

Educational Cartography: A Significant Commercial Sector

The status and quality of cartography in the school curriculum needs to be raised. Map-related pedagogy is poorly developed in most countries and non-existent in many. There is an increasing gap between how maps are used in the "real world" and how they are taught at school. Research evidence is also patchy. There is a very strong body of literature on young children's understanding of small, familiar spaces and their ability to use large-scale plans and aerial photographs. Yet there is limited evidence about the thinking of older school students using small-scale maps and "new" forms of spatial representation such as digital elevation models. Above all, we have insufficient evidence of children using GIS tools for problem solving and decision making.

The Cartography and Children Commission of the International Cartographic Association (ICA) addresses some of these issues, aiming to:

- promote the use and enjoyment of maps by children and young people
- increase understanding of children and young people's engagement with maps
- raise the standard of educational cartography.

We are achieving these aims in the period 2003-2007 by disseminating research into children's cartographic thinking and stimulating debate on the design and realisation of maps and atlases for schools.

We collaborated with the Commission for Geography Education of the International Geographical Union (CGE-IGU) in a major conference attended by more than 140 people at the University of Strathclyde, Glasgow, in August, 2004. A book, *Geographical Education: Expanding Horizons in a Shrinking World*, edited by W. A. Kent, E. Rawling and A. Robinson, was published to coincide with the event. There will be a wide selection of papers at the International Cartographic Conference in A Coruña, Spain in July 2005 and the online research bibliography on cartography and children (in several languages) on the commission's website (<http://lazarus.elte.hu/ccc/ccc.htm>) continues to be maintained. Many commission members are directly involved in editing and the production of maps and atlases for children in their own countries. These include both conventional and digital products. As an international contribution to promoting good practice we have published a collection of papers in a Forum section of the journal *International Research in Geographical and Environmental Education* (12:4, 2004).

A highly visible way of drawing public attention to the ICA is through the Barbara Petchenik Children's World Map Competition. The aim of this competition is to promote children's creative representation of the world, to enhance their cartographic awareness and to make them more conscious of their environment. The awards are given every two years, preferably at least one for each continent, with special consideration for the age of the child producing the drawing. The 2003 entrants for the competition can be seen at www.icaci.org/petchenik2003/. This extremely popular competition has now been held for ten years and Jeet Atwal plans a retrospective exhibition for the A Coruña conference. A book of selected competition maps is currently being prepared by Commission members and will be published by ESRI: we hope this will stimulate further interest in children's mapping worldwide.

Cartography and children represents a growth area in research, and educational cartography is a significant commercial sector: there is much still to do.