1. Comparing field measurements of strain to trajectories of finite strain.
2. Drawing contour maps of the maxima of extension and contraction across a region. This should help in determining how reasonable the structural model is.
3. In clarifying what are the likely relationships between regional transport directions and the micro and macro-structural features we can determine from rock samples.

In summary, strain calculations in plan view give us a "2D" impression of effects out of the plane of the cross-sections we draw.

To demonstrate these techniques more thoroughly, the Andes and Jura mountains are used as two examples at quite different scales, but with many similar features

Magnetic fabric indication of Rhenohercynian deformations in the Silesian Zone of the NE Bohemian Massif

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In the Lower Carboniferous flysch rocks of the Rhenohercynian Zone in the NE Bohemian Massif, the magnetic fabric ranges from virtually sedimentary to strongly deformational in origin. The ductile deformation, indicated by magnetic fabric, gradually increases from the east to the west, being associated with the development of the spaced cleavage and slaty cleavage passing into metamorphic schistosity at the boundary with the Silesian Zone. In the crystalline rocks of the Silesian Zone, the magnetic fabric shows signs of multiple origin. In some metamorphic rocks, the magnetic foliation is parallel to the metamorphic schistosity, probably indicating that the magnetic fabric originated during metamorphic processes in which the recrystallization in an anisotropic stress field was the most important. In addition, in many metamorphic rocks, the magnetic foliation deviates from the metamorphic schistosity, sometimes very strongly. The magnetic fabric of these rocks was evidently affected by ductile deformations, much younger than the metamorphism of the rocks.

The orientations of the magnetic fabric elements are very similar in the sedimentary rocks of the Rhenohercynian Zone and in those metamorphic rocks of the Silesian Zone, which show the post-metamorphic deformational magnetic fabrics. This implies at least one strong deformation phase that affected both the Rhenohercynian and Silesian rocks. A hypothesis can be thrown out that the stresses responsible for creation of the structure of the Rhenohercynian propagated also into the Silesian Zone.

The origin and evolution the seismic belts of northeast Russia

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Two large seismic belts traverse Yakutia: the Baikal–Stanovoy (BSB) to the south and the Cherskiy (CSB) to the northeast. These extensive epicentral belts mark the Eurasian–North American–Amur lithospheric plate boundaries in northeast Asia. In the Late Cenozoic the boundaries represented fault systems of specific kinematics and different morphology and growth dynamics. The BSB marks the Eurasian–Amur boundary stretching from Lake Baikal to the Sea of Okhotsk. The crust experiences tension in the western BSB (the Baikal rift) and compression in its eastern part (the Stanovaya folded area). Therefore, normal faults common in the western part grade eastward, from the mid-section of the Olekma river, into dextral sublatitudinal strike-slip faults and associated thrusts.

In southern Yakutia, compression has led to a specific mountain relief, e.g., the Jugjur–Stanovaya folded area and continuous Predstanovoy