SRIKANTIA, S. V., GANESAN, T. M., RAO, P. N., SINHA, P. K. and TIRKEY, B., (1978) Geology of Zanskar area, Ladakh Himalaya. *Himalayan Geology*, v. 8, part II, pp. 1009-1033.

SRIKANTIA, S. V. and BHARGAVA, O. N., (1976) An outline of the structure of the area between the Rohtang Pass in Lahaul and the Indus valley in Ladakh. *Himalayan Geology*, Seminar, New Delhi, Section II, (Preprint).

SRIKANTIA, S. V. and RAZDAN, M. L., (1980) Geology of part of Central Ladakh Himalaya with particular reference to Indus Tectonic Zone. *Jour. Geol. Soc. India*, v. 21, no. 11, pp. 523-545.

——— (1981) Shilakong ophiolite nappe of Zanskar Mountains, Ladakh Himalaya. *Jour. Geol. Soc. India*, v. 22, no. 5, pp. 227-234.

AUTHOR'S REPLY

1. Specimen A lies in a side-valley which drains a syncline containing Spiti Shale, though this is not shown on Fuchs (1979) map—it is a small outcrop. It lies above the Kioto limestone, and the only significance of the ammonite found is that it shows that the overlying shale is part of the normal sequence: i.e. that the shale is not a much younger unconformable or tectonically positioned mass.

2. I purposely did not give a name to the Jurassic flysch in which ammonite B was found. Whether it is called Spiti Shale, Lamayuru Formation or what depends on one's tectonic interpretation. The lithology (quartz-greywacke) is the same as adjacent outcrops of interbedded alternating thin fine-grained sandstones and shales of definitely flysch facies (flysch refers to thick sequence of re-deposited deep-water clastics). Since this sequence lies within a chaotic assemblage of lithologies, including ophiolitic masses and shelf limestone masses, it seems likely that it is allochthonous and part of the thrust slices; though I have only studied the Spong valley region and this may not be a general feature.

3. The sequence from which ammonite B was obtained is definitely *not* part of a 'shallow euxinic sequence' which Srikantia calls the Spiti Shale, and which definition I agree with. It should be expected in a melange belt, from which ammonite B comes, that many differing lithologies are juxtaposed, and it is quite likely that shelf masses (including Spiti Shale) and deeper water 'oceanic' masses (Lamayuru flysch) are present together.

I find it difficult to see how one can map an ophiolitic melange as a shelf formation (Srikantia and Razdan's 1980 Spiti Shale of their plate I).

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