

ZMATH 2013c.00022**Christiansen, Andreas****A controversy about geometry textbooks in Norway 1835–36.**

Bjarnadóttir, Kristín (ed.) et al., “Dig where you stand” 2. Proceedings of the second “International conference on the history of mathematics education”, New University of Lisbon, Portugal, October 2–5, 2011. Lisbon: UIED, Unidade de Investigação Educação e Desenvolvimento; Caparica: Universidade Nova de Lisboa, Faculdade de Ciência e Tecnologia (ISBN 978-989-97487-2-9/pbk). 117-128 (2012).

Summary: Towards the end of the 18th century, a great effort was done to establish mathematics as a school subject in the higher education in Norway, and a school reform that was introduced around year 1800 led to proper teaching in mathematics. The mathematical community in Norway at that time was small, and all the participants did not necessarily become significant members of the society. This was a time of considerable development in the subject of mathematics, and this also influenced the debate about mathematics education. Bernt Michael Holmboe (1795–1850) was teacher at Christiania Kathedralskole from 1818 till 1826, and after that he was professor at the University of Christiania until his death in 1850. Holmboe wrote textbooks in arithmetics (1825, 1844, 1850, 1855, 1860), geometry (1827, 1833, 1851, 1857), stereometry (1833, 1859), trigonometry (1834) and higher mathematics (1849). These were the textbooks in mathematics that were predominantly used in the learned schools in Norway between 1825 and 1860, a decade after Holmboe’s death. He was probably one of the most influential persons in the development of school mathematics in the first half of the 19th century in Norway. His way of presenting the subject matter was in many ways very traditional, and they were challenged by his colleague and former mentor, Christopher Hansteen. Christopher Hansteen (1784–1873) became teacher in applied mathematics at the university in June 1814, and he was professor from March 1816 till he retired for medical reasons in 1861. Hansteen was very productive, and wrote about terrestrial magnetism, northern light, meteorology, astronomy, mechanics, etc. He received international recognition after an expedition to Siberia in 1828–30 to study the geomagnetism. In 1835, Hansteen wrote a textbook in geometry where he challenged the traditional Euclidean geometry, and he introduced the subject matter in a very “un-Euclidean” way. The controversy that broke out between Holmboe and Hansteen was very bitter, and it was noted in whether one in mathematics education should present the subject matter in a traditional Euclidean way or not. The polemics that followed in the newspapers has later been called the “dispute about parallelism”. The core of it was whether one in mathematics education should – as in the case of Hansteen – let utilitarian considerations overrule logical deduction and theoretical thinking. Both Holmboe and Hansteen published pamphlets where they justified their views. The author presents in this paper first the textbooks by Holmboe and Hansteen, and then focuses on the dispute between them. The newspaper polemic took place in “Morgenbladet” from December 1835 till January 1836, and in “Den Constitutionelle” from June till September 1836. By an analysis of these newspapers, and the two pamphlets, the author throws some light on the didactical debate, and certain features of the development of mathematics education, in the first half of the 19th century in Norway.

Classification: A30 U20 G10

Keywords: geometry textbooks; historical textbooks; geometry; controversy