seems to be moving from one quagmire to another, from one falsehood to another. It would be in Gupta's own interest to put a halt to it now and own up his lapses. Only then, the coming generation of earth scientists and posterity will pardon him for polluting the paleontologic data base in the Himalayas.

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Reply by John Talent and Others

V. J. Gupta's attempted rebuttal of our article in the Journal of the Geological Society of India (Talent et al. 1989) and other responses (Gupta, 1989, 1990a) are agglomerations of prevarication, irrelevancy, mendacity, non-sequiturs, and allegations of conspiracy. Strong words, but we must state the facts as they are.

Accusation denied

Gupta asserts that Talent has spearheaded a tirade against him 'without looking at the material, without visiting and working in the areas under discussion and basing all allegations/observations from the published literature'. Remarkably similar assertions have been made by Gupta's close friend and supporter, J. B. Waterhouse (1989, 1990); points Waterhouse has attempted to make have been addressed elsewhere (Talent, 1990a, 1990b).

To make the above statement, Gupta must have ignored the initial monograph on the problem (Talent et al. 1988), to have never checked the resthouse registers in, inter alia, Hundwara and Kokarnag (Kashmir), Koksar and Keylong (Lahaul),

Dogadda (Garhwal), and Kaja (Spiti), nor the guest register of the 'Sunbeam' houseboat on the Dal Lake in Srinagar, the base for field investigations in the Vale of Kashmir by Talent et al. in 1971, or the Panorama Hotel in Kathmandu. He must have forgotten that Talent and five of his colleagues (P. J. Conaghan, R. K. Goel, P. A. Jell, N. G. K. Nair and C. McA. Powell) visited Chandigarh on their return from Kashmir in 1971 and had discussions with him and a number of his colleagues. On a number of occasions Talent has examined such of Gupta's collections as are on display in the museum of the Geology Department of Panjab University (Talent, 1990a, p. 405). Gupta has had ample time to make a positive demonstration of good faith such as insisting on leading an expedition to some of his sites or to a selection of dubious sites in Nepal and the Lesser Himalaya accessible at all seasons.

Carboniferous corals

A casual reader may be misled into believing that Gupta has responded satisfactorily regarding the Kato-Gupta paper on Carboniferous corals (Kato and Gupta, 1989) but should refer to our earlier paper (Talent et al. 1989, pp. 578-579) for an extended analysis of this unhappy affair.

Gupta (this volume) insists he was in Japan in October 1989 and on 7 October 1989 held discussions with Kato about their joint paper, but this is false. Gupta in fact visited Sapporo the previous year; the paper was accepted for publication on 30 November 1988 and was published in February 1989. Not only does Gupta have his dates mixed up but, contra Gupta, Kato's attention was not drawn to Gupta's prior solo publication 'of a short note regarding the occurrence of the corals under discussion to have priority' (!). Kato has already pointed out (in Talent et al. 1989, p. 579) that he had no knowledge of Gupta's three prior publications, recycling the same specimens three times (the Kato-Gupta paper was a fourth round)—each time with different localities—until he received a letter from Talent dated 15 June 1989, 8 months after Gupta had been in Sapporo.

Mix-up of Plates

Gupta pleads 'poor drafting' of the locality paragraph in his prior 'short note' on these corals (Gupta, 1985)—sloppily confusing Tanze and Surichun La—and claims that the Baralacha Ban report of these corals was due to a mix-up of plates and manuscripts. He implies that the various editors must shoulder some of the blame for not having sent him 'proofs of the paper... before publication'! But can one seriously accept such excuses when the matter involves four papers, involving the same coral specimens, published in 1971, 1985, 1986 and 1989 with localities respectively 'Ichnar, Kashmir', 'near Surichun La, Ladakh' 'Baralacha Ban, Lahaul' and 'near Tanze, Ladakh'? For references and further discussion see Talent et al. (1989) and this volume.

Carboniferous conodonts

We stand by our concordance of the 8 views of 7 specimens of Lower Carboniferous conodonts already tabulated (Talent et al. 1989, Table I). We leave readers

to get out the publications we have cited (Talent et al. 1989, pp. 576-577) and make their own decisions on this and other cases of recycling. As Gupta insists his specimens are available for verification, he should back his words by providing two sets of identical specimens for the 'near Tanze' (Ladakh) and 'Takche Nala' (Spiti) reports. He should then hand them over to any one of the organizations probing his scientific activities for an independent opinion for or against our allegations of recycling.

When pertinent correspondence disproved Gupta's assertion that Walter Sweet had 'confirmed' his identifications of Triassic conodonts from Tandi in Lahaul' (Talent et al. 1988, pp. 12-14), he asserted (Gupta, 1990a) that David L. Clark had in fact confirmed them—a claim, in turn, finding no support in the Gupta-Clark correspondence (Talent, 1990a).

Corals missing from H. P. Lewis collection

As clearly stated already (Talent et al. 1989, p. 578), the facts regarding the corals missing from the H. P. Lewis collection (formerly at Aberystwyth) did not become known until 30 June 1989. That no one confronted Gupta about the missing materials when he visited Aberystwyth in 1985 is quite understandable! His evasive defence is, therefore, irrelevant. The question remains: How did this material get into his hands and why did he claim in print (Gupta, 1969) to have found one of these specimens at 'Kotsu Hill', Kashmir?

Gupta's claim never to have 'carried out fieldwork nor visited the localities' where specimens of the fish Youngolepis praecursor can be collected may be true but is no proof of innocence. In 1980 he visited Beijing in connection with the Symposium on the Qinghai-Xizang Plateau (25 May-13 June) and—contrary to what he has asserted (Gupta, 1989)—visited the Institute of Vertebrate Palaeonto-logy where specimens of Y. praecursor were made available to him for examination, but not as gifts (Chang Mee-mann, pers. comm.). This was just prior to his visit to Philippe Janvier in Paris (in connection with the International Geological Congress, 7-17 July, 1980) bearing a specimen of this uniquely Chinese form. The circumstances connected with this affair are very curious indeed.

Pleistocene Vertebrates from Nepal

The facts regarding the vertebrate faunas from Gidhniya in the Dang valley western Nepal, and from Lukundol near Chapagaon in the Kathmandu valley have been clearly stated; both are phantom localities as far as the faunas reported by Gupta are concerned (Talent et al. 1989). Gupta's attempted response is an exercise in obfuscation. That his reports may have been uncritically accepted in earlier review articles has no relevance, nor have recent reports of Pleistocene vertebrates from 'downstream of Chobar Gorge' or the 'road from the Terai into Rapti Deokhuri valley'. Presence/absence at the specified localities is what matters. Our analysis, based on extensive field work by Gopal Dongol, Jens Munthe and Mac West, therefore, remains unmodified.

Gupta's allegations, (no localities, no names, no cited publications!) of scientists visiting areas without permission of the Government of India is without relevance

to the issues under debate. Never having done so ourselves, we are unable to comment on this, nor can we decipher what he is driving at in his assertion that he cannot 'go against the Law of the Land'. We would not like to hear of anyone doing so, Gupta or anyone else!

Allegations of conspiracy

Gupta alleges what must be a virtually global plot to denigrate him: an illusory conspiracy. Why anyone would want to organize a conspiracy against a solitary geologist – among untold thousands globally and unknown to most of his accusers—beats us! Had there been a positive response to the copies of the initial monograph (Talent et al. 1988), airmailed to various organizations and individuals (including V. J. Gupta) by the Director of the Senckenberg Museum in late 1988, his accusers—15 in print at the last count – would surely not have squandered time and energy on this unwholesome matter. Gupta's responses, though inept, have left us and others with no alternative but to reply.

Many of Gupta's 118 co-authors are now on record (Talent et al. 1988, 1989, 1990; Lewin, 1989; Ahluwalia et al. 1989) as having been duped, or have admitted such in unsolicited correspondence. Some of these are among the 13 people who have personally visited Gupta localities and found them to be spurious. Others, suspicious of materials sent to them, formally declined or deliberately avoided co-authorship; among such are Art Boucot, Brian Engel, Charles Ross, Walter Sweet and Willi Ziegler.

Conclusions

In a form of the Lincoln defense that 'You can't fool all of the people all of the time', Gupta (1989) has argued that it would be impossible to deceive so many co-authors over a period of nearly 25 years. We, along with Holden (1989), believe that 'Gupta may have come pretty close to proving Lincoln wrong'.

What has mattered to us is that the truth should be told, and that by doing so we might terminate an unacceptable enterprise that has perverted the course of science. In order to restore public confidence in our science, it is essential that the matter be brought to a conclusion swiftly and honestly (Radhakrishna, 1989; Anon., 1990), not behind closed doors but in an open forum.

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Reply by U. K. Bassi

- Prof. Gupta in his comments on my paper has avoided the points which were Taised by me including that of the Devonian ammonoids from the Muth Formation. Instead he has raised extraneous and uncalled for issues. My reply not only caters to these comments but also provides additional information on his work from some other areas.
 - 1. The stratigraphic positions assigned to different formations are based on the lithostratigraphic equivalence with the well established stratigraphy of the Spiti Basin and cannot be termed arbitrary though also not final. His statement that the ages assigned are open to modifications on the basis of future work is true for all scientific publications.
 - 2. Prof. Gupta's accusation of not referring to some publications is baseless. Every paper on Kinnaur basin, without exception, has been referred including the one on the Muth Fossil (p. 593).
 - 3. The age of the Takche Formation, contrary to what Prof. Gupta writes, as is stated in the text, is based on Bhargava and Bassi (1986). The lower