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IN THIS ISSUE

CNN

"You cannot qualify war in harsher terms than I will. War is cruelty, and you cannot refine it; and those who brought war into our country deserve all the curses and maledictions a people can pour out. I know I had no hand in making this war, and I know I will make more sacrifices to-day than any of you to secure peace." — William Tecumseh Sherman

SHOT IN ATLANTA!

SHOT

SOCIETY FOR THE HISTORY OF TECHNOLOGY

Business Matters

If you received an envelope with your copy of the newsletter, your subscription to ***Antenna*** and membership in the Mercurians end with this issue. Two year subscriptions are US$5 for delivery to the United States and US$10 elsewhere. Please make all checks payable to SHOT, write "Mercurians" on the memo line, and mail to:

Mercurians
P.O. Box 534
College Park, MD 20741-0534

Request for Proposals
SHOT/AHA Booklet Series

Five of the SHOT/AHA booklets are now in print, with three more slated for publication in the next year. Because the series is gaining momentum, the editors, Pam Long and Bob Post, believe it is time for a booklet on communications. Most likely this would address communications in American history, with a scope similar to Bob's on transportation. But the editors would be delighted to entertain more sweeping proposals for a booklet on communications in world history. This would be quite a challenge--the outside limit for total length is around 100 pages which allows for about 25,000 words of text and 5,000 to 10,000 for notes and bibliography, plus illustrations--but it certainly is within the realm of feasibility. Anyone interested in submitting a proposal of either sort is encouraged to order the current set of booklets to gain a sense of their range and approach. Instructions for ordering can be found on the SHOT website.

Also on the website are detailed guidelines for proposals. These should include a CV, a two-or-three-page sketch of the major historical themes and historiographical issues, and an outline—the more detail here, the better. But please consult the website, not only for particulars on guidelines, but also for information on booklets currently in print. If there are questions, address them directly to Pam and/or Bob.

The SHOT/AHA booklets are proving to be very popular, particularly for classroom use. More than 150 of them were purchased at the Toronto SHOT meeting alone, and the AHA has been promoting them with great enthusiasm at its own meetings and through its newsletter and the *American Historical Review*. This is a remarkable opportunity for any scholar(s) prepared to synthesize a vast range of information on one of the most significant topics in the history of technology—communications. Co-authored proposals are welcomed, and even encouraged. Proposals are peer reviewed, and should be sent to Pam and Bob at pamlong123@cs.com and rpost@intercom.net.

Atlanta Meeting
Important Announcement
For Graduate Students

If you are a student who will be attending the Mercurians' lunch meeting during the SHOT conference in Atlanta on Friday October 17th, please let us know in writing or via e-mail. We are again fortunate to be able to offer free lunches to students, but we need to know your names in advance so that adequate preparations can be made. Either write to the Mercurians at P.O. Box 534, College Park, MD 20741-0534, or (better) send an e-mail to: Mercurians@go.com. Of course, everyone also must register for the meeting at the time they register for the conference.

News About Mercurians

The Business History Conference recently has announced that Mercurian Ken Lipartito will succeed Will Hausman as the next editor of its journal, *Enterprise & Society,* the journal of record and the pre-eminent voice in business history. It offers a forum for top-quality research on the history of business during any epoch and in any area of the world, as well as their larger political, institutional, social, and economic contexts. *Enterprise & Society* encourages scholars to submit studies of business that arise from collateral social sciences or humanities disciplines.

Lipartito is professor and chair of the Department of History at Florida International University, an active member of the Business History Conference, a prolific researcher and writer, and an internationally-recognized leader in the field. He also has been a long-time subscriber to *Antenna* and a member of the Mercurians, and he has researched and published extensively on the history of telecommunications. Lipartito is assembling a distinguished group of associate editors. They are actively soliciting manuscripts for future issues of the journal and are especially interested in seeing contributions from *Antenna* subscribers.

The homepage for *Enterprise & Society* is: http://es.oupjournals.org/

Guidelines for submitting papers are at: http://www.thebhc.org/publications eanshome.html

If you have an article—or an idea for an article—or any questions, send them to:

Professor Ken Lipartito
Department of History
Florida International University
Miami, Florida 33199

Things to do in Atlanta

Communications History In Atlanta

While in Atlanta, Mercurians may be interested in visiting the BellSouth Telephone Museum, located on the plaza level of the BellSouth Center at 675 West Peachtree Street, NE. The museum is two stops south of the conference hotel on the Marta train line, and is open Monday through Friday from 11:00AM to 1:00PM. It also is available for school or group tours, and a private tour for Mercurians is a possibility. The museum's telephone number is: 404/529 - 0971.

Alternatively, Mercurians can tour the museum "virtually" on their computers by visiting the URL: http://www.bellsouthgapioneers.org/Museumtemp.htm

Steam Engine Visit

Few people know Atlanta is home to a Corliss 350-horsepower Steam Engine built in 1895 by the William A. Harris steam engine company of Providence, Rhode Island. The Randall Brothers bought the engine between 1898 and 1910 for use in their woodworking plant, where it remained in operation for over eighty years until retired over concern for stack emissions by the EPA. Today, it is an ASME (American Society of Mechanical Engineers) Historic Mechanical Engineering Landmark. See http://www.asme.org/history/roster/H110.html.

The steam engine remains in its original location in the Randall Brothers' plant, a 15-minute bus ride from the conference hotel. The Randall Brothers began as part of the shift toward factory-produced stairs, windows, doors, and molding. Today, as featured on *This Old House*, they are a leading manufacturer of custom architectural millwork and building materials. For more information on the Randall Brothers, visit their website: http://www.randallbrothers.com/

Through a special arrangement with Randall Brothers, Mercurians can view the steam engine and tour their woodworking facility on the morning of Thursday, October 16, by indicating their interest via e-mail at: Mercurians@go.com. Those without e-mail access can write to Mercurians, P. O. Box 523, College Park, MD 20741-0534. The deadline for signing up is September 20.

PanAmSat Tour

PanAmSat, the first commercial global satellite services operator, maintains a fleet of about two dozen satellites and delivers television program signals around the world. In 1983, HBO became one of the first broadcasters to use a PanAmSat Galaxy satellite to distribute television programming to U.S. cable operators and home television viewers. In 1989, CNN became the first international broadcaster to use the world's first private-sector international satellite, PAS-1, to distribute television programming in Latin America. Today, PanAmSat is the world's leading provider of commercial satellite services to the television industry.

Among PanAmSat's clients today are entertainment companies such as AOL Time-Warner, the BBC, China Central Television, Discovery, Disney, NHK (Japan Broadcasting Corporation), and Viacom; news agencies, including the Associated Press and Bloomberg; networks, such as ABC, the BBC, and ESPN; and such corporations as Hughes Network Systems, General Motors, and DaimlerChrysler.

The PanAmSat satellite fleet also provides a range of services to other industries, including private network and Internet connections as well as telephone, fax, and data services. The company provides telecommunications services in the United States, Latin America, Africa, Europe, and Asia.

We have arranged a tour of the PanAmSat satellite tracking and other facilities located near Atlanta. The company is providing free transportation from the hotel. The tour will take place the afternoon of Thursday, October 16. If you are interested in participating in the tour, please indicate your interest via e-mail: Mercurians@go.com, before September 20. Because of the available transportation, seats on the tour are limited.

Tour CNN Studios in Atlanta

Mercurians attending SHOT in Atlanta may be interested in touring the CNN studios. Tours last 50 minutes and are given seven days a week between 9:00 am and 5:00 pm, beginning every 10 minutes. Tickets are $8 for adults, $5 for children (6 to 12), and $6 for seniors (65 and older). Reservations are highly recommended, because tours tend to sell out hours and sometimes days in advance. Call 1-877-4CNNTOUR or 404-827-2300 between 8:30 a.m. and 5:00 p.m. ET., Monday through Friday, to make reservations.

For more information—or to take a "virtual" tour of the studios—visit their URL: http://www.cnn.com/StudioTour/

Atlanta

Lunch Meeting

The Mercurians are meeting this year in Atlanta on Friday October 17th, at Noon, in a Vietnamese restaurant near the hotel. Everyone will pay for their own meal at the restaurant, and you will need to indicate your attendance at the meeting on your SHOT registration form. Students will have their lunch paid for, but they must make their attendance known in advance. See "Atlanta Meeting: Important Announcement," on page 2.

The name of the restaurant, Cha Gio, comes from a typical Vietnamese crispy spring roll whose main ingredient is minced pork to which either prawns or crab can be added for savory flavor.

The restaurant is owned and operated by a Vietnamese family who offer food made from fresh ingredients at a reasonable price and friendly service. The menu sticks to entrees that are American friendly- not adventurous, but satisfying. Selections include beef, pork, chicken, and shrimp, with vegetables, noodles, and rice. The average entree ranges in price from $7-10, and comes with rice.

A recent review stated: "Cha Gio offers simple, straightforward Vietnamese cuisine that should satisfy even the most squeamish diner. While there are certainly more authentic Vietnamese restaurants around, Cha Gio offers the Asian version of comfort food- no frills, but it makes one feel good. People swear by their soups to help alleviate colds and the flu. The restaurant is family owned and service is very friendly and genuine. While it often gets overlooked by the flash and glitter of other Midtown dining spots, Cha Gio has been around for years and has won many awards for its high quality food."

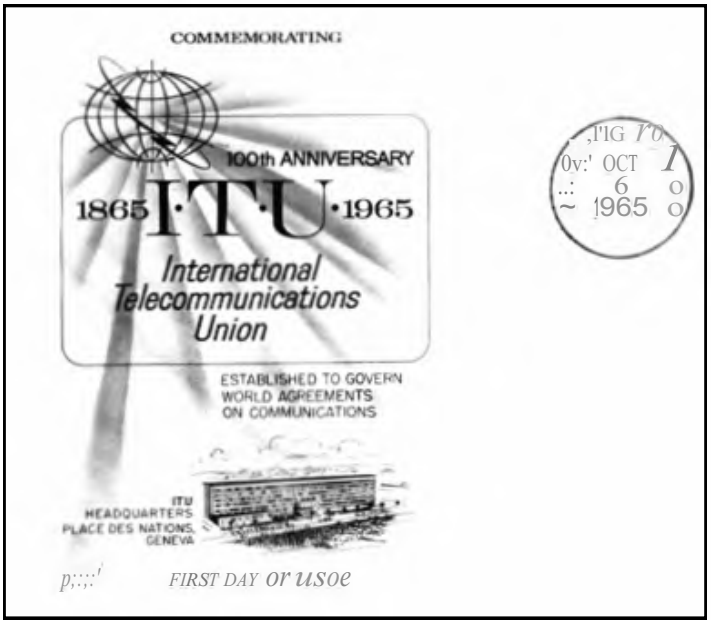
Meeting Location

We will all meet at the Cha Gio restaurant, not at the hotel. Cha Gio is at 132 10th Street NE, Atlanta, GA 30309 (404-885-9387). From the hotel (188 14th Street NE), facing south, cross 14th Street, walk east a short block to Juniper Street, walk south on Juniper to 10th Street. Turn right (west) to see the restaurant. Total distance is about 0.5 miles (0.8 km).

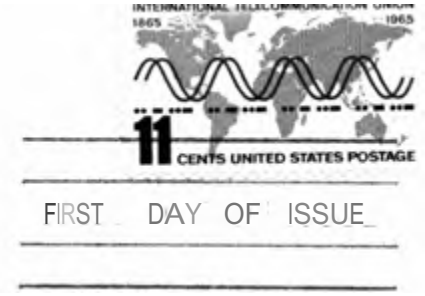
These directions and the map currently are posted to the Mercurians' website: www.mercurians.org

Please indicate your attendance at the meeting when you register with SHOT.

An emergency telephone number—240-988-9775—will be available the morning of the meeting **only** for help in finding the restaurant or other questions regarding the meeting, the Mercurians SIG, or *Antenna*.



International Telecommuncations Union
Commemorative Stamp
October 6, 1965



Negotiating Technology and Post-Apartheid Media and Telecommunications Policy

Keyan G. Tomaselli

Robert B. Horwitz. ***Communication and Democratic Reform in South Africa***. Communication, Society, and Politics Series. Cambridge and New York: Cambridge University Press, 2001. xx + 409 pp. Bibliography, index. $60.00 (cloth), ISBN 0-521-79166-9.

Horwitz's well-written study locates its analysis of media during and after apartheid within a political economy framework. It explains political changes from apartheid to beyond, the role of the media in these changes, and the struggles within media institutions with regard to shaping that change. The entire communications sector is considered, not just specific industries within it. This integration of broadcasting and telecommunications is a strength, rather than a weakness, as argued in another review (Alozie, 2003). My reasons for asserting this are two-fold: first, the majority of people in South Africa were, until the 1990s, deprived of access to basic telecommunication services, such as the telephone. Second, telecommunications was simply not on the radar of economists or communication scholars writing on the early post-apartheid transition.

These studies tended to have several failings. Firstly, they over-emphasized the infrastructural needs of non-information modes of production. That is, they debated methods of restructuring largely obsolete Fordist modes of production, rather than also considering ways of fundamentally restructuring in the direction of post-Fordist relations. Left-wing debate on broadcasting, for example, was concerned primarily with capturing "modernist" broadcasting rather than with also considering the possibilities of the latest developments in telecommunications, satellites, digital media etc., and how these could shape a post-Fordist economy after the 1994 election. Though South Africa had a rudimentary post-Fordist infrastructure in the early 1990s, few policy makers seemed to appreciate then the importance of this grounding for competition in a fast globalizing information-led world. The Independent Broadcasting Authority Act of 1993, for example, failed to take satellite technology into account. The Act had to be updated later to deal with the arrival of new technologies following the launch of the PAS4 satellite in 1996. Finally, these studies over-emphasized modernist technological solutions at the expense of leap-frogging South Africa into sectors of the emerging global information infrastructure, which effectively could have doomed the economy into a regressive and backward slide (Collins, et al., 1992). (Fortunately, this did not occur.)

These failings were quite evident in a then-prominent publication, *Transforming the Economy: Policy Options for South Africa* (Howe and Le Roux, 1992), in which the term "telecommunications" was mentioned only twice, while communications, media, and information featured not at all. Studies by most economists simply ignored the work of communication scholars (cf. Marchant, 1988), and even some economists (e.g., Kaplan, 1992). What characterized the South African economy then, as now, was its curious position of duality through which South Africa had the appearance of a partially underdeveloped Third World society. The South African economy was, however, simultaneously integrated into the global financial capital centers and the international information economy. For example, under apartheid, blacks were deprived of even the most basic information and telecommunication services. Telecommunications, radio, and TV, except for the M-Net pay station introduced in 1986, were a state monopoly used to entrench apartheid, both discursively and geographically. Where even the most remote of white farmers had telephones, none of the surrounding communities of farm workers that supported such enterprises had access to such facilities. Today, the country ranks very high in the use of the Internet, yet those with access number only 1.3 million out of a total population of 40 million plus. Only 1.2 million South Africans use credit cards, a mere 300,000 trade on the stock exchange, and only 600,000 have earned university degrees (Moerdyk, 2003).

More pertinently perhaps, South Africa is a fully developed country with a deeply discriminating historical constitution. What underpinned all policy work undertaken in the 1990s and beyond was how to eliminate and re-balance this discrimination. One of the more creative policies to emerge from government in 2003, for example, was to persuade the three cell phone companies to pledge 4 million free SIM cards to communities in currently unserviced remote areas. In return they would gain access to the 1.8 and 2.4 GHz 3G spectra. The companies will supply 250,000 free phones and numbers to emergency services for a five-year period, providing Internet and phone links including computers at school. This will add to the 14 million existing SIM card users (*Natal Witness*, 30 May 2003:2). The very high penetration of cell phones is an indication of the poor spread of, and inadequate access to, relatively expensive fixed line services in rural areas.

In the light of the relative dearth of debate on the role of telecommunications in the economy, during

Negotiating Technology and Post-Apartheid Media and Telecommunications Policy (continued)

the economic transition, and in political transformation, Horwitz infuses a rigorous political economy of communication into his work on telecommunications. He simultaneously links his discussion of telecoms to a study of communication and media, providing an integrated framework for analysis of the sector as a whole.

Contesting Race, Restoring Class

Horwitz eschews the usual United States race-based analysis which tends to exclude politics, economics, and social formation and structure. Moreover, he tries to understand the South African debates on the relationship between race and class in terms of overcoming the racial capitalism of the 1980s that carried through into the 1990s. In fact, Horwitz's analysis reflects the dominant, ascendant, internal South African left-wing structural explanation of the period, one that did not always sit well with the African National Congress (ANC) in exile. The ANC had tried to mobilize international opprobrium against apartheid precisely in terms of the dominant Western liberal myth of apartheid as a race -based struggle, rather than one more fundamentally based on class. Historical materialist analysis, which enables Horwitz's own explanations, played up the role of capital in oppression. Unlike so many of his U.S. colleagues, he does not reduce the terrain to beguiling and simplistic sound bytes about racial conflict that typified the way the international media made sense of the struggle during apartheid.

The Book's Narrative

Discussion of the shift from Prime Minister John Vorster's dogmatic apartheid of the 1970s to the initiation of race/class reform under the militarist P. W. Botha after 1979 serves as background to the fractures that were unleashed in the South African political economy in the 1980s. During this period, the alternative press and internal opponents of apartheid inserted themselves into the mainstream media landscape. These movements later cohered into the United Democratic Front (UDM) and the Mass Democratic Movement (MDM), from which Horwitz draws the bulk of his academic, activist, and individual sources. Chapters 4, 5, and 6 deal in considerable detail with the complex political processes of reform in broadcasting, telecommunications, the government information service, and state responses to growing resistance. The shift to a "market" economy as a prime political strategy by the apartheid government of the late 1980s—a dynamic that continued into the 1990s and beyond under ANC leadership—formed a key set of debates that Horwitz discusses in detail. The last chapter deals with the emergent project in black economic empowerment. By late 1996, black-dominated union pension capital had bought into, and had taken over, one of the two major English-language press groups, in what was then the largest cash deal in South African history (cf. Tomaselli, 2000).

Horwitz's accessible, explanatory, and most importantly to anti-apartheid activist South Africans, recognizable history of apartheid and the media is written in an insightful way which can be understood by both the novice and advanced student of South African politics, history, and media. Further detail is provided in many copious footnotes.

Earlier Media History

Overarching studies of the South African media during and after apartheid are rare. Previous books have mainly concentrated on "the press," "broadcasting," "telecommunications," and so on, without much attempt to bring these three sectors into a single conceptual framework or cross-sector explanation. Apart from Dave Kaplan's early analyses, telecommunications studies was certainly the poor cousin of both economics and communication studies, while the social impacts of telecommunications itself was most likely studied in electronic engineering departments. Horwitz's work in this book and in the South African journal, *Communicatio*, helped to stimulate more systematic critical analysis of this latter sector in South African communication studies (cf. also *Critical Arts* 1992, edited by Richard Collins).

Four books on which Horwitz relies quite heavily for his historical analysis are the James Currey/ Anthropos/Lake View Press series, "Studies on the South African Media," which deal with press, broadcasting, the alternative press during apartheid, and media policy debates of the 1990s (Tomaselli, et al., 1987; Tomaselli, et al., 1989; Tomaselli and Louw, 1991; Louw, 1993). Horwitz's own political economy analysis fits well with these more detailed and genre-specific analyses. He updates these earlier political economy histories and threads their narratives into the 1990s, inserting into them the post-1990s debates around issues of regulation, deregulation, liberalization, and privatization, as they were occurring internationally at the time. To some extent, then, Horwitz's study not only updates this earlier work, but also does so in a more inclusive holistic manner, although his invocation of media theory is much more muted. He also adds an analytical layer on telecommunications, not dealt with in any the South African series, though telecommunications questions are developed in a Southern African context by Heuva, et al. (2003) and Dunn (2001).

The conditions immediately after the unbanning

Negotiating Technology and Post-Apartheid Media and Telecommunications Policy (continued)

of the liberation movements in February 1990 provided Horwitz the opportunity for a kind of "before-and-after" study, though the "after" in this case refers mainly to the immediate post-apartheid transition between 1990 and about 1996. The impulses for change continued well into the new millennium. Some of the shifts in attitude by sections of the ANC, the state, and the government throw into relief Horwitz's occasionally idealist assumptions about the supposedly benign nature of ANC policy relating to the emergent public sphere. This sphere has been subjected increasingly to hardening government attitudes towards the media and the South African Broadcasting Corporation (SABC) in particular. One of the problems of being part of the processes one is writing about is that one sometimes takes for granted surface appearances from intimate sources about what is actually happening, rather than also being alert to what could happen and to what does, in fact, happen.

For a work that is as detailed and as descriptive as is this book, it is occasionally remiss in not providing additional readings on particular moments and organizations, the most glaring case being that of the Bureau for Information in the late 1980s. The two pages offered here are unaware of the extensive critical communication research that was done on this institution, and it therefore underplays the Bureau's importance in managing (rather than controlling) news during the dying days of apartheid.

Subjectivity: Working from the Inside

Horwitz does not really analyze his position as an American researcher working on telecommunication issues in South Africa, a position that uniquely saw him being invited to serve on the state's telecommunications policy planning committee. What he has related, more often than not, is local, constituency-specific nuance, local difference and the texture of mainly left-wing (UDF-/MDM-centered) local struggles, as interpreted by individual informants. By failing to systematically engage and analyze the conventional, conservative, or indeed, right-wing literature on the transition, Horwitz favors an albeit determining conceptual trajectory, while backgrounding the sometimes extraordinary struggles being conducted by constituencies not of the left, but which were responding to this analysis. This is not to say that Horwitz is unaware of them. Horwitz agrees that "it makes sense and is a matter of intellectual honesty for a scholar to problematize his/her position, especially when he is an outsider. This is what I had hoped to do in the Preface. — perhaps not enough ... to do much more risks making the elucidation of one's subject position too much of a focus of the study." (email, 10 May 2003)

But some description of the struggles going on inside the very media institutions after 1999 on which Horwitz comments from his left-wing position might have added a dimension as intriguing as those that he has uncovered. This certainly would have tempered his sporadic naivety on the left's early and often regressive slide into demands for an uncritical "developmental media" state control and a creeping authoritarianism which makes itself more evident every day (cf. Teer-Tomaselli, 1993). Struggle is never over; democracy is never complete; policy is always an instrument of the state; and the way these play out in South Africa is no different from anywhere else. On the issue of idealism, Horwitz responded:

"As for my idealism, well, I plead both guilty and innocent. Unlike many of the Leftish accounts of the South African transition, most of which I find fall into a harshly critical "betrayal of the revolution" mode, and unlike the liberal accounts of the transition that uncritically celebrate the transition and the pragmatism of the ANC, I tried to strike a tone of critical appreciation.

A lot of my criticism focused around the suspicious moves of the ANC leadership, what with its attempt to continue a heavy hand over the SABC, its early effort to retain the South African Communication Service, its selling out of the participatory consultative processes after 1996, its attacks on the print press so as to facilitate a "developmental" media, its adoption of neo-liberal macro-economic policy. If these criticisms didn't get through in your reading, I'm rather perplexed." (email, 10 May 2003)

Postscript

I wrote much of the above early this year when most of the naive idealism that we of the UDF/MDM all had in the mid-1990s has all but dissipated. Political opportunism, the hard realities of corrupt and legitimate political posturing, and increasingly alarming attempts by the President's office to interfere with the SABC, have become the order of the day. The political shenanigans around the awarding of the third cellular license two years ago possibly marked the end of the wide and very open democratic window in which, and about which, Horwitz was writing. Perhaps this hardening of positions colored my reading of aspects of his study—perhaps it's my own disappointment at what normalization actually means, which was encoded in my original review (H-SAfrica 2003), rather than a critique of Horwitz's own idealism.

James Curran once told me that "democracy is merely the most efficient means of limiting corruption—nothing more, nothing less." This comment was quite an eye-opener. Also, the intense battles that I and my colleagues here at the University of Natal waged within the left in the 1990s to shape the debates towards a democ-

Negotiating Technology and Post-Apartheid Media and Telecommunications Policy (continued)

ratic pluralism left us very bruised. The careerism and political opportunism that now dominate sections of the ANC started in this early post-apartheid politically fractured moment, though it's quite clear that many of the returning exiles—as well as some internal activists—had already planned their grand and grubby personalized political and financial empires on the back of the broader democratic struggle. While many fortunately remain true to their democratic principles, many don't. I've learned that this is "normal" politics. Democratization is not the same as democracy. And democracy is never won. It has to be continuously struggled for.

In sum, *Communication, Reform and Democratization in Southern Africa* is exceptionally well written and offers a highly engaging dramatic narrative, one in which the author briefly locates his own important contribution to the post-apartheid transition. Alozie (2003:225) laments the book's use of "arcane academic language that might force nonacademicians to come to frequent halts," that this difficult discourse might alienate policy-makers. What was fascinating about the emergent policy discourses of the 1990s, however, was that the language used by Horwitz is similar to that which was popular within the very policy-making bodies on which Horwitz himself served. If nothing else, this in itself reveals the discursive fast-tracking that occurred around issues of telecommunication in comparison to the paucity of discussion on the topic just a decade prior to publication of his book. How can one write about the intricacies of political dynamics without mobilizing the language and concepts by those inside those processes? This point reminded me of media reception to my own Inaugural lecture (1986). Ignored by the corporate Durban press, and ridiculed by a Johannesburg financial magazine, it was, however, serialized by a Pietermaritzburg alternative newspaper read mainly by poorly educated black township residents. My "arcane" language did not seem to bother the paper's editor or these readers. The main problem with Horwitz's book is the price of $60, which puts it out of the reach of most individual South Africans. Course adoption at this price is also out of the question.

Horwitz's book is the best longitudinal critical overview available on the South African media in general. It is by far the most compelling analysis written by an international scholar on the topic, and it pays its dues to prior published local research, much of which underpins his historical narrative. It is as much a book on South African communications as it is about the transition of the communications sector in relation to broader political trajectories.

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"Sorry, Wrong Numbers: The EEOC and Equal Employment Opportunity at AT&T"

Thomas C. Jepsen

Lois Kathryn Herr. ***Women, Power, and AT&T: Winning Rights in the Workplace***. Boston: Northeastern University Press, 2003. xvii + 200 pp. Illustrations, tables, preface, notes, index. $47.50 (cloth), ISBN 1-55553-537-2; $18.95 (paper), ISBN 1-55553-536-4.

One of the most enduring and often-quoted legends of the telephone industry concerns the early employment of women as telephone operators. When telephone switchboards were introduced in the late 1870s, young boys were first employed to connect subscribers to one another. However, due to their boisterous behavior, inability to submit to discipline, and rudeness to customers, they were quickly replaced by women, who were believed to be, in the words of one commentator, "all the things that were described by the vanished word 'ladylike'—calm, gracious, diffident, never profane."[1]

Thus the occupation of telephone operator became a gendered occupation almost at its inception. The Bell System could argue ninety years later that the essential requirements for this position—quality of service and the "voice with a smile"—were in the exclusive possession of the female gender (p. 36), and therefore being female was a formal part of the Bona Fide Occupational Qualification, or BFOQ, for the occupation of telephone operator. But the same logic that made operating a females-only occupation also could be used to exclude women from other positions within the company. The company could claim that craft positions, such as "switchman," could be filled only by males, since the BFOQ for these positions included heavy lifting, irregular working hours, and driving alone at night.

This practice of classifying jobs by gender raised few eyebrows during the early years of the Bell System as it grew to become a virtual monopoly under the regulation of the U.S. government. Few questioned the employment practices of the American Telephone and Telegraph Company as long as it fulfilled its promise of universal service to all in exchange for Federal Communications Commission regulation of its rates. By the 1960s, however, AT&T's employment practices had come to be viewed as anachronistic by many, both inside and outside the giant company. Yet AT&T's top management reacted with surprise and anger when the Equal Employment Opportunity Commission charged it with discrimination based on gender in a series of actions in the early 1970s. After all, had AT&T not been a pioneer in providing employment to women? And had it not provided jobs for hundreds of thousands of women over nearly a century? Lois Herr's book perceptively chronicles the origins of this cognitive dissonance, and describes the strategy and tactics used by the EEOC, the National Organization of Women (NOW), and the women employees of AT&T to bring about change in the employment practices and corporate culture of the telecommunications giant.

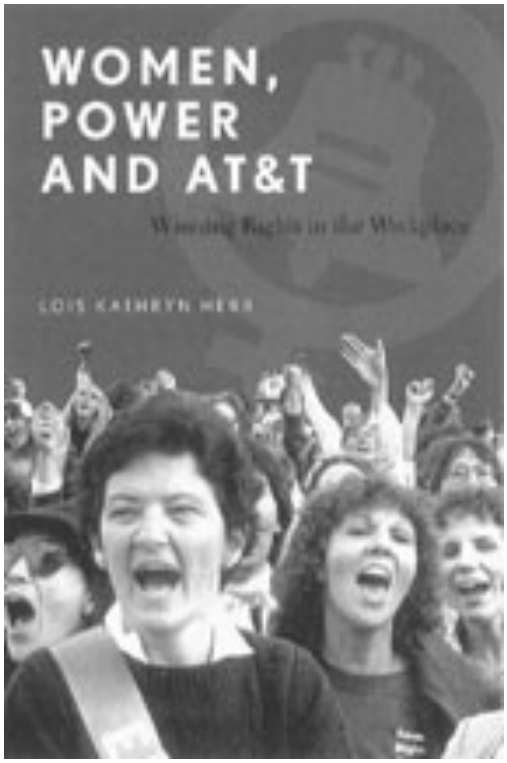
The EEOC had been reviewing the telephone company's employment policies for several years when AT&T requested the FCC to grant it a rate increase in November 1970. The EEOC, seeing an opportunity to challenge AT&T's hiring practices, intervened in the rate request, charging that AT&T was using the rate increase to compensate for inefficiencies created by its discriminatory practices. The FCC began an investigation into the charges, and the EEOC, newly given enforcement powers, held hearings on AT&T's employment practices. The result was a series of consent decrees, enacted between 1973 and 1979, which required AT&T to develop an affirmative action program, develop an upgrade and transfer program, and provide back pay to those denied promotions in the past based on gender.

Herr tells her story not as an academic historian, but as an insider; she worked as a technical editor and manager at AT&T for many years, and thus provides a unique perspective on a corporate culture that is often difficult for outsiders to understand, with its inward focus and addiction to acronyms. (In true telecom style, Herr provides a list of acronyms and their meanings at the beginning of the book.) Her personal involvement in the struggle for equal rights came about as a result of obstacles she faced in her own career: why were women forbidden to wear pants to work? And why, when she requested a transfer to a technical position, was she encouraged to become a typing pool supervisor instead?

Herr's emerging consciousness of the "glass ceiling" that she and her fellow female employees faced as they attempted to advance their careers led to her involvement with NOW, founded in 1966 by Betty Friedan and others, as well as a personal commitment to effect change from within the corporation. She effectively describes the duality of being both a loyal employee and a corporate activist, roles that sometimes were complementary and sometimes oppositional. Herr avoids demonizing either corporate executives or radical feminists, and acknowledges the complex interplay of interests that led to the ultimate settlements. In particular, she points out the contributions of progressive AT&T executives like William Mercer, Vice President of Personnel, who had worked for the elimination of gender-based discrimination well before the EEOC charges were filed.

"Sorry, Wrong Numbers: The EEOC and Equal Employment Opportunity at AT&T" (continued)

Women, Power, and AT&T is particularly effective in describing the complex interworkings of multiple organizations, each with a separate agenda, and the strategies each organization used to achieve its goals. Herr describes how NOW, under the leadership of Aileen Hernandez, Wilma Scott Heide, and Sally Hacker, pressured the EEOC to focus on women's rights at AT&T as well as those of racial minorities. The EEOC, scarcely two years older than NOW and with much of its legal staff fresh out of law school, sought to establish its legitimacy as an enforcement agency while fighting turf battles with its rivals at the Justice Department and the Government Services Administration. AT&T tried to take advantage of this bureaucratic infighting by submitting its affirmative action plan to the GSA, rather than the EEOC. This attempted end play was derailed when the Justice Department took over jurisdiction in the case in 1972. The Communications Workers of America, the union which represented many of the telephone operators, refused to participate in the discussions leading up to the settlement, fearing that the settlement might jeopardize the union's seniority rules.[2] The FCC, in an uncharacteristically activist mode of operation, expanded its regulatory role to include review of employment practices as well as rate regulation.



Much has transpired in the thirty years since the first consent decree was enacted in 1973, and the events that Herr describes have been overshadowed to a degree by the Watergate scandal in 1974 and the breakup of the Bell System in 1984. In a postscript, Herr provides an assessment of the long-term impact of the settlement. She acknowledges that AT&T cooperated willingly in executing the new guidelines, noting that "AT&T set about implementing the decree in the same organized, systematic way it implemented any policy" (p. 155). Post-settlement reviews conducted by the EEOC, the GSA, and the Departments of Labor and Justice found sharp increases in the number of women in craft and senior managerial positions. Other corporations followed AT&T's lead in eliminating barriers to entry and advancement for women employees. Today, AT&T can rightfully claim to have advanced the careers of many top women executives, including CEO Patricia Russo of its equipment spin-off, Lucent Technologies, and Carly Fiorina, now CEO of Hewlett-Packard. And by opening its craft positions to women as well as men, AT&T made it possible for Venus Green not only to exchange a clerical job for a position as a switchman in 1973, but to start on a career path that led to her becoming a historian and author of a history of race and employment in the Bell System.[3]

Herr's book uses a balanced and thoughtful approach that brings dust-jacket kudos from AT&T executives as well as members of the women's movement. William M. Ellinghaus, former president of AT&T, writes that "Ms. Herr ... helped us at AT&T to see more clearly the value and potential of the women in our companies and to take the steps necessary to realize this potential" (quote from dust-jacket). Her experience as a former technical editor is visible as she describes the painstaking preparation of enormous amounts of documentation submitted by each side. And her use of photographs to illustrate the "culture clash" between the suit-and-tie AT&T executives and the long-haired, tieless EEOC lawyers is wonderfully evocative of an era when dress and hair length were indicators of one's political and social beliefs. This book is highly recommended for anyone with an interest in telecommunications history and the history of the women's movement in the 1970s.

References.

[1]. John Brooks, *Telephone: The First Hundred Years* (New York: Harper & Row, 1976), 66.

[2]. For an excellent history of the telephone operators' involvement with the labor movement, see Stephen H. Norwood, *Labor's Flaming Youth: Telephone Operators and Worker Militancy, 1878-1923* (Urbana: University of Illinois Press, 1990).

[3]. Venus Green, *Race on the Line: Gender, Labor, and Technology in the Bell System, 1880-1980* (Durham: Duke University Press, 2001).

Telegraph Messenger Boys: Labor, Technology, and Geography, 1850-1950

Carrie Sanders

Gregory J. Downey. ***Telegraph Messenger Boys: Labor, Technology, and Geography, 1850-1950***. New York: Routledge, 2002. 240 pages.

The *Telegraph Messenger Boys: Labor, Technology, and Geography 1850-1950*, is a fascinating analysis of the intermingling of the social and technological. Downey portrays the messenger boy as a part of the telegraphic product—the telegram, "not only advertising it to the world, but carrying with it an aura of importance and urgency that kept it distinct from the products of the competing information networks, the slow letter and the hurried telephone call" (p. 192). Thereby, Downey argues that the telegraph industry was not a "purely scientific" technology, but instead a technology of negotiated labor where the messenger performed different duties at different times.

Downey takes the reader through a journey that uncovers the "black box"[1] of the telegram highlighting the social relations and labor embedded in its functioning and success. This analysis demonstrates that a product is only successful when it is accepted by and incorporated into peoples' everyday activities. For example, the telegraph industry, although antiquated, survived long after new communication technology had been created because of the reputation that the telegram, and ultimately the messenger, held for the consumer. Therefore, the development of the telegram was a collective and continual process that required the telegraph companies to redefine the use, purpose, and image of the telegram as time passed and new communication technology, such as the telephone, was created.[2]

Downey illustrates this collective and negotiated process through an analysis of the messenger boy. The telegraph messengers, and particularly their identity, were entrenched in the survival of Western Union and the telegraph industry. Downey's analysis illustrates how the messenger boy was implicated in the shaping of occupational identities, the development of information products, the evolution of technological systems, and the production of technological spaces (p. 13). The historical account of the messenger worker illuminates the multiple skills (such as mathematics, geography, and problem solving) demanded in telegraph messenger labor, while further illustrating how their image, work, and leisure activities were controlled by the industry itself.

Downey creates an image of the messenger as a labor that involves multiple skills, blurred gender identities, and a downgraded reputation (for example, school drop-out, unskilled, "slow, stupid, and even criminal") by the rest of society (p. 162). This historical analysis shows how the messenger boy was a "boundary worker" who performed many duties inside the telegraph industry (including delivering telegrams, operating machinery, general deliveries, and that advertising "relied on messengers' image and tales of messenger heroics"), as well as outside the industry by becoming a key worker within the communications internetwork (i.e., telephone, post office, and telegraph industry) (p. 93).

Therefore, the telegraph messenger was an internetwork boundary-worker who was "crucial in connecting this analog internetwork; they enabled the emergent pattern of multimodal message delivery and dealt with all the problems that thwarted that delivery" (p. 146). This image enables one to see the messenger boy as multi-skilled and the key player in the success of the telegraph industry. However, because these skills were difficult for the customers to see, many people did not understand the complexity involved in transforming information from a virtual form into a physical telegram. Thus, Downey provides a descriptive account of how messenger work was "downgraded" by the industry (through poor wages and lack of union recognition) and the competition (for example, "this Electric Messenger never idles—never loses or misdelivers messages—never meets with injury"). This account reveals how the identity of the messenger boy was tightly woven into the telegram itself (p. 87).[3]

By focusing on the telegraph messenger, Downey demonstrates how Western Union attempted to govern their employees through their training, uniforms, labor hours, wages, and vocational education—all of which helped Western Union to control the behavior and, inevitably, the image of their messenger boys. Uniforms served two purposes: 1) they acted as a form of advertisement for the telegraph industry, while 2) simultaneously instilling a respectable and important image for the messenger boy. As uniforms became mandatory, new spaces were being created and designated for messengers boys behind the scenes to ensure that customers would not see them sitting around. The telegraph industry employed these tactics because a customer not only purchased the technology, they also "purchased the personal care the messenger boy would take with it," meaning that the messenger had to appear respectable and trustworthy (p. 96). This is just one example of how the messenger boy was pivotal in the production of the telegram, technological spaces, and the evolution of technological systems.

Telegraph Messenger Boys: Labor, Technology, and Geography, 1850-1950 (continued)

Downey uncovers how the messenger boys became the focus of child labor laws, the development of continuation and vocational schooling, as well as the central players for the production of information from its virtual form to its physical form. This book covers fascinating and important theories of technology and labor, while further highlighting the social construction of both space and time. Although this is an intriguing historical and sociological account, there are two aspects of this research that I believe remove the authenticity of Downey's claims: his description of data and his gender analysis.

My first critique pertains to the methodological approach taken. Downey states that the study "strives to let the messengers' own voices be heard," through the analysis of hiring records, work rules, union contracts, management minutes, employee interviews, advertisements, popular advertisements, and dime novels (p. 6). The problem arises when Downey neglects to explain how he analyzed the data. Many people can take the same data and look at it from a different perspective and come up with a different analysis. The arguments presented throughout the text would be stronger had Downey explained how he reached them. [4]

Of more concern to me was the use and conception of gender, gender identity, and masculine/feminine ideals. Downey spends most of his time critiquing the telegraph messenger boy as occupying a "blurry gender position which enabled them to perform both masculine and feminine tasks in both the masculine and the feminine spaces of the city," (p. 124) however he never defines gender and masculine/feminine tasks. Throughout the book I felt that gender referred to the biological sex of the messenger. Gender, however, is more than sex; it incorporates the socially constructed aspects of men and women (Marshall, 1994/1998). Downey defined neither gender nor masculinity and femininity, even though he centered most of his analysis, as well as an entire chapter, around these conceptions. Downey explains that the blurry gender identities of the messenger boys enabled them to be successful boundary workers because:

"Masculine gender definitions of duties and working-class hopes of future careers, based on the idea that a working boy would soon grow into a working man, were key to creating a messenger force that could function effectively in the public business sphere of the city. But more feminized gender definitions, linked not only to class but to age and motherhood, were key to extending messenger work into the woman's domestic sphere at the same time. . . . Age and class were key in maintaining this gender position, because the mythical future opportunities of the messenger were intended to compensate for his present subordinate status (p. 124)."

This is an intriguing explanation for the predominantly male messenger force, but it is difficult to fully accept without providing the definition of gender and, more specifically, what it meant to be masculine and feminine.

Had Downey placed more time and consideration into explaining his process and definitions I believe his argument would have been more valuable. Nevertheless, *Telegraph Messenger Boys*, is a fascinating journey through the mixing of technology and labor. The research provides a compelling tale of messenger heroics and how the messenger worker was the secret tool behind the success of the telegram. It enlightens the readers by demonstrating how technology is composed of social relations and continual negotiations[5] that worked to create its own space and time through the aid of the young messenger boy.

Notes

[1] Black box, as Bruno Latour, *Science In Action* (Cambridge: Harvard University Press, 1987), 304, explains is "an expression from the sociology of science that refers to the way a scientific and technical work is made invisible by its own success. . . . Thus, paradoxically, the more science and technology succeed, the more opaque and obscure they become."

[2] For a better understanding of the collective process of fact and object building see Latour, *Science In Action,* op. cit.; Wiebe Bijker, *Of Bicycles, Bakelites, And Bulbs: Toward A Theory Of Sociotechnical Change* (Cambridge: The MIT Press, 1995); and Andrew Pickering, *The Mangle Of Practice: Time Agency & Science* (Chicago: University of Chicago Press, 1995). Each of these texts demonstrates how objects (such as bicycles, air pumps, and scientific facts) are the result of a continual process in which different people at different times engage and shape the objects or facts. They further illustrate how the success of an object is the result of different social groups incorporating the object into their activities, therefore "it is not only collectively transmitted from one actor to the next, it is collectively composed by actors" (Latour, *Science In Action,* 104).

Telegraph Messenger Boys: Labor, Technology, and Geography, 1850-1950 (continued)

Notes (continued)

[3] From this example of downgrading messenger labor we can begin to see the similarity between this form of labor and the labor of telephone operators, dispatchers, and clerical workers. For another description of downgraded labor see Marilee Reimer, "Downgrading Clerical Work in a Textually Mediated Labor Process," 193-208 in *Knowledge, Experience, and Ruling Relations*. (Toronto: University of Toronto Press, 1995), who explains that "clerical work is documented in such a way that the specialized knowledge and contributions of women in advanced clerical positions are drawn upon while not being made accountable as performance in a position" (p. 207). Reimer's research on downgraded clerical work has many similarities to Downey's depiction of the telegraph messenger.

[4] N. Mauthner and A. Doucet, "Reflections on a Voice-centered Relational Method: Analyzing Maternal and Domestic Voices," 119-145 in *Feminist Dilemmas in Qualitative Research* (London: Sage Publications, 1998), have done excellent work regarding the importance of data analysis. They explain how some researchers are nervous about explaining their data analysis because each person interprets methods differently, and they may be concerned that they did it improperly. They explain how "there can be no 'pure,' 'real,' or 'authentic' experiences or voices of respondents because of the complex set of relationships between the respondents' experiences, voices, and narratives, and the researchers' interpretation and representation of these experiences/ voices/narratives" (p. 140).

[5] Marc Berg, *Rationalizing Medical Work: Decision-Support Techniques and Medical Practices* (Cambridge: The MIT Press, 1997) also has completed fascinating research on medical technologies and their negotiated uses. His analysis demonstrates how pieces of technology can reinforce organizational hierarchies as well as create negotiated labor between the employees and the technologies uses.

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Bike Messenger, New York City, 1898

AN ELEMENTARY TALE.

Two hydrogen atoms walk into a bar.
One says, "I've lost my electron."
The other says, "Are you sure?"
The first replies, "Yes, I'm positive."

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Military Communications in the 1960s: Wiring up the Air Force Eastern Test Range

Ronald R. Thomas

In the 1960s, the U. S. Air Force Eastern Test Range extended from Cape Canaveral to Ascension Island in the South Atlantic Ocean. Cape Canaveral supported military missile test launches and the U.S. space program—including the Mercury, Gemini, and Apollo launches.

Cape Canaveral and the various downrange tracking sites required extensive communications capabilities. The Air Force's 2862 Ground Electronics Engineering Installation Agency (GEEIA) Squadron was responsible for the installation and depot-level maintenance of that communications equipment. It was a major challenge that involved hundreds of GEEIA men who "rode the range."

The Eastern Test Range

Cape Canaveral was the starting point for the Eastern Test Range. The Cape consisted of approximately 15,000 acres of scrub grass and sand that jutted out into the Atlantic Ocean. There were dozens of launch complexes, assembly hangers, and offices spread out over the cape, in addition to a mission control building, press sites, and other facilities. Cape Canaveral had its own fire department and sewage treatment plant. In many ways, it was a small city.

Even though no one actually lived there, approximately 10,000 military and civilian employees commuted daily to and from Cape Canaveral. Most people worked during the day, with a small number of support personnel on duty at night. However, work hours had to be staggered to avoid morning and evening traffic jams.

Tracking the missiles launched from Cape Canaveral were a variety of facilities on a number of islands that included Grand Bahama, Antigua, and Ascension, located 5,000 miles downrange in the South Atlantic Ocean. In addition, several ships stationed in the Atlantic Ocean served as floating tracking sites. During a missile launch, all of those tracking sites had to be able to communicate with each other and with Cape Canaveral in real time.

The 2862nd GEEIA Squadron

The 2862nd GEEIA Squadron's headquarters was on Patrick Air Force Base, located about 15 miles south of Cape Canaveral. The squadron's operations office, however, was on the cape, where most of the squadron personnel reported for duty each day. The squadron also was part of the worldwide GEEIA organization headquartered in Rome, New York. The squadron consisted of several hundred military communications personnel and a small number of civilian employees assigned to three major areas: outside plant, inside plant, and electronics.

Outside plant personnel were involved in wire and cable projects, tower and antenna construction, and other related work. Inside plant personnel worked on telephone systems, missile communications equipment, public address systems, and other similar equipment. Electronics personnel worked on radio transmitting and receiving equipment, closed circuit television, and other types of electronic equipment.

The squadron commander was a lieutenant colonel to whom a number of captains and lieutenants reported. They were communications officers directly responsible for the various squadron activities. In addition, experienced senior noncommissioned officers (NCOs) directly supervised the junior enlisted communications personnel.

The Mission

The mission of the 2862nd GEEIA Squadron was to provide the eyes and ears for the Eastern Test Range. It was a major undertaking that involved installing and maintaining a wide range of communications equipment, some of which was unique to the Eastern Test Range.

Voice communications were critical to all of the activities on the Range. On the Cape, communications traveled through approximately 1,000 miles of lead-covered buried cables that contained hundreds and sometimes several thousand pairs of copper wires.

Cables were interconnected by splicing them together (see illustration on next page). Splicing cables required soldering together, one at a time, the individual wires in one cable to the wires in the other cable. After all of the hundreds or thousands of wires had been soldered together, a lead splice case was wrapped around the splice point. Hot lead then was poured over the seams of the splice case to seal it and to prevent moisture from entering. Obviously, great care was required in cable splicing work.

In addition to voice communications, those cables carried data communications. However, for closed circuit video communications, in order to support the bandwidth demands of video communications, special video cables were installed.

Because Cape Canaveral was at sea level, water could put those buried cables at risk. Therefore, they were pressurized with an inert gas to keep water from entering them.

Cape Canaveral had its own electromechanical telephone system that required frequent depot-level maintenance from GEEIA personnel, meaning the equipment had to be sent to a special shop for repairs.

Military Communications in the 1960s: Wiring up the Air Force Eastern Test Range (continued)


Splicing buried cables

The system underwent ongoing expansion to support the needs of the personnel on the Cape.

Each launch complex had an extensive complement of missile communication equipment that provided multi-channel voice communications capability to the launch pad, the nearby blockhouse, and the downrange sites. Often, the heat from a missile launch would damage the equipment on a launch pad, and GEEIA personnel had to perform maintenance work and install new equipment, if needed.

Cape Canaveral's launch complexes, assembly hangers, and other buildings made wide use of public address systems. These systems served a critical purpose by alerting personnel about launch and normal work activities. Because of the size of the buildings, making those systems work effectively was a challenging task for the GEEIA personnel.

At each launch complex, closed circuit television cameras provided a visual view of the missile to personnel in the blockhouse and mission control. That information was extremely important during a launch.

High frequency radio equipment provided communications between Cape Canaveral and the downrange tracking sites. The largest of these sites was on Ascension Island, and men from the 2862nd GEEIA Squadron spent a great deal of time on temporary duty there.

Ascension is a barren, 35-square-mile island created when a volcano blew up sometime in the distant past. American astronauts went there for training before going to the moon, because scientists thought the moon physically would resemble Ascension Island.

Traveling to Ascension required a three-day, 5,000-mile trip in an Air Force C-130 cargo airplane, with intermediate overnight stops in Antigua and Recife (Brazil). Passengers sat in web seats that ran down each side of the plane's interior, while the middle of the plane held cargo. The seats were uncomfortable; the plane was noisy; and there was very little light. Mainly, passengers just sat there, stared at the cargo, and waited for the trip to end.

One of major tasks of the GEEIA men on Ascension involved working with the 10, 25, and 50 kilowatt high frequency transmitters, receiving equipment, and associated antennas. In one instance, during the 1960s, the entire transmitter facility had to be relocated to a new building, one transmitter and one antenna at a time.

On Ascension, and the other Range sites, towers had to be erected for the various HF antenna systems, which could be quite large and complex. The work involved heavy construction equipment, and extreme care was needed to avoid the risk of accidents.

Leaving Ascension to return home required another arduous three-day trip in a C-130 cargo plane. However, for the men of the 2862nd GEEIA Squadron, it was all part of "riding the range."

Today

Today, although Cape Canaveral still exists, many of its launch facilities from the 1960s have been abandoned in place—no longer needed and too expensive to remove—and Ascension Island has been opened up to tourists. The GEEIA organization was phased out long ago, and its activities transferred to other Air Force organizations. However, the role that the 2862nd GEEIA Squadron played in wiring up the Air Force Eastern Test Range in the 1960s long will be remembered by those who served in that era.

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Encyclopedia of Military Communications

Spencer Tucker is seeking a general editor/author for an encyclopedia on the history of military communications. It will be part of a series of encyclopedias on the history of military technology and its application to the civilian sector. The encyclopedia is to run a total of 150,000-200,000 words and is to be published by ABC-CLIO of Santa Barbara, California, one of the leading publishers of military history reference works.

The editor's responsibilities are to work out a topic list, line up contributors to write the entries for the encyclopedia, write the introductory chapter tracing the history of military communications and impact on the civilian sector, and write at least some of the entries. He/she will also edit the entire work. In addition to the introductory chapter, there will be a brief chronology that highlights the main events over time. The body of the work consists of entries of varying lengths arranged alphabetically, A-Z. The work is also to have perhaps 50 sidebars, a glossary of terms, and a bibliography.

ABC-CLIO will do the index and take care of illustrations. Compensation is $8,000 for the editor, along with 10 free copies of the work, as well as many gratis copies as needed for contributors. Due date for the completed work is 1 December 2006. Interested parties should contact Spencer Tucker via e-mail at tucker@rockbridge.net

New Reference Guide From Rockefeller Archives

Survey of Sources at the Rockefeller Archive Center for the History of Radio, Film and Television is the latest in the Rockefeller Archive Center's series of cross-collection surveys. Compiled by Michele Hiltzik, Carol Radovich, Ken Rose, and Margaret Drum, this survey focuses on the media technologies new to the 20th century—film, radio, and television—and how they are represented in the Center's collections both as tools to be used for education, propaganda, and business profit, and as the subjects of study toward an understanding of how these new media were received and perceived by their audience and how they functioned within society.

Several of the philanthropies represented in the Center's collections used the new media in educational campaigns. The Rockefeller Foundation used film as part of its public health campaigns in the South and in other countries as early as the 1910s; the American International Association used radio as an educational tool for nutrition programs; both the Rockefeller Foundation and the General Education Board promoted experimental educational uses of both radio and film; and both the Rockefeller Brothers Fund and the John and Mary Markle Foundation actively supported educational television. The same hopes and dreams that people have expressed for computer technologies at the dawn of the 21st century were evident in the hopes people had for the broadcast technologies of the 20th century.

In politics, Nelson A. Rockefeller made use of the media in his campaigns for governor of New York and especially in his campaigns for the Republican presidential nomination. His papers provide interesting documentation of the use of the media at the dawn of the television age.

At the same time that they were promoting its use as an educational tool, the General Education Board and the Rockefeller Foundation also were funding studies of how the media function in societies, beginning with studies of audience response to Orson Welles' radio broadcast of "War of the Worlds" and continuing through studies of wartime propaganda in the 1940s and the creation of the discipline of mass communications studies at various universities.

A number of researchers have published articles, books, and dissertations that draw upon these materials. The literature of which the Rockefeller Archive Center is aware is listed in the "Mass Communications" section of the *Bibliography of Scholarship from the Rockefeller Archive Center*, accessible online from the General Publications section of their website at: http://www.rockefeller.edu/archive.ctr/.

In addition, the Center's website includes an essay by William J. Buxton, "Rockefeller Support for Projects on the Use of Motion Pictures for Educational and Public Purposes, 1935-1954," accessible from the Research Reports Online section of the website: www.rockefelleredu/archive.ctr/racrrol.html.

Recent relevant essays in Rockefeller Archive Center publications also include Buxton's "Emergence of the Rockefeller Foundation's Communications Program in the 1930s" (*Research Reports*, 1996, pp. 3-5); Gisela Cramer's "The Office of Inter-American Affairs and the Latin American Mass Media, 1940-1946" (*Research Reports*, 2001, pp. 14-16, and *Research Reports*, 2002, pp. 14-17); and Darwin Stapleton's "Director's Comment: An Invasion from Mars" (*Newsletter*, 2001, pp. 2, 12), all accessible online.

The *Survey of Sources at the Rockefeller Archive Center for the History of Radio, Film and Television* is the latest cross-collection survey. Past surveys have focused on African-American welfare and education, child studies, China, labor and industrial relations, nursing, psychiatry, and 20th-century Africa. Past surveys are accessible online from the General Publications section of the Center's website. The survey of radio, film, and television sources will be available on-line after November at: http://www.rockefeller.edu/archive.ctr/.

The Rockefeller Archive Center, a division of The Rockefeller University, was established in 1974 to assemble, process, and make available for scholarly research the papers of the Rockefeller family and the records of various philanthropic and educational institutions founded by the family, including The Rockefeller University, the Rockefeller Foundation, and the Rockefeller Brothers Fund.

German Books on Communications History

Reviews of these German-language books on communications history appeared on various H-net lists.

Manfred Rexin, Hrsg. Radio - Reminiszenzen. Erinnerungen an RIAS Berlin. Schriftenreihe der Medienanstalt Berlin-Brandenburg 13. Berlin: Vistas Verlag, 2002. 474 S. Bibliographie. EUR 30, ISBN 3-89158-335-4. <**Radio Reminiscences of RIAS Berlin.**>
Reviewed at: http://www.h-net.msu.edu/reviews/showrev.cgi?path=62071053571609

Bernd Sösemann, Hrsg. Kommunikation und Medien in Preußen vom 16. bis zum 19. Jahrhundert. Beiträge zur Kommunikationsgeschichte 12. Stuttgart: Franz Steiner Verlag, 2002. 474 S. Bibliographie. EUR 58, ISBN 2-515-08129-1. <**Communication and Media in Prussia from the 16th to the 19th Century.**>
Reviewed at: http://www.h-net.msu.edu/reviews/showrev.cgi?path=137741053630826

New Book Releases

Atlantic Communications: The Media in American and German History from the Seventeenth to the Twentieth Century,
Norbert Finzsch and Ursula Lehmkuhl, eds., Berg Publishing Limited (University Press), January 2004. 416 pages. 11 tables and graphs, bibliog, index. $75.00. ISBN: 1859736793.

Edited by Norbert Finzsch, Professor of Anglo-American History and Department Chair, University of Cologne, and Ursula Lehmkuhl, Professor of North American History, John F. Kennedy Institute, Free University of Berlin, *Atlantic Communications* examines the historical development of communications technology and its impact on German-American relations from the seventeenth to the twentieth century. Chronologically organized, the book has five parts, each of which scrutinizes one or two central themes connected to the specific time period and technology.

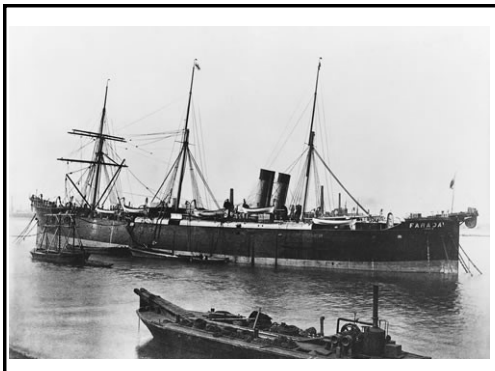
The book starts with "speech" as a dominant medium of the seventeenth and eighteenth centuries, when cultural brokers played a significant role in producing and spreading knowledge about "America." During the nineteenth century, the technological competition between the old and the new world became a driving force for the history of transatlantic relations. This competition, the book argues, developed new dimensions with the invention of the telegraph and the emergence of news agencies. Information became commercialized.

At the turn of the century, the mass production of print media became technologically possible. Print media, daily journals, and especially weekly magazines became the medium of a critical style of journalism. The Muckrakers, representatives of a political and intellectual elite, criticized the social and cultural consequences of technological progress, thereby highlighting the negative effects of modernization. During the 1920s and 1930s, the text argues, radio developed as a new mass medium, the first one to be used widely for political purposes. Josef Goebbels was not the only one to recognize the political possibilities of reaching the people directly via radio—Franklin Roosevelt used the radio as well to transmit his political messages in the form of "fireside chats."

Eventually, according to the book, in the late 1970s, film and television were discovered as a means to communicate the past, especially the historical experience of the Holocaust. Specific cultures of memory developed in both America and Germany. The demand to tackle the psychological and social problems stemming from the experiences during the Third Reich, advocated especially by the studentmovement, was most successfully taken up by the media. The book argues that the television miniseries *Holocaust* had a far more profound impact on the public than efforts taken by school teachers, history professors, or the institutions for political education who were officially in charge of "*Vergangenheitsbewältigung*."

Communication Researchers and Policy-making: An MIT Press Sourcebook,
Sandra Braman, ed., MIT Press, Paperback, September 2003. 576 pages. Biblio. $44.95. ISBN: 026252340X.

As the global information infrastructure evolves, the field of communication has the opportunity to renew itself while addressing the urgent policy need for new ways of thinking and new data to think about. *Communication Researchers and Policy-making* examines diverse relationships between the communication research and policy communities over more than a century and the issues that arise out of those interactions. The book provides primary material in the form of reports on such relationships spanning time periods, subject matter, policy issues, decision-making venues, and governments. The essays range from (on one hand) historical pieces on the importance of communication research since the beginning of systematic policy analysis and on the various roles that researchers can play to (on the other hand) contemporary analyses of contributions of research to policy debates over network design and access, media violence, and advertising fraud. Substantial interstitial essays by the editor explore the impact of the policy context on communication theories and research practices, relationships between researchers and their institutional homes, the role of communication researchers as public intellectuals, and ways to maximize the impact of communication research on policy-making during this period of infrastructural transformation. The book includes an extensive bibliography.



The German cable ship "Faraday," designed by the Siemens brothers and built 1873-4, laid a transatlantic telegraph cable from Ireland to the United States.

New Book Releases (continued)

Communications: An International History of the Formative Years, Russell Burns, IEE Publishing, November 2003. 560 pages. Diagrams, tables, graphs, bibliog, index. $95.00. ISBN: 0863413277.

The history of communications is extensive. This book explains how communications evolved from the time of Aeschylus's Agamemnon (485BC) to circa 1940. It discusses the essential technical, political, social, and economic factors that have enabled modern communications to evolve from early primitive stages of development. Considerable effort has been taken to present the views of scientists and engineers, newspaper reporters and editors, cartoonists and others, so that the progress of communications is seen from the perspective of the times and not solely from the standpoint of a later generation. Many hundreds of references to primary and secondary sources have been provided and the text contains many diagrams, photographs, and tables of data. The table of contents is available at: http://www.iee.org/Publish/Books/HistTech/index.cfm?book=HT032

Educational Television: Proceedings of a European Conference (Communication Research and Broadcasting, No. 12), Manfred Meyer, ed., Internationales Zentralinstitut Für Das Jugend- Und Bildungsfernsehen. Harvill Press (Random House), September 2003; Previously published: Luton: John Libbey Media 1997. 260 pages. $38.95. ISBN: 1860205283.

What do people want to see in the way of educational programs on television, and what do they actually get? What kinds of programs attract and interest an audience large enough to justify the considerable sums often invested to produce high quality factual and educational programming? These were some of the questions discussed at an international conference organized in 1996 by the Internationales Zentralinstitut für das Jugend- und Bildungsfernsehen (IZI), an information and documentation center attached to the Bavarian Broadcasting Corporation in Munich.

This volume contains most of the papers presented at the conference, thus providing information on program projects from the UK (BBC, Channel 4), France (La Cinquième, ARTE), Germany (ZDF, BR), Denmark, Finland, Italy, and the Netherlands. Questions of audience and communication research are raised throughout. For a complete table of contents, visit: http://www.br-online.de/jugend/izi/english/e-com_2.htm

The Function of Newspapers in Society: A Global Perspective, Shannon E. Martin, David A. Copeland, eds., Praeger Publishers, June 2003. 192 pages. Figures, tables, index. $64.95. ISBN: 0275973980.

The Function of Newspapers in Society reviews the histories and uses of newspapers from a global perspective and finds that newspapers are an integral part of any successful society. The demise of the newspaper has long been predicted, yet newspapers continue to survive globally despite competition from radio, television, and now the Internet, because they serve core social functions in successful cultures. Initial chapters of this book provide an overview of the development of modern newspapers. Subsequent chapters examine particular societies and geographic regions to see what common traits exist among the uses and forms of newspapers and those artifacts that carry the name "newspaper" but do not meet the commonly accepted definition. The conclusion suggests that newspapers are of such core value to a successful society that a timely and easily accessible news product will succeed despite, or perhaps because of, changes in reading habits and technology.

The Gilded Age Press, 1865-1900, Ted Curtis Smythe, Greenwood Publishing Group, August 2003. $79.95. ISBN: 0313300801.

American newspapers redefined journalism after the Civil War by breaking away from the editorial and financial control of the Democratic and Republican parties. Smythe chronicles the rise of the New Journalism, where pegging newspaper sales to market forces was the cost of editorial independence. Successful papers in post-bellum America thrived by catering to a mass audience, which increased their circulations and raised their advertising revenues. Still active politically, independent editors now sought to influence their readers' opinions themselves rather than serve as conduits for the party line.

New Book Releases (continued)

Morality and the Mail in Nineteenth-Century America, Wayne E. Fuller, University of Illinois Press, June 2003. 264 pages. $39.95. ISBN: 0252028120.

Morality and the Mail in Nineteenth-Century America explores the evolution of postal innovations that sparked a communication revolution in nineteenth-century America. Fuller examines how evangelical Protestants, the nation's dominant religious group, struggled against those transformations in American society that they believed threatened to paganize the Christian nation they were determined to save. Drawing on House and Senate documents, Postmasters General reports, and the Congressional Record, as well as sermons, speeches, and articles from numerous religious and secular periodicals, Fuller illuminates the problems the changed postal system posed for evangelicals, from Sunday mail delivery and Sunday newspapers to an avalanche of unseemly material brought into American homes via improved mail service and reduced postage prices. Along the way, Fuller offers new perspectives on the church and state controversy in the United States as well as on publishing, politics, birth control, the lottery, censorship, Congress' postal power, and the waning of evangelical Protestant influence.

New Media, 1740-1915, Lisa Gitelman and Geoffrey B. Pingree, eds., MIT Press, April 2003. 304 pages. $34.95. ISBN: 0262072459.

Reminding us that all media were once new, this book challenges the notion that to study new media is to study exclusively today's new media. Examining a variety of media in their historic contexts, it explores those moments of transition when new media were not yet fully defined and their significance was still in flux. Examples range from familiar devices, such as the telephone and phonograph, to unfamiliar curiosities, such as the physiognotrace and the zograscope. Moving beyond the story of technological innovation, the book considers emergent media as sites of ongoing cultural exchange. It considers how habits and structures of communication can frame a collective sense of public and private and how they inform our apprehensions of the "real." By recovering different (and past) senses of media in transition, *New Media, 1740-1915* promises to deepen our historical understanding of all media and thus to sharpen our critical awareness of how they acquire their meaning and power.

Ordinary Television: Analyzing Popular TV, Frances Bonner, Sage Publications, August 2003. 240 pages. $83.95. ISBN: 0803975708.

In this book, Frances Bonner provides a distinctive angle on a key area of research and teaching across media and cultural studies—the content of television and the relations between television genres and audiences. Most previous books on television have focused on drama or news and current affairs. In other words, they tend to ignore "ordinary" television—lifestyle programs and "reality TV," just the sort of programs that increasing dominate the schedules.

In *Ordinary Television*, Frances Bonner makes a distinctive argument for regarding these disparate shows as a whole. By examining a substantial range of these programs, Bonner uncovers their shared characteristics, especially through a consideration of the dominant and disguised discourses that pervade them. In addition, the comparative nature of her study enables the author to launch a powerful critique of conventional theories in relation to the globalization of television.

The Second Information Revolution, Gerald W. Brock, Harvard University Press, September 2003. 336 pages. $39.95. ISBN: 0674011783.

We are in the midst of what Gerald Brock calls a second information revolution. Not since the advent of the telephone and telegraph in the nineteenth century has information technology changed daily life so radically. Brock traces the complex history of this revolution from its roots in World War II through the bursting bubble of the Internet economy. As he explains, the revolution sprang from an interdependent series of technological advances, entrepreneurial innovations, and changes to public policy. Innovations in radar, computers, and electronic components for defense projects translated into rapid expansion in the private sector, but some opportunities were blocked by regulatory policies. The contentious political effort to accommodate new technology, while protecting beneficiaries of the earlier regulated monopoly, eventually resulted in a regulatory structure that facilitated the explosive growth in data communications. Brock synthesizes these complex factors into a readable economic history of the wholesale transformation of the way we exchange and process information.

Table of contents available at URL:
http://www.hup.harvard.edu/contents/BROSEI_toc.html

New Book Releases (continued)

Territories of Profit: Communications, Capitalist Development, and the Innovative Enterprises of G. F. Swift and Dell Computer, Gary Fields, Stanford University Press, November 2003. 317 pages. 35 tables, 8 illustrations, 10 maps. $24.95. ISBN: 0804747229.

Territories of Profit compares Dell Computer, the dominant computer manufacturer of the late 20th century, and G. F. Swift, the leading meatpacking firm of the late 19th century, to reveal how communications revolutions in different periods enabled businesses to innovate their operations, reorganize the structure of the firm, and reshape the geography of profit-making.

War and the Media: Reporting Conflict 24/7, Daya Kishan Thussu and Des Freedman, eds., Sage Publications, 2003. xii, 266 pages, ill. $39.95. ISBN: 0761943129

This book critically examines the changing contours of media coverage of war and considers the complexity of the relationship between mass media and governments in wartime. Assessing how far the political, cultural, and professional contexts of media coverage have been affected by "9/11" and its aftermath, the volume also explores media representations of the "War on Terrorism" from regional and international perspectives, including new actors such as the Qatar-based Al-Jazeera—the pan-Arabic television network.

One key theme of the book is how new information and communication technologies influence the production, distribution, and reception of media messages. In an age of instant global communication and round-the-clock news, powerful governments have refined their public relations machinery, particularly in the way warfare is covered on television, to market their version of events effectively to their domestic as well as international viewing public.

Transnational in its intellectual scope and in perspectives, *War and the Media* includes essays from internationally known academics along with contributions from media professionals working for leading broadcasters such as BBC World and CNN.

CONTENTS:

Daya Kishan Thussu and Des Freedman, "Introduction"

PART ONE. COMMUNICATING CONFLICT IN A GLOBAL WORLD: Aijaz Ahmad, "Contextualizing Conflict: The US "War on Terrorism"; Ted Magder, "Watching What We Say: Global Communication in a Time of Fear"; Jean Seaton, "Understanding not Empathy."

PART TWO. NEW DIMENSIONS OF MANAGING CONFLICT: Frank Webster, "Information Warfare in an Age of Globalization"; John Downey and Graham Murdock, "The Counter-Revolution in Military Affairs: The Globalization of Guerilla Warfare"; Robin Brown, "Spinning the War: Political Communications, Information Operations and Public Diplomacy in the War on Terrorism"; Philip Taylor, "'We Know Where You Are:' Psychological Operations Media During Enduring Freedom."

PART THREE. REPORTING CONFLICT IN AN ERA OF 24/7 NEWS: Daya Kishan Thussu, "Live TV and Bloodless Deaths: War, Infotainment, and 24/7 News"; Greg Philo, Alison Gilmour, Susanna Rust, Etta Gaskell, and Lucy West, "Israel/Palestinian Conflict: TV News and Public Understanding"; Noureddine Miladi, "Mapping the Al-Jazeera Phenomenon."

PART FOUR. REPRESENTATIONS OF CONFLICT—9/11 AND BEYOND: Jonathan Burston, "War and the Entertainment Industries: New Research Priorities in an Era of Cyber-Patriotism"; Bruce A. Williams, "The New Media Environment, Internet Chatrooms, and Public Discourse After 9/11"; Cynthia Weber, "The Media, 'War on Terrorism,' and the Circulation of Non-Knowledge"; Jayne Rodgers, "Icons and Invisibility: Gender, Myth, 9/11."

PART FIVE. CONFLICT AND THE CULTURES OF JOURNALISM: Howard Tumber and Marina Prentoulis, "Journalists under Fire: Subcultures, Objectivity, and Emotional Literacy"; Nik Gowing, "Journalists and War: The Troubling New Tensions Post 9/11"; Kieran Baker, "Conflict and Control—Afghanistan and the 24-hour News Cycle"; Yvonne Ridley, "In the Fog of War…"; Gordon Corera, "Need for Context: The Complexity of Foreign Reporting."

HARRY LIME ON DEMOCRACY

In Italy, for thirty years, under the Borgias, they had warfare, terror, murder and bloodshed. But they produced Michelangelo, Leonardo da Vinci, and the Renaissance. In Switzerland, they had brotherly love, and they had five hundred years of democracy and peace, and what did that produce? The cuckoo clock. Harry Lime (Orson Welles), in Graham Greene's *The Third Man* (1949).

Books of Interest to Mercurians

Innovation and the Communications Revolution: From the Victorian Pioneers to Broadband Internet, John Bray, IEE Press, 2002. 336 pages. $65.00.

This book provides a fascinating account of the origins and development of the technology that has transformed telecommunications and broadcasting and created the Internet. It depicts this remarkable human achievement by identifying the key innovators whose ideas created today's world of communications, from the Victorian scientists and mathematicians to the present day engineers. Written in a highly readable style, this book shows the impact of each innovation upon today's world of communications technology, and looks to the future for the innovations to come. The author writes from a unique position as he was a principal player in the development of 20th-century telecommunications engineering.

Radio Man: The Remarkable Rise and Fall of C. O. Stanley, Mark Frankland, IEE Press, 2002. 376 pages. $39.00.

Radio Man tells the story of C. O. Stanley, the unconventional Irishman who acquired Pye Radio at the beginning of the broadcasting age. Though he started with little experience and even less money, he was to make Pye a major player in the British electronics industry—only to crash it spectacularly forty years later.

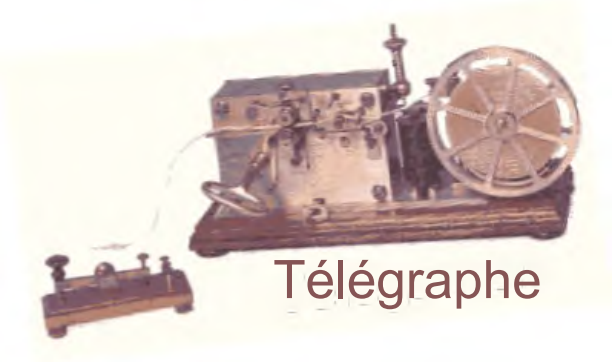
From the romance of early radio to the birth of the mobile, Stanley and Pye were players in some of the key moments of 20th-century Britain. His obsession with the infant medium of television allowed Pye to provide the equipment that put radar into planes in time for the Battle of Britain. His energy also drove Pye's pioneering work on the proximity fuse—work that would revolutionize anti-aircraft warfare—and the company's manufacture of the war's most successful army radios. In the 1950s, Stanley led the offensive against the BBC's monopoly of television in a battle that split the British establishment. When his son, John, took Pye into mobile radio, Stanley fought and defeated the bureaucrats who then controlled Britain's airwaves.

Stanley's loss of Pye in 1966 illustrated British industry's inability to withstand foreign competition. It also brought tragedy. Stanley himself escaped with honor more or less intact, but left his son to face public humiliation on his own. This revealing and meticulously researched text is written within the broad context of the political, technological, and business changes of the time, and shows how a very ambitious businessman was brought down by the very qualities that had made him so successful.

Sir Charles Wheatstone FRS 1802-1875, second edition, Brian Bowers, IEE Press, 2001. 256 pages. $59.00.

This fascinating biography celebrates the bicentenary of Wheatstone's birth and draws on information about the family business as well as letters, including correspondence with Cooke and Faraday that were not available for the first edition. Wheatstone was one of the leading electrical engineers of the mid-nineteenth century. He began his career in the family musical instrument firm where studying the workings of musical instruments gave him a taste for physics. He was responsible for the introduction of the electrical telegraph where his scientific understanding enabled him to turn it into a practical technology.

Chapters of potential interest to Mercurians are: 6: "The Velocity of Electricity;" 7: "Professor Wheatstone;" 8: "Researches in Electricity;" 9: "Electrical Measurements;" 10: "Early Telegraph;" 11: "The Practical Electric Telegraph;" 12: "Submarine Telegraphy;" 13: "The Developing Telegraph."



A History of Telegraphy, Ken Beauchamp, IEE Press, 2001. 440 pages. $95.00.

This book records the growth of telegraphy over two centuries, depicting the discoveries and ingenuity of the experimenters and engineers involved, the equipment they designed and built, and the organization, applications, and effects on society. The two main phases—cable-based techniques that began in the early 19th century and then wireless transmission in the 20th century—parallel the changes in voice and information communications seen recently. Modern methods of data compaction, coding, and encryption in today's communications all have their routes in the techniques of the telegraph pioneers.

See also the review in *Technology & Culture*, vol. 44, no. 2 (April 2003): 396-7, by Yakup Bektas.

Books of Interest to Mercurians

Competition in Telecommunications, Jean-Jacques Laffont and Jean Tirole, MIT Press, 2001. 335 pages. $16.00 (paper).

In *Competition in Telecommunications*, Jean-Jacques Laffont and Jean Tirole analyze regulatory reform and the emergence of competition in network industries using the state-of-the-art theoretical tools of industrial organization, political economy, and the economics of incentives. The book opens with background information for the reader who is unfamiliar with current issues in the telecommunications industry. The following sections focus on four central aspects of the recent deregulatory movement: the introduction of incentive regulation; one-way access; the special nature of competition in an industry requiring two-way access; and universal service, in particular, the use of engineering models to compute subsidies and the design of universal service auctions. The book concludes with a discussion of the Internet and regulatory institutions.

Wireless Nation: The Frenzied Launch of the Cellular Revolution, James B. Murray, Jr., Perseus Publishing, 2002. 352 pages. $17.00 (paper).

The wireless industry was built by a motley band of characters who, from the beginning, have fought unrelentingly against one another for a cut of the business. It's a surprising history full of winners, losers, and lucky first-time entrepreneurs who made millions. *Wireless Nation* chronicles the unique genesis of the wireless industry in America and the protagonists who brought it to life. In the mix is the inimitable Seattle entrepreneur Craig McCaw; John Kluge of Metromedia, whose deft trading in cellular properties made him the richest man in America; and also Norma Rea, the unassuming Detroit secretary whose bizarre wireless bid was tainted by scandal and a battle with a powerful newspaper chain. Murray tells the story as only an insider can, detailing the incredible circumstances that shaped and defined the coming century's most promising business.

James B. Murray, Jr. , Chairman and Managing Director of Columbia Capital, has been inside the wireless industry for more than two decades. He has brokered deals for some of the industry's biggest players, including McCaw Cellular, AT&T Wireless, Bell Atlantic, and Metromedia. Murray currently serves as a director or officer of nine telecommunications companies. Through his work, he has met and interviewed virtually every main player in the industry.

Sonic Boom: Napster, Mp3, And The New Pioneers Of Music, John Alderman, Perseus Publishing, 2002. 224 pages. $17.00 (paper).

Sonic Boom is a fascinating narrative of the controversy that's sending shock waves through the music industry. It reveals how even as the star-maker machinery of record companies remains in the hands of the old guard, innovators are finding ways to route around it. Part industry exposé and part music history, *Sonic Boom* presents a candid and entertaining account of how digital compression technologies such as MP3 have brought out the best and worst in artists and consumers alike, and how the end result can be nothing less than a cultural and economic transformation. Peopled with a sensational cast of characters that includes rock stars, music moguls, teenagers, and Internet entrepreneurs, *Sonic Boom* exposes the recording industry's plight as a fascinating microcosm of the vast cultural, ethical, and legal issues that all industries face in the information age.

Global Communications Since 1844: Geopolitics and Technology, Peter J. Hugill, Johns Hopkins University Press, 1999. 336 pages. $28.95 (paper).

In *World Trade since 1431* (Johns Hopkins University Press, 1995), Peter Hugill, professor of geography at Texas A & M University, showed how the interplay of technology, geography, and economy guided the evolution of the modern global capitalistic system over a span of 550 years. He found that the nations that developed and marketed new technologies best were the nations that rose to world power, while those that held onto outdated technologies fell behind. He also argued that major changes in transportation and communication technologies actually constituted the moments of transformation from one world economy to another.

In *Global Communications*, Hugill focuses on telecommunications, again demonstrating that the nations that best developed and marketed new technologies were the nations that rose to world power. Hugill shows how each major change in transportation and communications technologies brought about a corresponding transformation from one world economy to another. British advances in international telegraphy after the American Civil War, for example, kept that nation just ahead of the United States in the communications race, a position it held until 1945. Hugill also traces the steps that led to the British surrender of world hegemony to the United States at the end of World War II.

Books of Interest to Mercurians

The Historian, Television, and Television History, Philip Taylor and Graham Roberts, University of Luton Press, 2001. 256 pages. $34.90.

The publication of Paul Smith's *The Historian and Film* (Cambridge University Press, 1976) over a quarter of a century ago established and legitimized the academic historical study of film and also formulated the terms of debate within the field. *The Historian, Television and Television History* undertakes the same long-overdue task for television. These collected essays arose out of the path-breaking conference of the International Association of Media and History that brought together key academics and program makers from across Europe involved in "history and television." The volume therefore offers a highly productive dialogue between academics and media practitioners discussing the relationship between theory and practice from a range of different approaches and opinions.

The Historian, Television and Television History is divided into five areas covering the field of debate; archival access; five case studies; three analyses of how different TV systems have represented themselves; and a concluding section looking to the future. All the contributors are distinguished in their particular fields and include Nicholas Pronay (to whose work this book is offered as a tribute) and Pierre Sorlin, and Taylor Downing has written the foreword.

Philip Taylor is Professor of International Communications and Director of the Institute of Communications, University of Leeds. Graham Roberts is Lecturer in Communications Arts, University of Leeds.

Telecommunication Policy for the Information Age: From Monopoly to Competition, W. Gerald Brock, Harvard University Press, 1998. 336 pages. $65.00.

In this reprint of the 1994 edition, Brock develops a new theory of decentralized public decision-making and uses it to clarify the dramatic changes that have transformed the telecommunication industry from a heavily regulated monopoly to a set of market-oriented firms. He demonstrates how the decentralized decision-making process—whose apparent element of chaos has so often invited criticism—has actually made the United States a world leader in reforming telecommunication policy.

BBC History Seminar

The BBC and the University of Westminster's Communication and Media Research Institute (CAMRI) are planning a one-day seminar, possibly followed by a series of one-day seminars, on the History of the BBC. The first seminar will be on September 10, 2003, at the University of Westminster in Regents Street, London. Speakers include Lord Asa Briggs, Professor Jean Seaton, and Professor Paddy Scannell. The Seminar also will feature program-makers and archivists from the BBC, as well as workshop sessions on current research into aspects of BBC history. The organizers are hopeful that the seminar might initiate a series of similar one-day events on BBC history over the following 18 months that would look at such matters as "Charter Renewal," "The BBC and Culture," "Entertainment and Creativity," "The BBC and Political Journalism," and other topics. The aim of the seminars would be two-fold: first, to inform contemporary debates with an historical perspective, and second to open up a stronger dialogue between academic historians working on the BBC and broadcasters themselves. Each seminar would be designed to have a broad mix of representatives from the BBC as well as from universities, and presentations which address this broader audience are encouraged.

Details on how to register and attend will be posted in the next few weeks. The event is likely to be free, but numbers will be limited. In the meantime, those interested in the seminars should contact David Hendy and Anthony McNicholas, Communication and Media Research Institute, University of Westminster: Email: mcnichc@wmin.ac.uk; hendyd@wmin.ac.uk

History on the BBC

Between episodes of *Ground Force* and *Coupling*, the BBC also furnishes its audience quite a bit of history, ranging from its series on the history of Hiphop to the BBC History magazine, which covers such diverse topics as science and technology, sporting history, the industrial revolution, and the women's movement. BBC television also carries a range of historical programming, as a visit to their history programs website shows. A new addition is Fred Dibnah's *Age of Steam*, which examines the engines that powered Britain's industrial revolution. See http://www.bbc.co.uk/history/programmes/dibnah/. That site has links to information on Stephenson's Rocket, blast furnaces, spinning mills, a 3-D bridge, and such historic figures as Richard Arkwright, Thomas Newcomen, James Watt, Isambard Kingdom Brunel, and Hero of Alexandria. An unofficial history of the BBC is at: http://www.vaxxine.com/master-control/BBC/Bbc_hist.html

Conferences

Print Culture and the City
March 26th-27th 2004

The Department of Art History and Communications Studies and the Culture of Cities Project at McGill University, Montreal, invite proposals for an interdisciplinary conference on print culture and the city. The conference will seek to stimulate discussion and debate on the relationship between print culture and urban life. Papers may address a variety of forms of urban print culture: periodicals, newspapers, advertisements, flyers, books, broadsheets, calendars, posters, maps, etc.
For more information, contact:
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Renaissance Society of America
March 25-27, 2004

The 50th annual meeting of the Renaissance Society of America will feature a panel, "Medicine in the Renaissance: Printing the Ancient Legacy," sponsored by the Smithsonian Institution's National Museum of Natural History. It will take place in New York City at the Grand Hyatt Hotel on 42nd Street, March 25-27, 2004. The panel (or set of panels) will discuss the printing of ancient medical texts in the Renaissance. It is a commonplace in the history of medicine that, thanks to the printing press and the greater circulation of texts it made possible, the legacy of ancient medicine—Greek medicine, in particular—was recovered and assimilated into contemporary practice.

The proposed panel(s) will assess the importance attributed to printing and explore the material dimension of the phenomenon. Papers will deal with such questions as: what texts were available in manuscript form? What was their diffusion? Were scholars associated to the printing enterprise? If so, who were they and what kind of collaboration did they have with printers and publishers? What criteria did scholars, printers, and/or publishers use to choose texts to be printed? Were they concerned with actual medical problems? Once the decision of printing a text was made, where did editors find manuscripts to be used as sources for printed editions and, if they had several copies at their disposal, how did they make the selection? What was the editorial process? What was the print run of the printed versions and what was their diffusion? How were illustrations incorporated into the printed versions?

For more information about the meeting, visit www.r-s-a.org, and click <Conference New York 2004>.

Transformations in Politics, Culture, & Society
December 8-10, 2003

"Transformations in Politics, Culture & Society" is an inter-disciplinary and multi-disciplinary project that seeks to examine the idea of "transformation" and explore the impact of transformations in politics, culture, and society. The role of media in provoking, supporting, and representing such changes—for example, art and art history, cinema and film, literature and poetry, music, newspapers, and television and radio—also will be explored.

The conference, which will take place in Vienna, is the second in a series of annual research projects, run under the general banner "Probing the Boundaries." It aims to create working "encounter" groups between people of differing perspectives, disciplines, professions, and contexts. The project will be supported by an e-mail discussion group, threaded forum board, e-journal, and dedicated publication series.

All papers accepted for, and presented at, the conference will be published in an ISBN eBook. Selected papers accepted for and presented at the conference will be published in a hard copy themed volume. A themed hard copy volume arising from the first conference is shortly to be published.

For further details and information, visit: http://www.inter-disciplinary.net/transform/transform03cfp.htm

IEEE and IEE Conferences

Electronics—for communications, information processing, entertainment, control systems, instrumentation, and more—permeate modern economies, yet the history of electronics has received relatively little attention. The electronics industry, which grew out of the radio industry, is approaching its one-hundredth birthday, since the first of the radio tubes, the Fleming diode, was invented in 1904. To commemorate Fleming's invention and to promote greater understanding of how modern electronics developed, the IEEE History Center, the IEE History of Technology Professional Network, and University College London are organizing four coordinated events to be held in the early summer of 2004.

From 28 through 30 June, the IEEE History Center will hold a conference at Bletchley Park. Immediately following this will be two conferences, first one organized by University College London (30 June to 2 July) followed by one organized by the IEE History of Technology Professional Network (2 July to 4 July). Both will take place at University College, where an exhibition on the life and work of Fleming will be on display.

The 2004 IEEE Conference on the History of Electronics will explore "Themes and Transitions in the History of Electronics." The organizers hope to contribute to a comprehensive view of the field through several dozen papers, each of which will investigate some formative development in this 100-year-long history, such as the opening of a new area of application, or the invention of a major technique, or the gradual replacement of one dominant technique by another. An important conference feature will be the participation of people with different backgrounds—engineers, historians, museum curators, avocational historians—who will make discussions particularly fruitful. The retreat-like setting of the conference also will stimulate the exchange of ideas.

Bletchley Park, 50 miles northwest of London, was the main site of British code-breaking work in World War II. The 55-acre park-like site, today owned by a private foundation, includes a Victorian mansion, a museum, historical buildings, and a reconstructed Colossus computer, the first large-scale digital electronic computer. The conference fee will cover two-and-a-half days of historical sessions, lunches, and historical tours. Reasonably priced accommodations will be available in nearby Milton Keynes.

For more information, contact Frederik Nebeker, Senior Research Historian, IEEE History Center, 39 Union Street, New Brunswick NJ 08901-8538, or via e-mail at f.nebeker@ieee.org.

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