

per second for the systems developed by NDS for physical security. For these reasons, a further increase in neutron output will not reduce the required measurement time. Because luggage inspection requires relatively low amounts of irradiation, an increase in intensity and lifetime is not needed for the NDS sealed-tube neutron generator.

As Fainberg points out, the most effective system would integrate different types of sensors and detectors. An option that he does not mention is to directly use complementary and synergistic information to maximize detection probability while minimizing false-alarm rates and inspection times. For example, rather than sequential AND/OR logic, the actual integration of the data from an x-ray unit linked to an associated-particle system would provide improvement. In a piece of luggage, a suspicious geometric object imaged by x-rays could be probed for high explosives by the associated-particle method. This would substantially increase the detection confidence of the combined x-ray-associated-particle system while reducing the overall false-alarm rate.

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NSF's New Home

Kudos to National Science Foundation (NSF) director Walter Massey for indicating his unwillingness to dip into the NSF research and development (R&D) budget to fund the NSF's new building in the event that it receives no overall budget increase in fiscal year 1993 (Science-Scope, 24 July, p. 471). Many who have visited the existing quarters agree that a new home is well deserved. But Massey, in the tradition of his predecessors since Vannevar Bush, has signaled with his stance that NSF remains committed to optimizing substantive opportunities for basic R&D funding. Like scientists at many campus laboratories supported by NSF, Massey and his staff continue to forego many of the amenities enjoyed by colleagues in other careers so that available funds can be applied to the substance of scientific work.

The upgrading of both the aesthetic and functional quality of the space in which science is administered and conducted cannot be long ignored, however, particularly if science is to succeed in attracting its share of top new talent. For now, Massey seems to recognize that NSF might need to continue its vigorous promotion of science from existing offices, along with many working scientists who

strive to continue to produce pathbreaking research in some of the more cramped corners of our nation's campuses.

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Epistemology and Anthropology

If paleoanthropology is really so "underaxiomatized" and "conceptually or paradigmatically" impoverished (G. A. Clark, Letters, 31 July, p. 597), we'd better get it straightened out epistemological-wise. I'm on Clark's side, I think—we'd better rush a few axioms, paradigms, and even lowly concepts in there, refute a few Popperian hypotheses for good measure, and knock those protocols into shape.

But it isn't just Clark's epistemology that constitutes a "deplorable situation." Perhaps I could be allowed to say where I'm "coming from" with an empirical observation (no "explicit . . . inferential basis" here). If Clark doesn't start paying the English language the respect it deserves, it will be more than the "epistemological infrastructure" of his discipline that goes down the tubes into the great paleoanthropological midden. "I can't stand it any-

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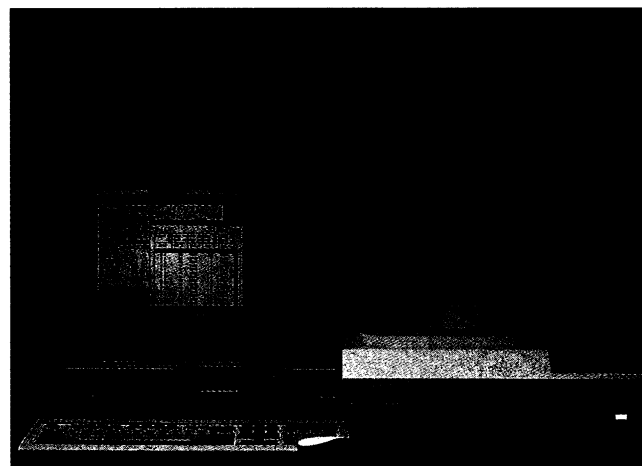
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