

A NEW GEOLOGICAL COMPILATION OF THE FENNOSCANDIAN SHIELD, NORTHERN EUROPE: TRACE OF THE SOUTHWESTWARD ACCRETIONARY GROWTH OF A MAJOR CONTINENT

1KOISTINEN, T.J., 2NORDGULEN, O., 3PHILIPPOV, N.B. and 4STEPHENS, M.
B. 1GTK, Espoo, Finland; 2NGU, Trondheim, Norway; 3NWRGC, St.Petersburg,
Russia; 4SGU, Uppsala, Sweden.

A new digital compilation of geological and geophysical data within the Fennoscandian Shield of northern Europe at the scale 1 : 1 million, and cartographic presentation at the scale 1 : 2 million have been carried out in the context of an international collaboration project involving four countries. The compilation includes the Scandinavian Caledonides because of the important involvement of Precambrian units in the thrust sheets of this Early Palaeozoic orogenic belt. The compilation work provides an up-to-date overview, combining data from national maps with information derived from recent research activities within the shield area. The compilation depicts the previously established southwestward younging of the rocks from Archaean and Palaeoproterozoic domains in the east to Palaeo- and Mesoproterozoic domains in the west. It also displays the general southwestward shift in tectonic and igneous activity with time. This is well-illustrated by a synorogenic evolution in Palaeoproterozoic rocks to the west, coeval with a late- to post-orogenic evolution in similar rocks to the east. The compilation also aims to illustrate the tectonic and metamorphic overprint of younger orogenies on older crust. Several small inset maps will be included to highlight specific aspects of the geological history of the Shield area.