CORRELATIONS AND PROVENANCES IN MESOPROTEROZOIC SUPRACRUSTAL SEQUENCES: EXAMPLE FROM THE SVECONORWEGIAN PROVINCE OF SW SCANDINAVIA

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Ion Probe U-Pb data on detrital zircons epicontinental sediments displays a minor Archaean population and a main 2.07-1.45 Ga population (Modum complex in Konsberg, n=28; Seljord Group in Telemark, n=22; Kragerø and Selås complexes in Bamble, n=20). A third generation of sediments formed in Sveconorwegian intraorogenic basins; it shows a minor Archaean population and a Proterozoic population spread between 2.00 and 1.05 Ga (Heddal and Bandak Groups in Telemark, n=33, n=46). The populations with Archaean and Palaeoproterozoic provenances peaking at 2.9-2.6 and 1.9-1.8 Ga persisted in the different generations of epicontinental sediments but were progressively mixed with Mesoproterozoic populations catched inside were acquired in seven clastic metasedimentary units of distinct ages in the Sveconorwegian Province of S Norway. Turbidite-type sediments of the Stora Le-Marstrand belt display a well-grouped zircon population at 1.67-1.53 Ga (n=9) in N Kongsberg and 1.66-1.57 Ga (n=12) in Idefjorden (SW Sweden). The sediments and associated magmatic rocks formed in an intraoceanic juvenile arc system. To the west of this belt a first generation of epicontinental sediments have zircon populations at 3.13-2.68 and 2.03-1.71 Ga in N Telemark (Hallingdal complex; n=34) and at 3.25-2.42 and 2.03-1.54 Ga in Hardangervidda (n=47). They show a continental provenance peaking at 1.88 Ga from outside the Province, typical for exposed Palaeoproterozoic and Archaean orogens in the N Atlantic regions. They attest for the presence of a western 1.7-1.5 Ga continental block, which possibly collided at 1.5 Ga with a composite active margin of Fennoscandia. A second generation of the Province.