10.20.92

NEWSLETTER OF THE AMERICAN SOCIOLOGICAL ASSOCIATION SECTION ON

SCIENCE, KNOWLEDGE and TECHNOLOGY

Volume 5 Number 2 October 1992

AWARD WINNERS ANNOUNCED:

The Robert K. Merton Professional Award was given to Donna Haraway for her book PRIMATE VISIONS. Honorary mention was given to Leigh Star for REGIONS OF THE MIND and to Sharon Traweek for BEAMTIMES AND LIFETIMES. Both of these two latter books were nominated for consideration for the award in 1993.

The Hacker-Mullins Award for the most outstanding student paper was given to Rosa Haritos (Columbia University) for "Scientists at Work: Institutional and Cultural Contexts of Discovery." Honorary mention was given to Daniel Kleinman (University of Wisconsin) for "Groping Toward the Endless Frontier: The Politics of Postwar Research Policy in the United States."

The Awards Committee for 1992 was chaired by Chandra Mukerji and also included Judith Perrolle, Tom Gieryn, and Adele Clarke.

NOMINATIONS SOUGHT FOR NEXT YEAR'S AWARDS:

The HACKER/MULLINS STUDENT AWARD is named in honor of Sally Hacker and Nicholas Mullins, both of whom made distinguished contributions to teaching and sponsored many new students in the field. The award is given for a paper, an article, or a chapter from a dissertation (no whole dissertations please!). The award carries a monetary prize of $100, a year's membership in the section, and a place on the ASA program. Nominees for this award (and self-nominations are welcome, indeed encouraged) should send two copies of the paper, article or chapter to Peter Whalley at address below by January 1, 1993.

The ROBERT K. MERTON PROFESSIONAL AWARD: This is an award of honor and prestige. Selection for this award is based on a piece of work in the sociology of science, knowledge or technology published within the past five years. The award is based on the work, not the person (it is not a career or service award). Nominees for this award

(and, again, self-nominations are welcome and encouraged) should arrange to have three copies of the work sent to Peter Whalley at the address below by March 1, 1993. (Note: publishers are usually happy to comply with authors' requests to submit books for award consideration, but if submitting three copies is a burden please let Peter Whalley know.)

The Awards Committee for both awards in 1993 consists of Peter Whalley (Chair), Chandra Mukerji, and Anne Figert. Please send nominations and supporting documents to Peter Whalley, Department of Sociology, Loyola University Chicago, 6525 North Sheridan Road, Chicago IL 60626. Tel: 312-508-3453, e-mail ylpOprw@luccpua.

THE SCIENCE STUDIES E-MAIL BULLETIN BOARD contains news of interest for SKAT members. If you have an external electronic mail address, you can subscribe by sending an e-mail message to listerv@ucsd.edu. Your message should read only: sub sci-tech-studies. A follow-up message should confirm your subscription and news from around the science studies world should reach you.

ASA ROUNDTABLE ANNOUNCEMENT: SKAT Council would like to devote one of the roundtables at the 1993 ASA meetings in Miami to the issue of the academic job market. If you are interested in this issue, please send a list of concerns and topics to Professor Anne Figert, Dept. of Sociology and Anthropology, Loyola University Chicago, 6525 N. Sheridan Road, Chicago IL 60626.

GRADUATE STUDENTS: We would like to publish, in the next issue of the newsletter, information about DISSERTATIONS IN PROGRESS. Please send the following information to the Editor (address on page 12 below): your name, university, title of dissertation, a brief (maximum three sentences) description of the dissertation, and information on how you can be reached (by mail, phone, fax, e-mail, etc.).

SEARCHING FOR EMPLOYMENT? Places to look for job notices include ASA Employment Bulletin, Chronicle of Higher Education, History of Science Society (which posts job listings on the science-technology-studies electronic bulletin board), other ASA section newsletters, and the SWS Network News. Do you know any other places that should have been mentioned here? If so, please notify the editor.

FROM THE MINUTES OF THE BUSINESS MEETING:

OFFICERS: "The first item of business was to welcome new Council members Kathryn Henderson, Anne Figert and Dan Kleinman (Student Representative), and new officers Chair-elect Lowell Hargens and incoming Secretary-Treasurer Adele Clarke. Appreciation was also expressed to outgoing members

Mary Frank Fox, Kathy Slobin (Student Representative), Jim Petersen (Acting Secretary-Treasurer), and Judith Perrolle. Judith and Mary both served longer terms in order to allow us to alternate retirements, and special thanks for energy beyond the call of duty were expressed." Nominations Committee Chair for 1992-3 will be Kathryn Henderson. "Thanks were expressed to Rosa Haritos who served as nominations chair for the section for 1991-2."

MEMBERSHIP: Section membership stands at 409. This means we were able to have an extra session at the ASA meeting. We will lose that extra session if our membership slides below 400 due to non-renewals. Kathy Slobin has volunteered to serve as Membership Chair for one year.

SECTION ADDRESS LISTS: Adele Clarke, section Secretary-Treasurer, will make these available to section members in hard copy only in whatever format ASA provides, for $5.00.

CALL FOR PAPERS: The SKAT Program Committee invites submissions for a session on "Science, Technology and Feminist Theory." Papers should be sent to Kathryn Henderson, Dept. of Sociology, Texas A & M University, College Station, TX 77843, phone 409-845-9706 or 845-5133. We also hope to receive submissions for a session on Biomedicine and Medical Technology, but solicit papers on all topics for paper and roundtable sessions. Send submissions to Lowell Hargens, Dept. of Sociology, Ohio State University, 300 Bricker Hall, 190 N. Oval Mall, Columbus OH 43210, phone 614-292-6681. Deadline for all submissions: December 31, 1992. Please include telephone and fax numbers where you can be reached in late January. The 1993 SKAT sessions will be held on August 14, the second day of the ASA meetings.

CALL FOR PANELS AND PAPERS. Social Science History Assn., annual meeting, November 4-7, 1993, Baltimore. Please submit proposals for panels and papers by Feb. 15, 1993, to Eileen L. McDonagh, Dept. of Political Science, Meserve Hall 303, Northeastern University, Boston MA 02115, phone 617-495-8140; fax 617-495-8422, Bitnet: EMCD@NUHUB, or Philip J. Ethington, Dept. of History, Boston University, 226 Bay State Road, Boston MA 02215, phone 617-353-2551, fax 617-353-2556.

NEW PUBLICATION: entitled PERSPECTIVES ON SCIENCE: HISTORICAL, PHILOSOPHICAL, SOCIAL; edited by Joseph C. Pitt, Virginia Tech (phone 703-231-4565, fax 703-231-7826, bitnet POS@VTVM2); published by University of Chicago Press. "An interdisciplinary journal founded to give voice to a range of viewpoints on science in all historical periods..."

Capitalizing Science In Post-Socialist Eastern Europe

Henry Etzkowitz
State University of New York at Purchase

To suggest that science is a government responsibility is to risk being called a "cryptocommunist" in the post-socialist countries of Eastern Europe. Politicians typically assume that there is little or no role for government; science is to be left to the market. For scientists, increasingly left on their own to find support for their research, defining a legitimate public role for science has become a matter of survival.

The fate of science in post-socialist countries also concerns the United States. Government officials, fearful of nuclear scientists from the former Soviet Union signing on with Saddam Hussein or other aspirants to nuclear weapons technology, worry about a "brain drain" of researchers. How can scientists in sensitive areas of research, who have not emigrated to the U.S., be kept in place? U.S. government agencies and corporations, realizing a good bargain, have negotiated contracts with Russian research institutes to gain the services of dozens of highly skilled researchers for the same cost as a single American. Behind these deals is the rapidly declining government support for a huge scientific infrastructure in the former Soviet Union and Eastern Europe.

What should be done with the existing research infrastructure: abandon or reform it and if the lattter, how? During the past year science policy experts have discussed this question at international conferences in Budapest, Maratea (Italy), Berlin and Bucharest but it is also being answered by researchers' initiatives. In July, 1992, en route to a meeting on "Science and Technology Policy During the Transition Period to Market Economy" at the Romanian Academy of Sciences, I stopped in Budapest where I met with a representative of a computer network "spinoff" company. The company office was a small suite of rooms at a Computer Science Institute; the rest of the premises was occupied by the research institute.

The growing role of spinoff firms was addressed at a science policy workshop at the Hungarian Sociological Congress in June, 1991. A researcher from the USSR Academy of Sciences reported that there were thousands of such firms in the former Soviet Union and claimed they were contributing significantly to the gross national product. A Czech researcher sitting next to me whispered, "Dont believe it. They are not real spinoffs. They are just arms of the Research Institutes, organized to give them some flexibility." These two instances left me asking: What does it mean to be a spinoff firm in societies in transit between plan and market?

Taking an afternoon train from Budapest I arrived the next morning in Bucharest to participate in the Romanian-American symposium organized by Dr. Ileana Ionescu-Sisesti, Romanian Academy Commission for Science Policy Studies, and supported by the International Research & Exchanges Board (IREX). After an introductory meeting with the leaders of the Romanian Academy, my American colleagues (Professor Susan Cozzens of Rensselaer Polytechnic Institute and Alfred Teich, Director of Science Policy at the American Association for the Advancement of Science) and I were ushered into the academy's assembly hall. To open up the meeting, all members present were invited to speak on the state of science in Romania and many did.

The points made were the issues of transition: the history of denigration of scientists by the Ceausescu regime (scientists had to participate in street cleaning campaigns in the previous era), a call for a land grant act for Romania to rescue a network of

agronomy research institutes (their lands were being privatized for agricultural production) and loss of scientists to local business activities (many were becoming "sales points" for foreign technical firms or entering ordinary commerce). There was also discussion of the dearth of equipment in contrast to the plenitude of highly skilled researchers, the merits of importing technologies versus growing one's own, the wisdom of choosing a few research areas to concentrate on given a small country's limited resources and the need for a system of evaluation (but how to do it when everybody is connected; perhaps by involving Romanian scientists abroad).

This opening session was followed by lunch in the garden restaurant of the academy, "our home away from home" for the next several days. The Academy had only recently regained and restored the mansion and its garden, which had served as a hotel restaurant during most of the Ceausescu regime. The academy's president, having participated in the initial post-revolutionary regime, had retrieved some of its properties. The Academy's place in Romanian scientific life also appeared to have been restored. In the previous regime Mrs Ceausescu took the leading role herself and was even given a medal in a ceremony at the U.S. National Academy of Sciences.

The next item on our itinerary was a day and a half of visits with Research Institutes. Our hosts acknowledged that the sites we were invited to were at the high end of the institutional spectrum. My first session was a presentation by the director of the Center on Microelectronics, acompanied by his advisory board representing various participating research institutes and university departments. The center was taking over the clean room facilities of a semiconductor plant whose obsolete production was being phased out. The center's inter-disciplinary team will jointly develop new CMOS chips, considerably advanced beyond the previous production but not expected to be up to the level that could be purchased from abroad. It was expected that the chips would be advanced enough and cheap enough to be purchased locally, without being pushed aside by foreign competition.

Several of the slides shown were from a center with a similar purpose at the University of Michigan, which had been taken as a model for the Romanian center but with a key difference. In contrast to the Michigan model, the Romanian Center will undertake production itself. In the emerging Eastern European model academic departments at Polytechnics and Research Institutes begin production from their research base in addition to becoming representatives for foreign firms and consultants to surviving local industry (Interviews conducted by Dr. Katalin Balazs, a science policy expert at the Hungarian Academy of Sciences, also suggest this trend). The greatest base of industrial research expertise is in the Institutes rather than in the firms, which makes sense since the enterprises did not innovate in the past. Nor did the Institutes meaningfully assist the firms previously even though they had the expertise.

Despite talk of an ongoing "scientific-technological revolution," these research institutes and academies were unable to make a significant contribution to economic development during the socialist period. In contrast to the ideology of integration between science and production, the reality was separation. The Stalinist strategy of political control isolated segments of Eastern European societies from each other. In the academic world teaching was separated from research and scientists were located in separate research institutes (academies of science) and universities. Universities were again split into separate segments such as Economics and Philosophy; even Technical universities were sometimes split into individual units.

In the face of these divisions, there were ideological requirements for cooperation.

Under socialism, scientific research groups entered into contracts with industry to demonstrate that the intelligentsia was acting in support of the working class. However, much of industry outside of the military and space spheres was technically stagnant. There was no need to innovate; only to produce large quantities of goods. On the enterprise side, research needs were limited and connections with research institutes practically superfluous even though they were formally required. On the research side, basic research groups arrranged industrial contracts to justify themselves.

The following morning I went to the Informatics Institute where I met with the Director, Dr. Florin Gheorghe Filip. In contrast to the previous day, he simply invited questions. He had 300 people in three large buildings with modest equipment. Basic salaries were met. The Academy had brought several of the "best" Institutes under its wing when it was revived as an independent entity, with government funding, after the revolution. Given the low salaries, many of the best qualified and energetic staff were leaving to work for foreign firms or to go into business themselves. Part of the director's strategy to renew the Institute was to make alliances with foreign firms. Some of his technical people (programmers, not senior researchers) were picking up management and consulting skills on the fly. They were working with Ernst & Young, a U.S. consulting firm, assisting them in making deals with Romanian enterprises.

As opportunities arose, through inquiries from foreign firms or from ideas generated within the Institute, new small business units were also being formed. Their staff were on salary from the Institute and given workspace without being charged rent. If successful, the ownership of the new firm would be shared by the Institute and the founders of the new enterprise. Although these businesses were being called spinoff firms, they appeared to be more like "daughter and son" or "filial firms" since the ties retained with the parent enterprise were so close. Although this is changing, in the U.S. there is typically a virtually complete separation between the new and old organization at a very early stage. Reasons include conflict of interest concerns in universities about the mixing of roles, the desire to obtain control of intellectual property rights despite having signed them away to an employing firm and the ability to obtain capital to establish an independent company.

There is also the phenomenon of "intrapreneurship" in the U.S. Within large corporations, such as 3M (Minnesota Mining and Manufacturing), sub-units are sometimes designed as temporary projects to allow flexibility of action. This allows the corporation to gain some of the characteristics of an independent entrepreneurial "start-up" company. Nevertheless, the intention is for the intrapreneurial unit to remain within the firm and contribute to its R&D output. In the emerging Eastern European model, the outcome appears to be shared ownership and a continuing relationship, (initial location within the parental organization and a gradual moving out) something in between a spinoff and an intrapreneurial unit. In Eastern Europe the Institute serves as an incubator facility and venture capitalist, supplying resources and expertise to nurture the new firm. Such activities are referred to as the "underground" and have not yet been recognized as constituting a legitimate development model.

In the afternoon, I met with the director of a molecular biology research institute. Concurrently a professor at Yale, the director held research grants from the National Institutes of Health. He and his wife (also a professor at Yale) had also used their American salaries to support costs above and beyond Romanian resources. The Institute had been formed in the mid- 70's, based upon a unique agreement with the Romanian authorities to allow a dual career as an American professor and director of Romanian research institute. The director had a harrowing tale to tell about the Institute's escape

from the "urban renewal" program of the Ceausescu regime. The Institute abutted upon open land cleared in front of the dictator's new palace. A plan to clear additional land, tearing down the Institute to expand the "free fire zone" in front of the mammoth structure, was terminated by the revolution. The director was currently negotiating with French and American biotechnology firms to use his research system on the endothelial cell to test drug receptivity. He expected the analysis of drug passage to the cells to produce fundamental research results as well as provide a service in exchange for needed funds.

The next day was devoted to presentations by the U.S. team which also included an economist from the World Bank. The underlying agenda was to produce a legitimating document for a Romanian Science Foundation, modeled on the U.S. National Science Foundation (NSF). My initial two colleagues provided the materials for this purpose: Susan Cozzens presented a "keystone" model in which basic research was central to the research enterprise and Al Teich drew out lessons from U.S. policy errors. I discussed attempts by U.S. state governments and the NSF to recreate the union of basic and applied researchers, users of products and industrial producers, experienced in the World War II "Rad Lab" for radar development at MIT. The growth of academic-industry relations in the U.S. disconcerted many in the audience due to its surface similarity to the failed science policy of the Ceausescu era. In that regime, with science subordinated to a stagnant industrial base, technology transfer was meaningless.

Given this history, academic-industry relations were taken to be pro-communist. Ironically, in the U.S. linking universities with industry is often taken to be pro-capitalist. Many Romanian research institutes are rapidly forming links with industry. But some scientists are not ready to announce these links even to their colleagues. Common to basic researchers everywhere, the scientists of the Romanian Academy would like to get as much funds with as few strings attached as possible. At present, salaries are low so it doesn't take much to support people but that is changing. In the future, they will likely find that they need multiple justifications and funding sources to support more than a very few Institutes, drastically reduced in size.

At the post-meeting news conference, the reporters asked only one question of the visiting Americans. Very much to the surprise of my colleagues all they wanted to know was: "What can science do for the Romanian economy?" In response, I discussed the emerging underground of filial firms. After the press conference the Yale professor/ Institute director asked me what the reporters had asked and when I told him he said. "But what can the Romanian economy do for science?" Perhaps the answer is that as scientists enter the world of business they will start firms that will interact with the Research Institutes. With such partners, the large and currently rather isolated scientific infrastructures that Romania and other Eastern European countries have inherited from their previous regimes, would have a new base of support and, through their help to the economy, a better justification for public support.

In Eastern Europe it is widely, but by no means universally, recognized that a transition to a new relationship between science and society is necessary. In the U.S. the old "social contract" of the post-war era in which basic research was viewed as an endless frontier, with a trickle down effect into the economy, has frayed. Despite strictures against industrial policy, the need for government to play a direct role in infusing industry with new technology has led to discusssion of a new role for the NSF as an innovation agency: mediating among state programs, industry consortia and university research groups and centers. It is an irony of history that some Eastern Europeans are taken by our old science policy model even as we must move beyond it.

SOME RECENT (1991-2) WORKS BY SKAT MEMBERS

Altimore, Michael, "The Social Construction of a Scientific Myth: Pornography and Violence," JOURNAL OF COMMUNICATION INQUIRY, 15(1):117-133 (1991)

Bourque, M. L. and Howard Garrison, THE LEVELS OF MATHEMATICS ACHIEVEMENT: INITIAL PERFORMANCE STANDARDS FOR THE 1990 NAEP MATHEMATICS ASSESSMENT (Washington: Government Printing Office, 1991)

Clark, Burton R., co-senior editor (with Guy Neave) of ENCYCLOPEDIA OF HIGHER EDUCATION, four volumes, Pergamon Press, 1992

Coopersmith, Jonathan, THE ELECTRIFICATION OF RUSSIA, 1880-1926, Cornell, 1992

Crane, Diana, and Henry Small, "American Sociology Since the Seventies: The Emerging Identity Crisis in the Discipline," in M. Janowitz and T. Halliday (eds.), SOCIOLOGY AND ITS PUBLICS, Chicago: Univ. of Chicago Press, 1992

Dassbach, Carl H. A., "The Origins of Fordism: The Introduction of Mass Production and the Five Dollar Wage,' CRITICAL SOCIOLOGY, 18, 1, spring 1991, 77-92

Dassbach, Carl H. A., "B-Phases and the Relocation of Production Processes: The American Automobile Industry in the 1920s and the Japanese Automobile Industry in the 1980s, POLITICAL ECONOMY OF THE WORLD SYSTEM CONFERENCE, 1992

Dunlap, Riley E., "Trends in Public Opinion Toward Environmental Issues: 1965-1990, SOCIETY AND NATURAL RESOURCES 4 (July-Sep. 1991):285-312

Dunlap, Riley E., "Public Opinion in the 1980s: Clear Consensus, Ambiguous Commitment", ENVIRONMENT 33 (Oct. 1991):10-15, 32-37

Dunlap, Riley E., "The Polls-Poll Trends: Environmental Problems and Protection," PUBLIC OPINION QUARTERLY, 55 (Winter, 1991):713-734 (with Rik Scarce)

Dunlap, Riley E., and Angela G. Mertig, eds., AMERICAN ENVIRONMENTALISM: THE U.S. ENVIRONMENTAL MOVEMENT, 1970-1990 (Washington: Taylor and Francis, 1992)

Dunlop, Charles, and Rob Kling, eds., COMPUTERIZATION AND CONTROVERSY: VALUE CONFLICTS AND SOCIAL CHOICES, (Boston: Academic Press, 1991)

Eisenberg, Anne F., "Perspectives on Control: Ob/Gyn Physicians and Reproductive Technologies," Southern Sociological Association, April 1992

El Badry, Samia, "Driving Into the Nineties With Intelligent Vehicle Highway Systems: A Look At Population Congestion and Technology," AMERICAN DEMOGRAPHICS (Sep. 1992)

El Badry, Samia, "Telecommunications and Social Change: A Look at How Rapid Changes in Communications Are Influencing Our Lifestyles," Consumer Conference, June 1992

El Badry, Samia, "Using Demographic Information to Shape Research and Development for Strategic Advantage," AMERICAN DEMOGRAPHICS, June 1992

El Badry, Samia, "Integrating Demographic Information Into Your Technology Forecast: Using Appropriate Technology in Developing Areas," FUTURES FORUM 1992

El Badry, Samia, "The Impact of Technological Developments on the Work Environment: Telecommunicating and the Changing Role of Women," FUTURES FORUM, 1991

El Badry, Samia, see Kennedy Vanston

Etzkowitz, Henry, "Individual Investigators and their Research Groups," MINERVA, Spring 1992, pp. 28-50

Etzkowitz, Henry, "Academic-Industry Relations: An International Perspective," PHYSICS WORLD, Dec. 1991

Etzkowitz, Henry, "Redesigning Solomon's House: The University and the Internationalization of Science and Business," SOCIOLOGY OF SCIENCES YEARBOOK 1992

Etzkowitz, Henry, "Athena Unbound: Barriers to Women in Academic Science and Engineering," SCIENCE AND PUBLIC POLICY, June 1992

Etzkowitz, Henry, and Maurice N. Richter, Jr., "Technology and Society," ENCYCLOPEDIA OF SOCIOLOGY, Macmillan (New York, 1992), v. 4, 2163-2167

Fox, Mary Frank, and Glenn Firebaugh, "Confidence in Science: The Gender Gap," SOCIAL SCIENCE QUARTERLY 73 (March 1992), 101-113

Fox, Mary Frank and Vincent Ferri, "Women, Men and Their Attributions for Success in Academe," SOCIAL PSYCHOLOGY QUARTERLY 55 (Sep. 1992)

Fox, Mary Frank, "Research, Teaching, and Publication Productivity: Mutuality vs Competition in Academia," SOCIOLOGY OF EDUCATION 65 (Sep. 1992)

Fox, Mary Frank, "Gender, Environmental Milieu, and Productivity in Science," in THE OUTER CIRCLE: WOMEN IN THE SCIENTIFIC COMMUNITY, ed. by H. Zuckerman, J. Cole, and J. Bruer (New York: Norton, 1991)

Fox, Mary Frank, "Research Productivity and the Environmental Context," in T. Whiston and R. Geiger, eds., RESEARCH AND HIGHER EDUCATION: THE UNITED KINGDOM AND THE UNITED STATES, Buckingham, England: Society for Research into Higher Education and University Press, 1992

Fuchs, Stephan, THE PROFESSIONAL QUEST FOR TRUTH: A SOCIAL THEORY OF SCIENCE AND KNOWLEDGE, (Albany: SUNY Press, 1992)

Garrison, Howard, S. Herman, and J. Lipton, "Measuring Characteristics of Scientific Research: A Comparison of Bibliographic and Survey Data," SCIENTOMETRICS 24 (June 1992)

Garrison, Howard, S. Herman, and J. Lipton, "Collaborative Relationships in Dental Materials: Measuring the Volume and the Outcomes," EVALUATION RESEARCH 16 (April 1992)

Garrison, Howard, S, Herman, and J. Lipton, "International Distribution of Dental Materials Publications and Patents," DENTAL MATERIALS, 8, Jan. 1992

Garrison, Howard, see M. L. Bourque

Grahame, Peter R., "Watching Whale-Watching: The Social Organization of Observation in Whale Watch Tours and Cetacean Field Research," HUMANISTIC SOCIOLOGY ASSOCIATION, Ottawa: Oct. 1991

Grahame, Peter R., "Visualizing Whales Through Talk and Text," CENTER FOR LITERARY AND CULTURAL STUDIES, Harvard University, Feb. 1992

Kelley, Maryellen R. and Harvey Brooks, "The Comparative Role of Large and Small Firms in the Diffusion of NC and CNC Machine Tool Technologies," in Robert U. Ayres and Bill Haywood, eds., THE DIFFUSION OF CIM TECHNOLOGIES: MODELS, CASE STUDIES AND FORECASTS, Vienna: International Institute for Applied Systems Analysis, 1992

Kelley, Maryellen R., and Bennett Harrison, "Unions, Technology and Labor-Management Cooperation", in UNIONS AND ECONOMIC COMPETITIVENESS, Lawrence Mishel and Paula B. Voos, eds (New York: M. E. Sharpe, 1992)

Kelley, Maryellen R., and Harvey Brooks, "External Learning Opportunities and the Diffusion of Process Innovations to Small Firms: The Case of Programmable Automation," TECHNOLOGICAL FORECASTING AND SOCIAL CHANGE, 39 (April 1991), pp. 103-125

Kling, Rob, "Computerization and Social Transformations," SCIENCE, TECHNOLOGY AND HUMAN VALUES 16 (3) Summer 1991: 342-367

Kling, Rob, see Charles Dunlop

Kulis, Stephen and Karen Miller-Loessi, "Organizational Dynamics and Gender Equity: The Case of Sociology Departments in the Pacific Region," WORK AND OCCUPATIONS, 19, May 1992, 157-183

Kulis, Stephen and Karen Miller-Loessi, "Organizations, Labor Markets, and Gender Segregation in Academic Sociology," SOCIOLOGICAL PERSPECTIVES: 35 Spring 1992

Lieberman, Leonard, Raymond E. Hampton, Alice Littlefield and Glen Hallead, "Race in Biology and Anthropology: A Study of College Texts and Professors," JOURNAL OF RESEARCH IN SCIENCE TEACHING 29(3):301-321, 1992

Lipton, J., see Howard Garrison

Lieberman, Leonard, "Gender and the Social Deconstruction of the Race Concept," American Anthropological Assn., 1992

Peluso, Nancy Lee, RICH FORESTS, POOR PEOPLE: RESOURCE CONTROL AND RESISTANCE IN JAVA. Univ. of California Press, 1992

Peluso, Nancy Lee, "The Ironwood Problem", CONSERVATION BIOLOGY, June 1992, 1-20

Richter, Maurice N., Jr., "Evolution: Biological, Social, Cultural,", ENCYCLOPEDIA OF SOCIOLOGY, Macmillan (New York, 1992), v. 2, 603-606

Richter, Maurice N. Jr., "After Forty-five Years: Ogburn's Predictions Concerning Aviation Re-examined," TECHNOLOGY IN SOCIETY, 1991, 13, 317-325

Richter, Maurice N., Jr., "Academic-Industrial Relations in China and America," paper presented to SOCIETY FOR SOCIAL STUDIES OF SCIENCE, August 1992

Richter, Maurice N. Jr., see Henry Etzkowitz

Star, Susan Leigh, "Layered Space, Formal Representations and Long-Distance Control: The Politics of Information,"

FUNDAMENTA SCIENTAE, v. 10:2, pp. 125-154, 1989 (appeared 1991)

Star, Susan Leigh, "Power, Technology and the Phenomenology of Conventions: On Being Allergic to Onions," in J. Law, ed., A SOCIOLOGY OF MONSTERS: ESSAYS ON POWER, TECHNOLOGY AND DOMINATION, London: Routledge 1991

Vanston, Kennedy, Samia El Badry, and Lux, COMPUTER-BASED IMAGING AND TELECOMMUNICATIONS: FORECASTS OF MARKETS AND TECHNOLOGIES (Austin: Technology Futures, 1991)

Young, T. R., "Change and Chaos Theory," SOCIAL SCIENCE JOURNAL 28(3), fall 1992

Young, T.R. "Chaos Theory and Symbolic Interaction," JOURNAL OF SYMBOLIC INTERACTION, 14(3), fall 1992

Young, T.R., "Chaos and Crime: From Criminal Justice to Social Justice, THE CRITICAL CRIMINOLOGIST, v.3 no. 2, summer 1992

Young, T.R., "Chaos and Crime: The ABCs of Crime," THE CRITICAL CRIMINOLOGIST, v. 3 no. 3, fall 1992

Young, T.R. "The Archaeology of Human Knowledge: Premodern, Modern and Postmodern Missions and Methods for the Knowledge Process," THE MICHIGAN SOCIOLOGIST, fall 1992

FROM THE EDITOR: Please send your contributions and suggestions to Professor Maurice Richter, SKAT Editor, Sociology Dept., SUNY-Albany, 1400 Washington Ave., Albany, New York 12222; office phone 518-442-4675, home phone 518-869-6720, fax 518-442-4936, E-mail MR274@ALBNYVMS.BITNET.

SKAT OFFICERS:

Chair: Susan Cozzens, Science and Technology Studies, Rensselaer Polytechnic Institute, Troy, New York 12180, phone 518-276-6598 or 301-949-6345, fax 518-276-4871, E-mail USERFP2L@RPITSMTS

Chair-elect: Lowell Hargens, Ohio State University

Secretary-Treasurer: Adele Clarke, University of California, San Francisco

Council Members: Anne Figert, Joan Fujimura (Harvard University), Rosa Haritos (Columbia University), Kathryn Henderson,(Texas A & M University) Dan Kleinman (University of Wisconsin, Student Representative), Chandra Mukerji (University of California at La Jolla), Peter Whalley (Loyola University)