

**THE PROBLEM OF THE EDUCATION IN CARTOGRAPHY
IN THE INTERNATIONAL E-MAIL SEMINAR OF CARTOGRAPHY
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Summary

After the two sessions of the International E-mail Seminar on Cartography with topics “Maps of the future” - 1998 and “Changes in Cartography” - 2000, the third session of the Seminar (October 1, 2000 - April 1, 2001) was devoted to the “Education in Cartography”.

This report is analyzing some of the results of the session and the main issues raised during the same. The report sets out also the main trends of the education in cartography and makes proposals for improvement of the cooperation of the cartographers within the frame of the "E-mail Seminar on Cartography", which was organized for fourth consecutive year by the Department of Photogrametry and Cartography at the University of Architecture, Civil Engineering and Geodesy, Sofia, under the leadership of the author. Specific proposals are made for cooperation of the cartographers in the field of cartographic education based on the "Permanent E-mail seminar on cartography".

1. Participants

The third session of the E-mail seminar on cartography which was devoted to the cartographic education ended with participation of 18 participants who presented 13 papers. Representatives of 8 countries took part in the seminar's work (7 from Europe – Albania, Bulgaria, Greece, Russia, Slovakia, Holland and Croatia and Australia). The session was attended by representatives of 9 different establishments (universities, academic institutions, polytechnic museums, etc., see fig. 1). In fact, the papers give information about a greater number of higher educational establishments and the nature of the education in cartography. In some cases, the submitted information refers to institutions of higher education established long ago and with time-honored traditions (The National Technical University of Athens, Bratislava University "Jan Amos Komenski", Sofia University "St. Kliment of Ohrid", The Zagreb University, where cartography has been taught for more than 80 years). All this is illustrated in the map of fig. 1.

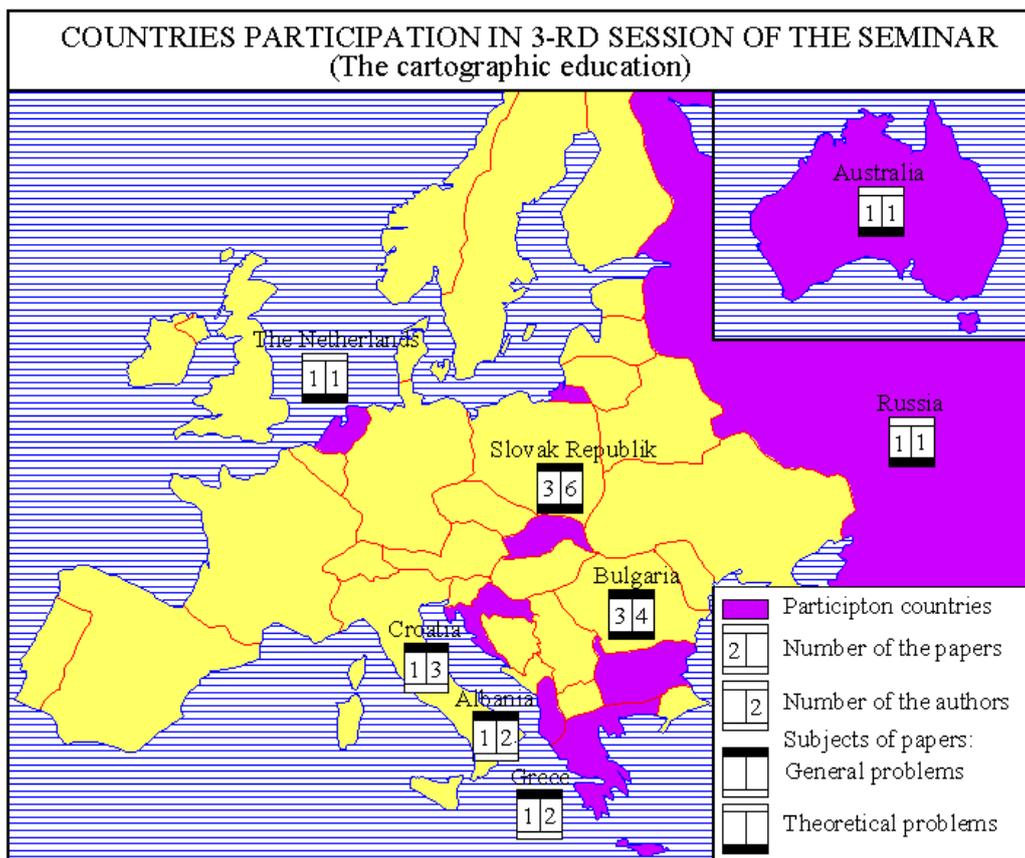


Fig. 1

The participation of lecturers from universities with technical and geographical profile gave an opportunity to present a **wider aspect** of the cartographic education. On the other hand, the representatives of the academic institutions and museums drew the attention to **another aspect of the cartographic education – its relationship with the "general public"**.

2. Nature of the papers.

By its nature the papers may be divided into three groups:

a. survey papers (Albania, Greece, Slovakia, Bulgaria). They give information about the nature of the cartographic education in the relevant university (taught subjects and in some cases the curriculum and the existing facilities).

b. theoretical papers (Slovakia, Russia, Holland, Bulgaria), considering **general and principal issues** of the cartographic education and its relation to the problems of theory and practice.

c. "intermediary" papers, which are considering the particular problems of education and its relation to the contemporary requirements and the progress of cartography (Australia, Bulgaria, Slovakia).

At this session participated also representatives of two museums – The Polytechnic Museum of Sofia, Bulgaria, and the Geological Museum of Moscow, Russia. Their reports are considering the influence, role and opportunities for "indirect impact" of these institutions on the development of the cartographic education. This, on its part, touches the extremely important issue of **promotion of the cartographic education of the society**.

3. Main problems.

The third session of the seminar raised a series of **new problems**. Some of them are debatable and other reflect the existing practice (e.g. inclusion of subjects like GIS, Multimedia Cartography, Computer Cartography, etc.).

The reports delivered at the seminar highlighted several groups of questions and their solution requires further discussions. In our opinion, the more essential questions are:

a. in theoretical aspect: 1. What are the *new requirements* imposed on education by the development of the cartography? 2. Are there "biologico-intellectual" abilities in the people for "affinity" to cartography and how this could be used in the cartographic education? 3. What are the **new trends** in the development of the cartographic science, technique and practice and how should cartographic education respond?

b. in pragmatic aspect: 1. What should be the *organization of the cartographic education*; 2. Which trends could be supported by ICA; 3. What practical steps could be taken with regard to mutual exchange of experience in the cartographic education (organization of joint seminars for exchange of experience among the lecturers in fields like preparation of course and diploma papers, engagement of the students in the cartographic research work, publishing of an international magazine (possibly in the form of "web site") "Cartographic Education" or "Higher Cartographic Education"; exchange of experience and constant relations among the departments in cartography in the European countries – regional seminars; permanent Internet seminar on the problems of the cartographic education; preparation of **typical questionnaire** for systematic exchange of information about cartographic education – amendments in the subjects, new teaching aids, new methods of education, etc.

General conclusion

1. The organized e-mail seminar was a representative one for the European cartography. The seminar was attended by lecturers and scientists from a number of prestigious universities from Europe and Australia.

2. The delivered reports show that in the cartography education have entered **new subjects** like Geographical information systems (GIS), Geoinformational Mapping, GIS Databases, Computer Cartography, Multimedia Cartography, etc.

It may be said that the fast advent of many new subjects require a **critical approach** to the achieved and **constant** exchange of experience. Internet and the practice of e-mail seminar on cartography have proven to be an exceptionally good form of cooperation among the lecturers in cartography from Europe and all over the world.

3. Creation of **Internet site of the seminar** opens extremely good possibilities to turn it into a **permanent one**. On the other hand, this favours the constant exchange of positive experience among lecturers and students.

The issue of **interaction of the seminar with ICA Commission on Education and Training** regarding the problems in teaching modern subjects, interchange of experience among lecturers and students should be discussed too.

4. Arguably the seminar discussions have shown that the **unification of the terminology** is one of the most essential issues. The trends of integration among the European countries as well as in the other part of the world will bring the creation of **common market of the cartographic labour** for which we have to be prepared.

5. The good part of the papers raised openly or implied some **theoretical questions** that should be related to the practices of education. In many cases questions arise about the relation between various branches of the science, e.g. between geoinformatic and modeling.

At the beginning of April 2001 a page of the Seminar was published on Internet with the following address:

http://www.uacg.acad.bg/UACEG_site/sem_geo/Seminar_of_Cartography.htm