Notes on the Underground: An Essay on Technology, Society, and the Imagination.

By Rosalind Williams. Cambridge, Mass.: MIT Press, new edition, 2008. Pp. xi+283. \$19.95.

When first published in 1990, Rosalind Williams's *Notes on the Underground* was widely, and on the whole enthusiastically, reviewed. Since then it has become something of a classic in our field. But it has been out of print for some years, and MIT Press has seen fit to publish a new edition. This should be taken with a grain of salt. The main body of the text is a facsimile of the first edition; only a new seventeen-page afterword justifies the suggestion of novelty.

Notes on the Underground is a complex and ambitious book that purports to explore the significance of spaces below the surface of the earth, for primarily late-nineteenth-century science, technology, and the imagination. Chapters are devoted to emerging "earth sciences" like geology, archaeology, and anthropology; to ambitious underground civil engineering projects like tunnels, sewers, subways, and bomb shelters; and finally to portrayals of the underground in "fantastic" popular literature by the likes of H. G. Wells and Jules Verne. It remains a fascinating—indeed sublime—book, but like some earlier reviewers I feel that the awesome breadth of Williams's subterranean sleuthing does not in the end provide a *coherent* conception of the nineteenth-century underground.

Williams uses her new afterword to make amends—of a sort. Rereading *Notes*, she identifies five "bedrock passages" that purport to reveal the book as a genealogy of environmental degradation—and of the fantasized sublimation of that degradation—in late-nineteenth-century France and Britain. On this view, Notes was a prescient historical survey of technologies, knowledges, and fantasies that, since the book's publication twenty years ago, have starkly revealed themselves as the scaffolding of global climate change. Williams opens with a passage showing that the "underground" in Notes was never simply a physical location under the surface of the earth, but rather a catchall trope for "human built," highly technological environments. This "underground" excluded, repressed, and even extirpated nature and in this sense also entailed a fantasy of human victory over nature including victory over death. The question was now where the surface was located. In a striking citation from the final pages of the 1990 edition Williams shows herself arguing that by then we were no longer living on the surface of the earth above some metaphorical "underground," but that we ourselves had become the troglodytes. The surface of the earth had moved up to the outer limits of the atmosphere, and we, like Captain Nemo, were living "underground" at the bottom of that vulnerable and increasingly threatened sea of air. The remaining passages make it clear that escape from

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this novel predicament is no foregone conclusion. It will be necessary to repudiate "Baconian Science" along with the rapine technologies it fosters and to embrace an "Arcadian Science" informed by ecological sustainability. However, this is a slim hope. Another ominous "bedrock passage" suggests that the despoiling of nature may be a cultural and political reflex aimed at keeping nature's subversive capriciousness at bay and that we are thus inevitably doomed to destroy the ecological underpinnings of our brave new "undergrounds."

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Williams devotes the rest of the afterword to tracing the genealogy of a new, robust, interdisciplinary "cable of inquiry" into our neo-troglodyte environmental predicament, to considering how humanistic threads in that cable might help us to come to terms with collective grief over the loss of nature, and finally to musing on the advantages of the essay form in writing about the underground. And then she arrives at death's door. Why, she asks herself, has she been so blind to the evident links between death and the underground? With a tacit nod to Freud and Mircea Eliade she wonders if collectively going "underground" is not a kind of expatiatory "death cult" rooted in rage against our inevitable personal mortality. The bitter truth is that "environmental sustainability requires that humans regularly die." This leads Williams to the revealing conclusion that her book is actually less about a particular space than about a particular time: the time in which the human race did an about-face on nature and began "the establishment of the human empire on earth," the time after which the evolution of humanity became congruent with the evolution of the earth.

Williams's new afterword raises a lot of questions. For one thing, the focus on climate as the key ecological issue, while dovetailing neatly with a new conception of "underground," begs a lot of other crucial environmental and ecological issues that lack the appropriate verticality. Pollution of surface soil and waters, depletion of natural resources, and destruction of wilderness are all pretty much flatland issues and only speak to "underground" as a general trope for the time of the "human empire." Also, there is a manifest tension between the integrity of the 1990 volume as a study of the "underground" and Williams's present attempt to force the book into the straitjacket of a prescient climatological tract. There is much of value in the original book—for instance, the wonderful chapter on the sublime—that is tacitly marginalized in the new reading.

If the truth be told, the new afterword is less relevant as a retrospective reassessment of an old book than as a think piece for a potential new one. Even if the seeds of this new book are rooted in the old one, they germinate neither there nor in the brief compass of the new afterword. I'm afraid it's going to take another book to do justice to these new inspirations. So, if you've already read the first edition of *Notes*, cherish the memory but

do not go out and buy the "new edition." Wait for Rosalind Williams's next book.

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La Presse et les périodiques techniques en Europe, 1750-1950.

Edited by Patrice Bret, Konstantinos Chatzis, and Liliane Pérez. Paris: Éditions L'Harmattan, 2008. Pp. 324. €25.

Sixteen authors and their institutions, twelve chapters, and references to some three hundred periodicals in Europe—this range presents the reviewer's challenges. This book is the product of five years of research and discussions in working groups at the editors' institutions: Centre A. Koyré (Patrice Bret); Université Paris-Est (Konstantinos Chatzis), and Conservatoire national des arts et métiers (Liliane Pérez). In their five-page introduction, the editors summarize their broad vision of technology (technique), longue durée, and comparative approach. The longue durée is reflected in the title (1750 to 1950) and the long runs of many of the periodicals.

Readers will not find in this short introduction a rich analysis or synthesis, as might be expected from such experienced historians of technology. The editors acknowledge the embryonic state of research on the technical press and state their intent to promote international research. They list common working themes such as the material means of production and distribution; leadership, authors, and readership; effects on disciplines or specialties; and the nature of the information and the forms or styles of the periodicals. But they do not describe a well-developed framework conducive to an integrated study of technical periodicals, nor do they analyze relationships among the chapters, periodicals, and contexts treated in the book. As a result, we learn much about selected periodicals and their individual contexts, but little about the overall context (e.g., social, technological, and economic change) and dynamics of the world of periodicals publishing over the given time period.

Despite the reference to Europe in the title, the editors acknowledge that France dominates the geographic landscape of the book. England, Spain, and Russia each have a role in one of the chapters. Since the authors focus on selected periodicals, the following list of titles suggests the range of coverage: Almanach sous-verre, Collection, for Improvement of Husbandry and Trade (England), Memorias de agricultura y artes (Spain), Annales des mines, Journal des voies de communication/Zhurnal putej soobshchenija (Russia), Nouvelles annales de la construction, L'Enseignement professional, Annales du conservatoire des arts et métiers, Journal des géomètres, Journal