very rigorous. One can discuss his influence on the content of *Euclides* in general; but this is not the purpose of this article. Wijdenes formulated his opinion about Schogt's role on an occasional post card to the editors of *Euclides* in 1961: he claimed that Schogt's significance had been hardly 1%. But perhaps this quote is more revealing about Wijdenes himself. He could be quite aggressive.

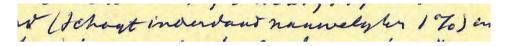


Fig. 1. Written text by Wijdenes: 'Schogt indeed hardly 1%'. Fragment of postal card Wijdenes to Koldijk, 1961, September 21. Archief van de secretares van *Euclides* [Archive Secretary *Euclides*].

From 1940, the Netherlands were involved in World War II. Already in 1940, new regulations were proclaimed, especially against Jewish people. During the wartime, living conditions deteriorated. In the last winter (1944-1945), in the western part of the Netherlands thousands of people died of hunger. Obviously, the wartime was not a time for implementing any new agreement about *Euclides*. During the last year of the war even schools were closed, and *Euclides* did not appear. Two, from many, details may be reported here. Firstly, the president of the organization Liwenagel, Christiaan de Jong (1893-1944), was shot; this happened in Leiden, where he was the deputy principal of the municipal gymnasium. De Jong was, so to say, imprudent in his statements, and the authorities at that time became informed about that. Secondly, the editor Schogt was hiding Jewish families in his private house, as revealed by his son (Schogt, 2003). These two single histories may depict the wartime atmosphere sufficiently.

Euclides' final Wijdenes years

In September 1945, *Euclides* reappeared. The first issue after World War II was a thin one, and many of its pages were dedicated to mathematics teachers not having survived the wartime. There seemed to be no new views on didactical problems. But a lack of paper made it a priori impossible for any longer article to appear in print. Shortly after the war, there was not only a lack of paper; much had to be repaired and restored. But one thing had not changed: the editors of *Euclides* were Wijdenes and Schogt. There were no indications that they would resign. Because of the agreement, the organizations Wimecos and Liwenagel had paid for *Euclides* since 1940, and they could be certain their announcements, and minutes of meetings, were published in the journal.

After some time, life became more normal. Already by the end of 1945, *Euclides* started to publish didactical and philosophical articles. In fact, there was a growing variety of contributions in the journal, written by several teachers and other people concerned with mathematics education. In 1945, G.A. Janssen contemplated teaching: teachers should believe in their subject, they should be humble, and their attitude should be serving. In 1946, L.N.H. Bunt analyzed the didactics of integral calculus, and also in 1946, G. Wielenga asked whether alphas needed to learn (some) mathematics. In 1948, P.M. van Hiele tried to design directives for mathematical didactics. In those and other articles, the readers could feel stimulated to think about their own attitudes and methods.

Wijdenes had his preferences, as usual. He apparently wanted to accentuate that *Euclides* had a close connection to the universities. He had invited about fifteen mathematicians, many of them professors at universities, to be collaborators of *Euclides*. He also tried to achieve an international standing, by choosing some collaborators working in Belgium (also in Wallonia) and South-Africa. However, hardly any of these collaborators were actually publishing in *Euclides*. Of the professors, only one, Oene Bottema (1901-1992), working at the Technical High School - nowadays Technical University - in Delft, frequently contributed to *Euclides*.

Wijdenes also published the full texts of the inaugural addresses of newly appointed professors in mathematics. For instance, he published the inaugural address of J. C. H. Gerretsen (1907-1983), a new professor at the University of Groningen, about mathematics and esthetics, a topic not strongly related to mathematics education. Gerretsen's predecessor had died in 1945 in Amsterdam as a hunger victim (Berkel, 2005, p. 500), demonstrating that chairs could have become empty due to the war – which may explain the remarkably large number of inaugural addresses in *Euclides*. Wijdenes did not forget his personal interests. One instance may be mentioned here. Wijdenes wrote an article about the way parallel lines were presented in several textbooks. Then he wrote there was a better way, which he also described. It is hardly surprising that in his textbooks this – in his view – preferable method was used (Wijdenes, 1949). In other words, his textbook was the best. *Euclides* contained few discussions about such points of view.

Suddenly, Schogt left as an editor. He had asked to be relieved from his position from January 1, 1949. This was unexpected. Official reasons were not given. Wijdenes said Schogt had an aversion to some new spelling rules (Berkel, 1996, p. 587). Very interesting is that Wijdenes immediately found a successor for him. Wijdenes knew, of course, about Schogt's stepping down before the end of 1948. But the organizations Wimecos and Liwenagel were not informed. It was only in February 1949 that the board of Wimecos discussed the responsibilities for finding a successor when an editor might leave (Archief van de Nederlandse Vereniging van Wiskundeleraren, notulen bestuur Wimecos 1949 [Archief Dutch Association of Mathematics Teachers, minutes Wimecos board 1949]). But at that time, the leaving of Schogt and the name of his successor had already been published in *Euclides*. On the Wimecos board, especially one new member felt uneasy about the rapid appointment of a new editor by Wijdenes alone. This new board member was Johan Hendrik Wansink (1894-1985). Wansink asked why the organizations had not had a say in the appointment of a new editor.

Schogt's successor, asked by Wijdenes, was Hendrik Streefkerk (1904-1985), a teacher in Hilversum. Hilversum is close to Amsterdam, so Wijdenes and Streefkerk could easily meet each other. Certainly, in Wijdenes's view, he and Streefkerk could co-operate just like he and Schogt had done for so many years.

However, the organizations were increasingly displeased about Wijdenes' rapid action. Should not they have a firm say in appointing new editors? (Archief van de Nederlandse Vereniging van Wiskundeleraren, notulen bestuur Wimecos 1949, 1950 [Archive Dutch Association of Mathematics Teachers, minutes Wimecos board 1949, 1950]). These discussions led to the appointment of two extra editors during the schoolyear 1949-1950, so that *Euclides* now had four editors. Wijdenes and Streefkerk had to accept this as a consequence of the new role of the organizations from 1940.

Then, in 1950, Wijdenes resigned. This was not unexpected, since he was 77 years old. It will always be unclear whether his stepping down was hastened by the new role of the two organizations. Wijdenes had been the chief editor for more than 25 years. Although he left his seat, he remained active, and sent articles to *Euclides* during the fifties and sixties. But many of these articles were rejected. Clearly, Wijdenes was outside the mainstream – at the most, he represented a minority. Anyhow, in his lifetime he was active for about 80 years, beginning in 1891, when he became a primary school teacher. In this article, Wijdenes' activities after 1950 will not be considered, since he did not play a significant role anymore.

Wansink coming onto stage

After Wijdenes' leaving, Hendrik Mooy (1900-1982) was appointed editor. Mooy was an undisputed authority. He was the first in the Netherlands whose thesis was dedicated to mathematical didactics, though partly (Goffree, 2002). Mooy was a gymnasium teacher in Amsterdam. Streefkerk and Mooy, together with the two representatives of the organizations, now could constitute an editorial team for the journal *Euclides*. In practice however, decisions were made by Streefkerk and Mooy. Probably it was Streefkerk, wanting to be Wijdenes' true successor, who had the lead. He was the one summing up news from the editors in the journal, if there was any. But formally there also were two editors representing both organizations.

In 1953, Wansink became an editor, as the representative of Wimecos. He immediately started with a series called 'Didactische revue' [didactical review], about foreign journals, treating developments and visions abroad. Wansink turned out to have great knowledge about mathematics education in other countries. He continued this series for many years. At that time, Wansink was the deputy principal of an HBS in Arnhem, in the east of the Netherlands. Later on, he would become principal of this school. More information about him is given by Smid (Smid, 2017).

EUCLIDES

TIJDSCHRIFT VOOR DE DIDACTIEK DER EXACTE VAKKEN ONDER LEIDING VAN Dr H. MOOY EN Dr H. STREEFKERK, Dr JOH. H. WANSINK VOOR WIMECOS EN J. WILLEMSE VOOR LIWENAGEL

MET MEDEWERKING VAN

PROF. DR. E. W. BETH, AMSTERDAM DR. R. BALLIEU, LEUVEN - DR. G. BOSTEELS, ANTWERPEN PROF. DR. O. BOTTEMA, DELFT - DR. L. N. H. BUNT, UTRECHT PROF. DR. E. J. DIJKSTERHUIS, BLITHOVEN - PROF. DR. J. C. H. GERRETSEN, GRONINGEN DR. R. MINNE, LUIK - PROF. DR. J. COPKEN, UTRECHT DR. O. VAN DE PUTTE, RONSE - PROF. DR. J. VAN ROOY, POTCHERSTROM DR. H. STEFFENS, MECHELEN - IR. J. J. TEKELENBURG, ROTTERDAM DR. W. P. THIJSEN, HILVERSING - DR. P. G. J. VREDENDUIN, ARMEM

Fig. 2. The first time Wansink's name is on the title page of an issue of *Euclides*. *Euclides* 29 (1953, September).

So, on the one hand, Wansink played his role as an editor by giving useful information to the teachers. On the other hand, he expected to have a say about the whole content of the journal. But this seemed to be out of question. He received little information about the content, and there were hardly any regular editors meetings. For Wansink, all this was highly unsatisfactory (Archief van de Nederlandse Vereniging van Wiskundeleraren, notulen bestuur Wimecos 1953-1955 [Archive Dutch Association of Mathematics Teachers, minutes Wimecos board 1953-1955])

At the end of 1954, Wansink became the new president of the organization Wimecos. For years, very few members of Wimecos seemed to have had aspirations to become president of this organization, and since the end of World War II, already three members of Wimecos had fulfilled this role. Wansink used his new position to change the policy with respect to *Euclides*. Wansink himself assumed the role of chief editor. He succeeded in implementing this change with full commitment of Wimecos, and, undoubtedly, also of Liwenagel (Archief van de Nederlandse

Vereniging van Wiskundeleraren, notulen bestuur Wimecos 1954-1956 [Archive Dutch Association of Mathematics Teachers, minutes Wimecos board 1954-1956]). In 1956, Wansink introduced a completely new phenomenon: for *Euclides* an editorial team was formed². In Wansink's team, there were six editors. Wansink was president of the team, but there were also a vice-president and a secretary (Wansink, 1956). The president consulted his colleagues about the submitted contributions, and the secretary wrote to the authors about possible improvements. So, the secretary was given a central role in the team. Regularly, there were meetings, where discussions could take place about articles, about the whole content, about the task the journal should fulfill, and about vacancies in the team. The team was working in a transparent way, especially for its members and for the boards of the organizations (Archief van de secretaris van *Euclides*, vanaf 1959) [Archive Secretary *Euclides*, from 1959]).

Streefkerk, who had been carrying out, more or less, Wijdenes' role from 1950, stepped down in 1956. He clearly could not agree with the new structure. Mooy stayed as one of the six editors. Some years later, he also stepped down, but this was for another reason: he went to Liberia for a year, to build up the mathematics education there. In 1962 he became the principal of a lyceum in Amsterdam.

Resuming, Wansink had taken full power with respect to *Euclides*. But he did this in a transparent way. Everybody could feel satisfied about this move. Both organizations had their say. No longer did one single editor make decisions concerning the content, and the editors truly operated as a team. Wansink claimed *Euclides* had become an "onafhankelijk tijdschrift" [independent journal] (Wansink, 1956). By this he meant that the editors were free in making their decisions. They were responsible only to the organizations Wimecos and Liwenagel, and not to the publisher. It should not be forgotten that Wansink had the leading role; he was the president of Wimecos and also the president of the editorial team. The journal was still published by the same company, P. Noordhoff in Groningen. The independency meant especially that the publisher had no official say in appointing the editors or in the editorial policy.

Twelve years with Wansink

Wansink stayed on as chief editor until 1968. He strengthened the position of *Euclides*, which remained the one journal for mathematics teachers at pre-university schools. The number of issues in one school year increased from 6 to 10, and simultaneously the number of yearly pages increased from about 300 to about 360; this was realized immediately in 1956.

² From 1949 there were four editors, Wijdenes, Streefkerk and two editors appointed by the teacher's organizations, but they did not form a team.

Already in the first issue of the school year 1956-1957, Wansink exposed his ideas about the content (Wansink, 1956). In his view, *Euclides* should contain:

- a. Articles about higher mathematics, if relevant for teachers;
- b. Didactical articles;
- c. Articles concerning teacher training;
- d. Information about foreign countries and foreign contacts;
- e. Recreation;
- f. Book announcements and reviews;
- g. Notifications about meetings, conferences, and minutes of meetings.

So, Wansink immediately chose a professional approach. As a consequence, inaugural addresses were no longer needed. Wansink did not propagate certain didactical principles or methods of teaching; in his opinion the one who teaches is the most important factor for pupils in their learning process. The teachers should therefore be trained thoroughly, they should always be informed very well, and their voice had to be heard when curricula were to be changed. Under these conditions, good teachers would take care of good education.

Wansink, who was a central figure in this period, had also chaired a committee proposing a new curriculum, containing differential and integral calculus. This new curriculum would be the same for the two school types HBS and gymnasium. This was something new, not only because of the introduction of differential and integral calculus, but also because it was a first trial to demolish the border lines between the two school types, both having long traditions, especially in distinguishing one from another. Wansink gave much space to discussions about the new subject matter. He also invited two school inspectors to answer questions of teachers about the new curriculum. He clearly wanted the curriculum to be accepted broadly. Therefore, in *Euclides* discussions were published which were interesting for teachers at both types of pre-university schools. *Euclides* became indispensable for them all.

Wansink also chose new editors carefully. When the first secretary left in 1959, Wansink asked a teacher he knew very well. This new secretary was Albert M. Koldijk (1917-2005), who remained secretary until 1973 (Hoorn, 2002). Koldijk fulfilled his task very well, and he also built an archive - several data in this article have been found in this secretarial archive. Wansink did not forget to ask the organization Wimecos to appoint Koldijk officially. This was a mere formality, since Wansink was still president of Wimecos. In 1956, the six editors were officially appointed by the organizations, four of them by Wimecos, the other two by Liwenagel. This was a result of the so-called independency – Wansink's term. One of the Liwenagel editors was the president of Liwenagel, Pieter G.J. Vredenduin (1909-1996), who taught at a gymnasium in Arnhem, the town in which Wansink was teaching. Wansink always carefully respected the formal structures – which were largely designed by himself. He was a strategist knowing precisely what to do and what not.

The procedure for appointing new editors had been maintained many years. But, while Wansink himself was the president (till the end of 1961) of the largest organization (Wimecos), this procedure, especially within Wimecos, did not have any unexpected outcome. In other words, in fact the editors were choosing their new colleagues. This practice continued, as is apparent from Koldijk's archive (Archief van de secretaris van *Euclides*). Therefore, a long-term result of the appointing procedure could be that, practically, the editorial team became independent. During most of the 1960s, Wansink stayed in his position as the chief editor. He had resigned from his presidency of Wimecos, possibly because he was over 65 and he was no longer teaching at a secondary school. In this period, two main developments became of special interest. Firstly, the New Math movement began to gain influence, also in the Netherlands. Secondly, professional mathematical didactics were developed. Wansink did not show much interest in the New Math, but he always stayed very interested in all aspects of the teaching. In *Euclides*, several contributions appeared about didactical insights.

In 1968, Wansink stepped down as the chief editor. He was 74, and he knew there was an experienced successor. This was Gerrit Krooshof (1909-1980), who had already been a member of the editorial team for four years. His principal work *Didactische oriëntatie voor wiskundeleraren* [Didactical orientation for mathematics teachers], containing contributions by several others, appeared in three volumes during the years 1966-1970. In the Netherlands, it was the first work on didactics covering the whole field of mathematics teaching in over one hundred years. Wansink remained active as an author and he also published articles. Among these, one is about the journal *Euclides* in the twenties (Wansink, 1974). In this article, he also gave his opinion on the content of the journal *Euclides* before 1940. Wansink observed, among other things, that educational matters in foreign countries, except Belgium and Germany, had only rarely been discussed in those early years of *Euclides*, and almost no attention had been paid at the time to the very important reform proposed by Felix Klein. An article written in Dutch, about Klein's 'Meraner Vorschläge', had appeared elsewhere (Smid, this publication).

Wansink also observed that, in the twenties, the history of mathematics was frequently discussed in *Euclides*; one may call this topic over-accentuated. On the other hand, historical views differing from Dijksterhuis' views were rarely seen. Dijksterhuis was a well-known Dutch teacher and historian of science who had rigorous ideas about how to teach mathematics, especially geometry, at school level

(Berkel, 1996). Wansink observed that, during the twenties and thirties, new textbooks had sometimes not been mentioned in *Euclides*. There seemed to have been a conflict of interests, since *Euclides*' publisher, the company P. Noordhoff, also was an important textbook publisher. Wansink stated that every important schoolbook should receive attention, notwithstanding its publisher. But this was not always the practice in the Wijdenes years. Finally, Wansink saw few contributions on major problems in mathematics education in the twenties and thirties. After World War II, Wansink himself published about the activities of the Wiskunde Werkgroep [Mathematics Working Group], founded in 1936 as the Dutch branch of the New Education Fellowship. In this Working Group, discussions took place on questions like: is mathematics a subject merely to be trained, or an essential part of general knowledge? In the early years of *Euclides*, hardly any principal discussion had been given space.

So, Wansink found that in the pre-war years, the journal had many deficiencies. He must have been motivated to improve its content when he started as the chief editor in 1956. Indeed, Wansink, when he was chief editor, took all his objections concerning the first *Euclides* decades seriously into account. Nevertheless, one can remark that in Wansink's years, a number of developments taking place in the Netherlands, were somewhat ignored. There were no great contemplative articles about the value of New Math, and also the activities of Hans Freudenthal (1905-1990) were not discussed broadly. Freudenthal was a distinguished mathematician, participating actively in the Mathematics Working Group. He organized a conference in Utrecht (1967), which may be said to have been a forerunner of the present International Conferences on Mathematics Education, and he established the international journal Educational Studies in Mathematics (1968). Interestingly, Wansink himself attended Freudenthal's conference. Wansink and Freudenthal greatly disagreed on the teacher's role in the learning process, and it seems Wansink did not want to provoke a major discussion on that theme in Euclides. On the other hand, Wansink and Freudenthal respected each other very much (Freudenthal, 1974; Smid, 2017). Wansink might have been avoiding a possible disturbance. He always was a strategist. What he did was to bring *Euclides* into the hands of the organizations and giving it a permanent role for each mathematics teacher at a pre-university secondary school.

Later on, in 1973, Freudenthal published his didactical masterpiece, *Mathematics as an educational task*. In *Euclides*, this work already had been reviewed by Vredenduin, who may have written his review without consulting the chief editor - still Krooshof at that time. Vredenduin always worked very fast; he was also one of *Euclides*' editors, and when he had an idea for an article, he wrote that article immediately, and sent it to the chief editor, who thus had no time to think about other possible authors on the same theme. Vredenduin had been an editor from 1956, so Wansink knew this style very well.

In this case, Wansink seemed to regret having missed a chance to expose his ideas on Freudenthal's book. Fortunately, a German edition of Freudenthal's book appeared, named *Mathematik als pädagogische Aufgabe*, and Wansink was able to review this so-called new work in *Euclides*. Wansink's review was an article of eleven pages (Wansink, 1975). A footnote made clear the appearance of the German edition was the reason for another review – by Wansink.

* De Engelse uitgave van dit boek werd door Dr. P. G. J. Vredenduin besproken in Euclides 49-2, oktober 1973. De redactie achtte de bespreking door Dr. Joh. H. Wansink van de Duitse uitgave belangrijk genoeg om deze naast de andere op te nemen.

Fig. 3. Editorial footnote below Wansink's review of the German edition of Freudenthal's book. *Euclides* 50 (1975), 401.

Another argument may have been relevant for Wansink. In 1970, when the third part of his own didactical work had appeared, this work received an extensive review, in the form of an article written by Krooshof (Krooshof, 1971). Therefore, perhaps in Wansink's eyes, also Freudenthal's masterpiece deserved a thorough review.

Krooshof, the natural leader

In 1968, Gerrit Krooshof became Euclides' chief editor. Wansink knew Krooshof very well. The two had met in the fifties, in the Mathematics Working Group. Krooshof was the main editor of the information periodical of the Mathematics Working Group. In 1961, after extensive preparation by Wansink and Freudenthal, a Dutch mathematics journal for secondary school students appeared, named Pythagoras. Krooshof and another teacher were the first editors of this student journal. Krooshof played the leading role as editor and made this journal very successful (Hoorn & Guichelaar, 2018). Thus, Krooshof had shown he could edit periodicals very competently. Some years after 1960, the information periodical of the Mathematics Working Group was abolished and its editors became editors of Euclides. This is the way Krooshof entered the editorial team of Euclides.

Krooshof was a teacher and deputy principal at a HBS for girls in Groningen. His school had a special department with an easier kind of secondary education, officially giving no entrance to universities, but nevertheless closely related to the HBS. There was no final exam. Krooshof was involved with the pupils there, and in November 1953, he gave a lecture about the mathematics education desirable for them at a conference of the Mathematics Working Group. In this lecture, he considered almost every aspect of the mathematics education for his pupils. He had been asking his colleague teachers about their opinions on the theme. This lecture, together with the subsequent discussion, was published in Euclides (Krooshof, 1954). Some years later, Krooshof, together with another mathematics teacher, published a textbook, just for this school type.

From 1966, Krooshof had also been the leader of the team publishing a new textbook series for the secondary schools, which was based on a Scottish series, named *Moderne Wiskunde* [*Modern Mathematics*]. This textbook series appeared from 1968, because the transformation of the school system, together with the start of a new curriculum, took place from 1968 on. The editorial team of *Moderne Wiskunde* included some reputed mathematics teachers, but Krooshof was its undisputed leader, as is told by several people concerned with *Moderne Wiskunde* (Hoorn & Guichelaar, 2018).

As Wimecos and Liwenagel were replaced by one organization, which was accessible for almost all mathematics teachers at secondary level, Krooshof had to make Euclides really accessible for those teachers. Of course, he should also take into account the new curriculum, for which new didactical tools were needed. He was well aware of these tasks (Krooshof, 1969). Krooshof had to do so without favoring his textbook series Moderne Wiskunde. That did not pose a problem for Krooshof. He always gave space to criticism (Archief van de secretaries van Euclides, passim). In his opinion, things would improve just because of serious criticism. He indeed took care to publish contributions about the practice of the new curriculum, and he certainly made space for articles for teachers at non pre-university schools. Also, in 1969, the first teacher at a non pre-university school joined the editorial team. It is debatable whether all this was completely successful or not, but apparently Krooshof made Euclides readable for a very broad group of teachers. In the same year, 1969, the list of collaborators disappeared. There is a letter from Bottema (mentioned earlier), who wondered why this list had disappeared; were his contributions no longer appreciated? To the secretary of the editorial team, he was friendly about it. Of course, he could remain as a collaborator. Only Wijdenes, whose name had been added to the list by Wansink, in December 1962, was not satisfied (Archief van de secretaris van Euclides, 1969).

Krooshof gave priority to forming a really cooperative editorial team. This may seem normal within any organization, but it was Krooshof who was realizing this in practice. He was not, like Wansink, a man asking for formal procedures, although he respected these. Krooshof will have observed the problem that many of the teachers at non pre-university secondary schools did not habitually write articles. But he published articles suitable for them, and found some of them willing to write about their experiences. Krooshof was also keen on developments concerning the development of (parts of) new curricula, as was done at the newly established institute IOWO at Utrecht University, with Freudenthal as its director. In 1972, a special double issue of *Euclides* appeared, dedicated to the expected activities of this new institute, with all articles written by its collaborators. In 1974, another special appeared, on the occasion of *Euclides*' beginning fifty years before. It was largely dedicated to geometry, since in 1924 especially geometry had been discussed, and now, in 1974, new ideas, which were principally based on ideas rejected in 1924, were being given space. This special contained contemplative articles as well as practical ones.

Finally, one can observe that Krooshof published discussions about every topic, great or small, in mathematics education. So, *Euclides* went on to be a platform for all mathematics teachers. Simultaneously, its number of readers had increased strongly, up to over 2,000 – which was not mainly Krooshof's merit, but due to the increased number of members of the new Dutch Association of Mathematics Teachers, compared to the numbers of members of the former organizations Wimecos and Liwenagel.

However, Krooshof was not completely satisfied. In the annual editorial report about the schoolyear 1972-1973, Krooshof and Koldijk stated they wanted more contributions of present interest, and they wondered whether the subscribers really liked the various sections. Krooshof and Koldijk would like to have more interaction with the readers to know such things, but, in general, they found interaction was insufficient. Moreover, promised articles had sometimes not been submitted; this holds especially for reports about the international conference on mathematics education in Exeter, held in 1972. Finally, the information to the members of the association of mathematics teachers, from the board and committees within the distance between the board of the association and the editors of their journal was increasing. Many things went well, but Krooshof always wanted to look in a mirror (Krooshof & Koldijk, 1974).

De redactie is van mening dat er behoefte is aan meer actualiteit. Zij vraagt zich af of op de min of meer geregelde rubrieken veel prijs wordt gesteld. De interactie met de lezers is op dit punt en eigenlijk in het algemeen veel te gering. Het spijt de redactie zeer dat bepaalde toegezegde artikelen, in het bijzonder die over het congres te Exeter, niet ontvangen werden. De voorlichting van de leden binnen de Nederlandse Vereniging van Wiskundeleraren door bestuur en commissies laat nog steeds te wensen over.

Fig. 4. Part from the annual editorial report about the season 1972-1973, undersigned by Krooshof and Koldijk; the Dutch text is – roughly - translated in the current article. *Euclides* 49, 201.

Final statement

In the year Krooshof resigned, 1976, *Euclides*, when compared to the journal as it was in 1950, had become a completely different journal, still thorough and sound, but focused on teachers' needs and taking modern developments consequently into

account, without avoiding discussions on great or small aspects of mathematics education, and readable for teachers at any secondary level. All these achievements were due to two successful chief editors, Wansink and Krooshof.

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