100 years Jura décollement hypothesis: how it affects Steinmann's (1892) "Schwarzwaldlinie"

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Steinmann, then professor of geology at Freiburg (Germany), more than a 100 years ago wondered about the southern end of the extensional Rhinegraben and proposed that elements of the graben penetrated the contractional Jura. In particular, he recognized the "Schwarzwaldlinie" in the southern prolongation of the eastern border of the southern Rhinegraben, a line-up of topographic as well as structural irregularities. He conjectured that it was caused by normal faults of the Rhinegraben system. Subsequently—100 years ago—Buxtorf (1907) proposed the hypothesis, that the Jura was a thin-skinned nappe sheared off on Triassic evaporites. In the autochthonous basement underneath the wrinkled skin, the "Schwarzwald line" is difficult to define. It probably consists of a gentle flexure punctuated by faults that approximately coincides with Steinmann's original projection, although he sought to identify its constituent faults in the badly deformed allochthonous skin. Current data place the thin-skin elements of the Schwarzwald line in a more westerly, allochthonous position where most of them were reactivated into sinistrally transpressional structures.

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