cient scientific heritage. Any effort even to introduce such details in school syllabi should not be encouraged. However, it is important to work out available details from our scripts and make some of these available to modern scientists. Some of these materials can be introduced as relevant examples wherever adequate. There are well-known examples of our rich scientific and cultural heritage. One of the most important issues is development of Ayurvedic medicine and its importance is becoming competitive to modern medicine. This has become an

eye opener and tells us that we should give due importance to our past achievements in an organized and systematic manner.

In Indian conditions, science teaching is not properly organized. The content of school books should continuously be updated for developing broader base of school children and motivating them to go a step further and turn the pages of reporting journals *Nature* and *Science*. For developing such a motivation, it is essential that the school teachers be continuously exposed to newer develop-

ments in different fields of science. It is unfortunate that such a motivation is rarely provided for school teachers within the country.

1. Kaur and Chaudhari, Science, 2003, 618.

R. N. SINGH

Mitra Niketan Colony, Banaras Hindu University, Varanasi 221 005, India

Need for scientists to be more vocal

Aruna Dhathatreyan's article is too mild to exhort the scientists to be more vocal in the interests of world peace and human welfare. The grand total effect of 250 years of modern science had pushed the world to the edge of a disastrous biochemical-nuclear war and the scientists maintain studied silence as if they were a third party with no allegiance to the cause or effect. It is not the 'detachment of scientists from general human affairs' as Aruna thinks it to be, that led to this reticence but pure self-preservational tendency that cautions them from being 'vocal' which otherwise might commit them to social and political implications. It is good if scientists are non-political but they cannot afford to be apolitical or non-human in their findings and inventions. Factors like peace, poverty and development are determined by scientific progress as much as the deviant activity of mafia gangs, underworld goons and international criminals. The philosophy of science has incorporated the facts of social justice and social injustice too. The ethical blindness of science is shadowing the marvels of its human welfare activity like medicine, surgery, vehicular movement and gadgets of happiness. The egalitarian trends of science like nonracial, non-regional, non-subjective attitudes and destruction of the tenets of caste and creed by revealing universal human physiology are overpowered by vested socio-political groups turning out genocidal weaponry with science and technology in the name of X, Y or Z factors which suits them for the occasion. And science finally would be blamed as the 'rogue' that destroyed beautiful nature and humanity at large. The role of scientists is not merely an explanatory tone of the implications of the inventions of weapons or non-weapons, but shall be a philosophical appeal to political bosses to desist from misusing science.

Scientists have a greater role to play when the societies are opting for 'knowledge states' with accumulation of reason, rationale and relative happiness instead of 'nation states' which are made up of religion, language and cultural tradition. This crucial transition, already set-in, is gaining pace all through the world. Scientists need to explain to the social groups and political sections of the incipient transformation which makes the countries better places for human dwelling with higher stages of civilized living. They have to assert that misuse and abuse of scientific discoveries impede the very progress of science. The scientists in groups have to develop 'common amplified volume' of their voice in denigrating political misuse of scientific and technological discoveries. The reticence of the scientific community, as Aruna complains, out of vested interest or infested disinterest, shall surely turn out to be dangerous to humanity at large as non-scientific blockheads will be riding the tigers. Really the world at large is ignorant of the alleged hazardous biochemical weapons piled up by the Iraqi 'despot' and wanted to be destroyed by the American 'democrat'. Scientific community serving the bosses on either side is tight-lipped for obvious reasons. The rest of the community at least, could have spoken of the dangers of the Blast-Baghdad horror movie.

CHANDU SUBBA RAO

Department of Geophysics, Andhra University, Visakhapatnam 530 003, India

^{1.} Aruna Dhathatreyan, Curr. Sci., 2003, **84**, 1282.

Kosambi, D. D., Science, Society and Peace, Academy of Political and Social Studies, Pune, 1986.