Spitz et al se-2019-173-manuscript-version3

Control of 3D tectonic inheritance on fold-and-thrust belts: insights from 3D numerical models and application to the Helvetic nappe system

The authors have taken the suggestions into account and improved the manuscript significantly.

I have two aspects that the authors should consider:

1) The reference Ayrton 1980 is incomplete. The article appeared in Eclogae geological Helvetiae, vol. 73/1, 137-172

This article is about the Chamonix zone, which fwas formerly called Chamonix syncline. Since this point is one disagreement between the authors and myself I took the time to read Ayrton 1980 once again very carefully. It turns out as I said earlier on that most of the Triassic-Jurassic-Cretaceous cover of this zone pertains to the Mont Blanc massif and is subvertical to overturned. There are some Jurassic sediments adjacent to the Aiguilles Rouges massif. Between the two there is a socalled "median zone" which would today be called a tectonic mélange; locally it is mylonitic.

So much for a "syncline". The authors might have second thoughts on what they publish.

- 2) The publication Pfiffner et al. 2011 actually consists of two things:
- a) The map sheets, authors are Pfiffner et al. as cited, but the year is 2010
- b) The Explanatory Notes, written by Pfiffner and published in 2011.

The authors might wish to differentiate in order to give a correct reference. To help I list the lines where reference to the maps is correct and where the Explanatory notes give a better reference:

Pfiffner et al 2010: lines 91, 93, 161, 523

Pfiffner 211: lines 66, 70, 170, 538

Apart from this the manuscript can be published.

Adrian Pfiffner