

tation may be on the increase in Sweden, France, and the United States but may represent quite different patterns in the three nations. Over time and within nation states, divergent patterns may be appearing that will confound predictions that marriage and therefore fertility are on the wane. Formal, state-sanctioned marriage has virtually disappeared among younger Swedes, but Sweden now has one of the higher total fertility rates in Western Europe and is one of the few countries to be experiencing a minor resurgence in its birth rate.

Of course, we are not going to wait until the dust settles to draw implications from the bewildering changes that have taken place in the institution of marriage. The dust may never settle. Indisputably, the meaning of marriage has been changing and with it the form of the family. As an institution, marriage still represents a pooling (though less a gender-based exchange) of labor. No longer rooted in a domestic economy, partners are more interchangeable. As the bonds of marriage have become more voluntary, the premium placed on emotional gratification has risen. Children are valued not for their contribution to the domestic economy as they once were but for their emotional "pricelessness," to borrow a term used by Viviana Zelizer in her brilliant analysis of the changing meaning of children (*Pricing the Priceless Child*, 1985). Accordingly, the quality (as measured by the emotional rewards they offer to their parents) of children rather than their quantity has assumed much greater importance in the reproductive process.

For better or for worse, these changes have profoundly and permanently altered the marriage institution. Davis clearly feels the change is for the worse, though not all contributors to *Contemporary Marriage* share his judgment. Davis's view that the emerging form of the family in the West will ultimately compromise its political and economic position is debatable. European nations such as West Germany and Switzerland, boasting strong economies, are experiencing high rates of cohabitation, late marriage, and low fertility. Perhaps the other shoe has not yet dropped; perhaps it never will.

Undeniably, the transformation of the family in this country has produced serious dislocations for women and children, which are well described in the papers by Thomas Espenshade (on marriage patterns of blacks and whites) and Lenore Weitzman (on effects of changes in divorce laws) contained in *Contemporary Marriage*. The economic and emotional restructuring of the family that began well before the 20th century has been accomplished only rarely by design and

often with considerable resistance. There is no lack of suggestions for meliorating the problems created by this rapid transition. Almost all are distasteful to those who would like to see the old order restored rather than replaced. The problem is, as Davis concedes, that there is no way of putting Humpty Dumpty back together again.

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Spoils of War

The Paperclip Conspiracy. The Hunt for the Nazi Scientists. TOM BOWER. Little, Brown, Boston, 1987. x, 309 pp. \$17.95.

This is the third book by Tom Bower to center on the moral compromises made by the United States and Britain during the occupation of Germany following World War II. The two earlier works dwelt on the deficiencies of denazification and the protection of Klaus Barbie and other former Nazis by American intelligence officers. This one chronicles the drive to exploit or keep out of Soviet hands numerous German military researchers and technicians, often at the price of overlooking or even concealing their involvement in Nazism and war crimes.

As befits a former producer of documentaries for the BBC, Bower's skills lie in assembling and telling a story. His readable narrative begins arrestingly with the contention that German military technology was superior on land and sea and in the air to that of the western Allies during the Nazi era, and, with few exceptions, to that of Soviet Russia. Indeed, the victors not only were aware of this in 1945 but also determined to rectify the situation in the only way they thought reliable—by plundering vital know-how. The result was a competitive scramble after German scientists, engineers, blueprints, and testing facilities that took most extreme form in the massive deportations conducted by the Americans from Thuringia and by the Russians from East Berlin before the year was out.

However, when U.S. personnel hit on the notion of employing their human prizes on research projects stateside, the round-up became enmeshed in the larger conflict over American occupation policy between officials intent on punishing Germans for past misdeeds and those preoccupied with their future uses. As the former group, concentrated in the middle echelons of the state and justice departments, persisted in demanding

careful background checks before issuing visas to German technicians, the latter group, comprising mostly soldiers and senior diplomats, resorted increasingly to deception. Not content with sanitizing security reports on the scientists selected for "Project Paperclip"—some of whom had been members of the Nazi Party or the SS and associated with the use of slave labor or experimentation on concentration camp inmates—American military agencies even spread the completely false claim that the typical German recruited had been arrested by the Gestapo and imprisoned. Haltingly but inexorably, Bower maintains, such mendacity succeeded. By 1948, the United States emerged with the lion's share of potentially valuable German scientists, some of whom made important contributions to American armament in the Korean War, not to mention to the conquest of space. But among the perhaps 800 technical people brought to America were also many of only modest gifts, whose chief attraction was their willingness to work on military projects at low pay by American standards. In the end, Project Paperclip amounted to turning a blind eye to evil for the sake of expediency.

Despite the author's fluency and his apparently diligent work in recently opened American and British records, he has not written a valuable book. It offers little information, aside from anecdotal detail, not already available in Linda Hunt's succinct and generally accurate essay in the *Bulletin of the Atomic Scientists* (April 1985, pp. 16–24). Moreover, Bower is given to erroneous and exaggerated statements on matters small (Heidelberg is not on the Rhine; p. 226) and great. His discussion in chapter 1 of the evolution of the *Blitzkrieg* concept and of tank tactics prior to World War II borders on mythology; his claims for German military equipment late in the war are vastly overdrawn (particularly with regard to the Me163 rocket plane, the Me262 jet, and ground-to-air missiles; see Karl-Heinz Ludwig, *Technik und Ingenieure im Dritten Reich*, Königstein, 1979); and his attribution of the postwar German economic miracle to hidden loot from the conquest of Europe in his somewhat gratuitous final chapter is simply fantastic. Throughout the book, Bower characterizes individuals as "ardent" Nazis, usually without specifying, let alone evaluating, his evidence. One person whom he dubs a "known war criminal" (Karl Wurster, p. 97) was, in fact, acquitted on all counts by an American court that did not shrink from condemning other defendants. By proceeding thus, Bower seriously misleads his readers, for the genuine difficulty of affixing these labels was critical to the

context in which Project Paperclip unfolded.

Related to this pattern is a final major shortcoming. Bower avoids openly confronting the hard issues raised by his topic. Was the policy of minimizing or ignoring the complicity of German scientists with Nazism wrong? In all or only some cases? By what criteria? What other courses were feasible and preferable? The tone of this book consistently implies a negative judgment of Paperclip and its protagonists, but Bower begs the tough questions. He thus neither leaves the reader free to reach independent conclusions nor provides firm rationales for his own.

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Radio Days

Inventing American Broadcasting, 1899–1922. SUSAN J. DOUGLAS. Johns Hopkins University Press, Baltimore, 1987. xxx, 363 pp., illus. \$29.50. Johns Hopkins Studies in the History of Technology.

Inventing American Broadcasting opens with the arrival of Guglielmo Marconi in New York in 1899 to report the America's Cup yacht races by wireless. When it closes, what is generally considered America's first radio broadcasting station, built by Frank Conrad of the Westinghouse Corporation in Pittsburgh in 1920, is on the air. Between those events, "wireless," the sending of dots and dashes between individual stations by electromagnetic waves, evolves into "radio," with its potential for broadcasting words and music to all who tune in. In the United States between 1899 and 1920, Susan Douglas asserts, the concepts of radio and broadcasting were "socially constructed" out of elements of technology, entrepreneurship, economics, military needs, and newspaper reporting. The constructors included inventors and entrepreneurs; industrialists and government bureaucrats; naval officers and international negotiators; and boy wireless operators and newspaper reporters. Their construction remains with us today.

Treatment of the construction process is thematic. The author takes a broader view than earlier treatments of this era in radio history, such as Gleason L. Archer's *History of Radio to 1926* or W. Rupert Maclaurin's *Invention and Innovation in the Radio Industry*, fast-moving and clear narratives that leave the impression that this early period was either a preface to the rise of RCA or a monument to heroic inventor-entrepreneurs. Merits of Douglas's thematic ap-

proach include absence of technological or business jargon; freedom from hero worship; effective combination of archival and newspaper sources; and a linking up the specifics of the radio story with broader themes.

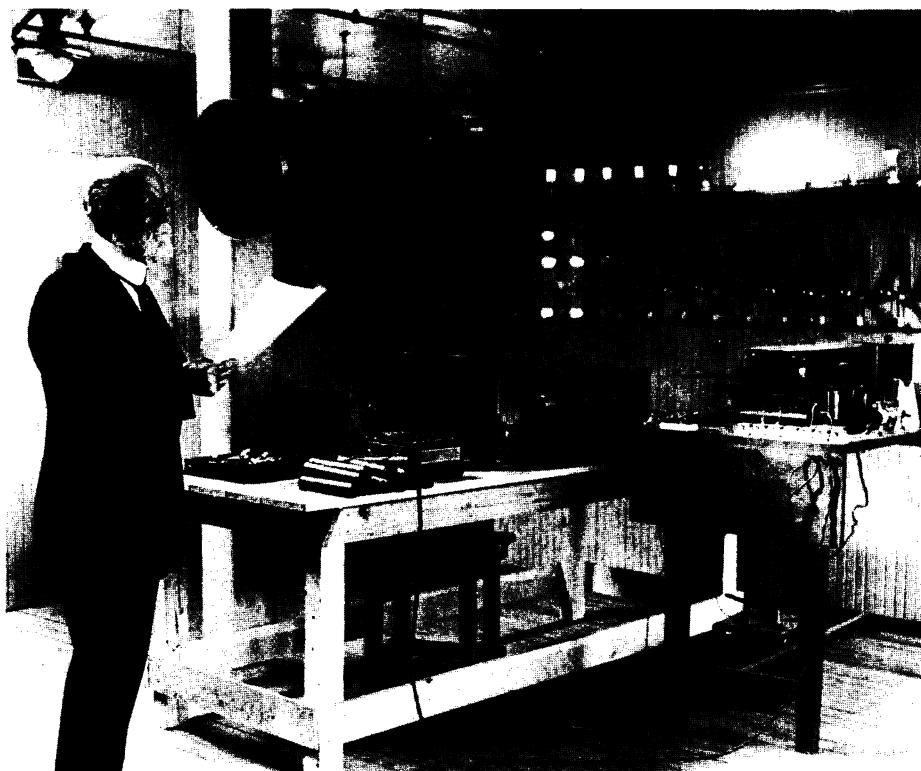
One of those themes is the social control of technology. Initial journalistic visions saw radio as a democratic technology free from the kind of corporate control that Western Union exercised over the telegraph and AT&T over the telephone. That vision foundered. However etheric the medium, the sources and receivers of the messages were constructions of metal and wood, often large, expensive, and intricate. Someone had to pay to build and maintain them. The money had to come from either the public at large, through a socialized scheme, or from specific customers, through a capitalist scheme. One guess which the United States chose.

There are at least five basic ways to make technology pay: sell equipment; sell service; sell stock; sell the right to use ideas; or sell advertising. Marconi and his backers chose to sell a service, communication to ships at sea. To do so they sought "monopoly control of the aether," refusing to communicate with rival transmitters or receivers. Reaction against this approach fueled two decades of

international attempts to regulate radio and helped sustain radio backers within the U.S. Navy and the ranks of independent U.S. inventors in their efforts to find a rival approach more protective of American nationalism and capitalism. It also sparked proposed legislation (which never came close to passage) to turn radio into a U.S. government monopoly. In the end, the money to sustain radio (and profit investors) was made by selling equipment, milking patent monopolies, and selling advertising. How this came about is one of the major thematic threads of this book.

A second major theme is individuality versus systems. Douglas revives a character ignored by other radio histories, the boy wireless enthusiast. These enthusiasts sensed the potential of broadcasting. But they also became nuisances by interfering with the rescue of survivors from a sinking *Republic* or *Titanic*. The balancing of system needs against experimentation rights, boy enthusiasts and independent inventors against government, military, and corporate bureaucrats, is another thematic thread.

Such issues are well illuminated by the author's approach. The book does not supersede other ways of looking at the history of radio, such as those of Archer and Maclaurin, or Hugh Aitken's studies of the



"The first lecture being delivered by radio from Tufts University, 1922." To many commentators, "the educational possibilities [of radio] seemed unlimited. . . . 'Who can help conjuring up a vision of a super radio university educating the world?' asked one writer. With radio, minds could 'be detonated like explosives.'" [From *Inventing American Broadcasting, 1899–1922*; Clark Collection, Smithsonian Institution]