SVALBARD CALEDONIDES DO THEY EXIST, ARE THEY A PART OF THE NORTH ATLANTIC FOLD BELT OR AN EPICONTINENTAL PLATFORM OROGEN?

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The majority of researchers are convinced that Caledonian folding and metamorphism have played a main role in the formation of the tectonic structures of the Svalbard archipelago. Precisely expressed Devonian orogenic molasse composing submeridionally oriented asymmetric graben of Andre Land on the north of West Spitsbergen's central part considered to be the important geological proof of a wide development of Caledonian tectonic events on archipelago. For Spitsbergen it is apparently considered that Early Devonian sandstones and rudaceous conglomerates of the Siktefjella and Red Bay series overlay Riphean marbles, phyllites and mica shists of the Signehamna and Generalfjella series with an erosional and sharp angular unconformity. However, nobody described the direct contact of the molasses and metamorphic complexes. Numerous faults and thrusts make difficult the observation of relationship between two sequences and the detection of a primary nature of the contact and do not permit unequivocal reconstructions of the paleogeography and tectonics of this region. Field investigations carried out on the northwest Spitsbergen had allowed to doubt in a determining part of Caledonian folding in archipelago's tectonic frame formation and to observe primary, not broken with the disjunctives, contacts between Early Devonian coarse fragmented molasses and underlying Upper Riphean marbles. In the majority of cases Early Devonian conglomerates lie on the deeply eroded surface of ancient metamorphic rocks without visible angular or azimuthal discordance. The additional argument for the benefit of field observations are the results of uninterrupted seismic profiling in Van-Mijenfjorden. So the structural disagreement between Early Devonian and Precambrian sequences was not observed and then the area of northwestern Spitsbergen was not tested any essential folded deformations in Caledonian time. The mountains created by block movements were deeply eroded and rudaceous rocks of Siktefjellet and Red Bay series accumulated in the intermon-tane basins. Hence it comes, that the north-western Spitsbergen is not a part of the Caledonian folded belt but a fragment of Precambrian platform activated in Early Devonian. Svalbardian processes of activity had caused block faulting, mountain landscape and uneven net of germanotype folds. The age of the basement on the Nordaustlandet and northern part of the Barents sea is Grenvillian according to the latest geochronological data. In the regional sense Svalbard archipelago is possible to consider as a part of the Barents-Kara platform. Svalbard was a member of extensive Arctic platform together with East and Northern Greenland in the post Grenville time, occupying a considerable part of Eurasia sector of modern Arctic ocean. Specialized field investigations directed on revealing of the primary tectonically non-dislocated contacts of Devonian molasse and underlying series and at the bottom of Caledonides in the East Greenland and on northwest of Europe are necessary.