

TecTeach

Geology deals with studies of the Earth in all its complexity and its evolution in the course of time. An important aspect of teaching in structural geology has always been the study of geological features in outcrop in the field. Research in some disciplines, like structural geology and sedimentology, strongly depend on data on the 3D geometry of structures observed in outcrop. It is therefore unfortunate that field-oriented teaching to undergraduate and graduate students is shrinking rapidly. This has several reasons; field teaching can be time-consuming, expensive and uncomfortable. There is also an increasing fascination with security and safety issues, and field work is considered to be potentially dangerous by an increasing number of ever more urbanised administrators, teachers and students. We believe, however, that it is impossible to study geology without a sound background of what geological structures look like in the field. An important basis of sound research will disappear if we allow field oriented teaching to be further weakened. Fieldwork is regarded as an "old-fashioned, low-technology activity". Fieldwork is hot (or cold), tiring (mountains) and dirty, and is relatively cheap and therefore "cannot be real science". In some cases, the association of "foreign travel=holiday" also plays a role. These reactions are enforced by funding organisations and some Journals preferring thematic lab-studies over field-studies. The negative reactions to fieldwork are strange and unfortunate; it is similar to the medical profession abandoning the investigation of "real people" as dirty and cumbersome, and instead embarking on the study of virtual people.

The turn-away from field-based research is especially bad for structural geology and tectonics, since field relations are the most crucial source of information for these branches of geology. The situation is getting so bad, that some young scientist finish their degrees without proper contact with the field, leading to oversimplified and in many cases pointless research. Many respondents feel that it is time to try to stem the tide and promote field-based research and teaching. It is with these thoughts in mind that the IUGS has created a new commission for the promotion of structural geology and tectonics, TecTask. One of the main aims of TecTeach will be promote field-oriented teaching. We believe that the most efficient way to do this is by promoting and organising short field workshops where students can learn how to interpret deformation structures in outcrop, and how to link interpretations in outcrop together to a large-scale tectonic model. Since there are many types of deformed rocks and tectonic setting, this cannot be taught in any one area or country. We will set up a global database of suitable areas for field courses in a wide range of different settings and lithologies, and will find teachers who can lead workshops in such areas. The aim is to set up a permanent series of workshops where graduate students, postdocs and also potential teachers can learn, teach build up networks and maintain and improve field based knowledge of structural geology.