Science, Technology and Reparations: Exploitation and Plunder in Postwar Germany *by John Gimbel*
(Stanford University Press, California, 1990), pp. xv + 280, $US28.50, ISBN 0-8047-1761-3.

The author was there at the time, serving as a military interpreter in postwar Germany; to this is attributable both the strength and the weakness of *Science, Techology and Reparations.* Gimbel has written about this experience on other occasions, but only long after leaving Germany did he begin to appreciate the extent to which German technology had been requisitioned by the Allies. Yet, as for the white South African forced to defend apartheid, personal experience is a poor substitute for detailed analysis. A scholar with much less knowledge of postwar Germany would have tackled this investigation very differently. The result would have lacked the mass of primary evidence which Gimbel provides, but greater reliance on secondary material and on theory would have given the context and structure that are missing here.

Though not a scholarly work in a strict sense, this is still a remarkably fine account of how the United States plundered German technology, and of the total inability of the Allies to distinguish legitimate reparations from war booty and sheer loot. US technical experts were hurriedly recruited, thrust into uniform, awarded the rank of colonel, and sent on their way to unearth whatever they could. Armed with the authority of the Field Information Agency, Technical (FIAT, appropriately enough), these 'capon colonels' could take whatever they liked, and did — from research notes and blueprints to tons of machinery. Some of this seized technology was destined, at least initially, for the military; much more was intended for commercial application through reports made widely and cheaply available by the Publication Board in Washington, and through direct transfer to American companies.

Justification for what became a highly organised and extensive programme of exploitation was always confused. While there was still war in the East, it seemed both legitimate and prudent to seize what German technology might be used by and against the Japanese. Later, the military was deemed to have some rights to German military technology, rights which, in the aftermath of total war, were inexorably extended to all technology — even that for the manufacture of teddy bears. It seems clear now that this transfer should have counted toward reparations payable to the United States, but placing a value on the intangible is never easy. Moreover, as the FIAT programme became ever more rapacious, any attempt to legalise, even to dignify, what was happening by bookkeeping became increasingly inadvisable. Not until 1947, when the Russians complained about the magnitude of these hidden reparations and estimated their value at $10 billion, did the United States take action. The programme was abruptly halted. Unofficial German estimates, and the author's own reckoning, suggest that Molotov may have been fairly near the mark. Yet the United States has never admitted publicly that what its officials described as "the greatest transfer of mass intelligence ever made from one country to another" was actually worth anything at all.

Until the cessation of the programme, US government officials were encouraging US firms to grab what they could of the bonanza: "Scores of documents on new products and production methods filed in German offices and laboratories are there for the taking". By May 1946, the Publiation Board had sold 400,000 reports compiled by the colonels for $3 or $4 each, the cost

of printing. From one of these, the US rubber industry discovered koresin, the tack-producing agent required for synthetic rubber. But most technology acquired, and the most valuable part, was probably never described in public reports. That went direct to US firms which had sent employees, dressed up as colonels, specifically to acquire it. Gimbel gives dozens of examples of the intellectual property stolen by individual American firms.

One feels for German companies encouraged to reconstruct themselves by official allied policy for German self-sufficiency, and yet subject to other policy which stripped them of any technology of any value. For example, the metals and chemicals firm, Degussa, received 200 visits from investigators in one year. Bosch was visited 73 times in February 1946 and over 100 times in March. Their only compenstion was the cost of reproducing documents. Failure to co-operate might have attracted accusations of Nazi sympathy and would certainly have dashed the hopes of individuals seeking employment in the United States. The United States was somewhat slower than her allies to appreciate the value of the human container of information. Immigration to work for US industry was arranged, even for ex-Nazis, but Truman proved reluctant to stimulate what he called "competition for our own home boys".

What Gimbel has given us is a thorough account of technological carpetbagging in the chaos of postwar Germany. With the return of some semblance or order, brigandry sanctioned by government was no longer acceptable. What, one wonders, became of all the technology seized by American privateers? What happened to all that taken by the British, the French, and the Russians, who seem to have been equally active? And how, having divulged its key technology, did Germany manage its economic miracle? Interesting questions, but beyond the scope of *Science, Technology and Reparations.* Gimbel, though, has allowed them to be asked and has prepared sound foundations on which others may eventually construct some answers.

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Setting Directions for Australian Research *by the Australian Science and Technology Council*
(AGPS, Canberra, 1990), pp. xvi + 94, ISBN 0-664-12379-6.

Technology Strategies in Australian Industry *by The Centre for Technology and Social Change, University of Wollongong (Ron Johnston, Don Scott-Kemmis, Terry Darling, Fran Collyer, David Roessner and John Currie),* (AGPS, Canberra, 1990), pp. vii + 89, ISBN 0-644-12441-5.

Small Country, Big Science *by the Australian Science and Technology Council*
(AGPS, Canberra, 1990), pp. viii + 60, ISBN 0-644-11982-9.

Increasingly over the past few decades, firms and governments alike have come to see themselves as actors striving to achieve objectives in an environment of