UC Berkeley Anthropology Faculty Publications

Title

Oikos/Anthropos: Rationality, Technology, Infrastructure

Permalink https://escholarship.org/uc/item/7zj3815z

Journal Current Anthropology, 44(3)

Author Ong, Aihwa

Publication Date 2003-06-01

Peer reviewed

Volume 44, Number 3, June 2003 | 421

en los albores del Paleolítico superior. Munibe (Antropología-Arkeologia) 52.

- BRACE, C. L. 1964. The fate of the "classic" Neanderthals: A consideration of hominid catastrophism. CURRENT ANTHROPOL-OGY 5:3-43.
- D'ERRICO, FRANCESCO, JOÃO ZILHÃO, MICHÈLE JU-LIEN, DOMINIQUE BAFFIER, AND JACQUES PELE-GRIN. 1998. Neandertal acculturation in Western Europe? A critical review of the evidence and its interpretation. CURRENT ANTHROPOLOGY 39:SI-S44.
- KUHN, STEVEN, MARY C. STINER, DAVID S. REESE, AND ERKSIN GÜLEÇ. 2001. Ornaments of the earliest Upper Paleolithic: New insights from the Levant. Proceedings of the National Academy of Sciences, U.S.A. 98:7641-46.
- LAPLACE, GEORGES. 1966a. Les niveaux castelperronien, protoaurignacien et aurignaciens de la grotte Gatzarria à Suhare, en Pays Basque. *Quartär* 17:117-40.
- MELLARS, PAUL, MARCEL OTTE, AND LAWRENCE G. STRAUS. 1999. The Neanderthal problem continued. CURRENT ANTHROPOLOGY 40:341-64.
- MONTES, RAMON, AND JUAN SANGUINO. 2001. La cueva de El Pendo: Actuaciones arqueológicas 1994–2000. Santander: Gobierno de Cantabria.
- SÁENZ DE BURUAGA, ANDONI. 1991. El Paleolítico superior de la cueva de Gatzarria (Zuberoa, País Vasco). Veleia (Anejos series maior) 6.
- STRAUS, LAWRENCE G. 1986. Late Würm adaptive systems in Cantabrian Spain: The case of eastern Asturias. *Journal of Anthropological Archaeology* 5:330-68.
- ------. 1992. Iberia before the Iberians. Albuquerque: University of New Mexico Press.
- VITA-FINZI, C., AND E. HIGGS. 1970. Prehistoric economy in the Mount Carmel area of Palestine: Site catchment analysis. Proceedings of the Prehistoric Society 36:1-37.
- ZILHÃO, JOÃO, AND FRANCESCO D'ERRICO. 1999. The chronology and taphonomy of the earliest Aurignacian and its implications for the understanding of Neanderthal extinction. *Journal of World Prehistory* 13:1–68.

Oikos/Anthropos: Rationality, Technology, Infrastructure

STEPHEN J. COLLIER AND AIHWA ONG The Harriman Institute, 420 W. 118th St. New York, N.Y. 10027, U.S.A. (sc2093@columbia.edu)./ Department of Anthropology, University of California, Berkeley, Calif. 94720, U.S.A. 29 X 02

The workshop "Oikos/Anthropos: Rationality, Technology, Infrastructure" was convened on April 26 and 27, 2002, at New York University's Global Education Office¹ in Prague, the Czech Republic, with generous support from the Sloan Foundation's Program on the Corporation

@ 2003 by The Wenner-Gren Foundation for Anthropological Research. All rights reserved 0011-3204/2003/4403-0007\$1.00

1. We are particularly grateful to Doug Guthrie of SSRC and Jiri Pehe, Director of NYU's Prague office, for their support.

as a Social Institution, administered through the Social Science Research Council.² The workshop was organized around an emerging interdisciplinary approach to science, administration, politics, and economic organization as areas in which the forms and values of oikos and anthropos-human communities and human beings-are studied in the human sciences. The participants represented areas of vital interdisciplinary inquiry that have in recent years brought anthropologists together with scholars in geography, sociology, and social studies of science. These areas include studies of the biosciences and biomedicine, urban studies, economic sociology, social studies of finance, development studies, and the social-scientific study of modernity. The workshop's premise was that these approaches had something in common methodologically, conceptually, and theoretically and that a more explicit conversation about these commonalities would be productive.

The papers used fine-grained studies of the sciences, state bureaucracy or administration, and modern economic organization to pose questions about human beings and human communities more commonly raised in political theory or philosophy. The participants³ shared

2. We thank Andrew Lakoff and Paul Rabinow for input in formulating the workshop's organizing themes. We also thank Jennifer Collier, Ben Orlove, George Marcus, Nikolas Rose, Marilyn Strathern, and Caitlin Zaloom for comments on this report.

3. Geoffrey Bowker, Department of Communication, University of California, San Diego, "Time, Money, and Biodiversity"; Teresa Caldeira, Department of Anthropology, University of California, Irvine, "State and Urban Space in Modern Brazil: From Total Planning to Democratic Interventions" (co-written with James Holston); Lawrence Cohen, Department of Anthropology, University of California, Berkeley, "The Ethics of the Exception: Some Preliminary Frames"; Stephen Collier, The Harriman Institute, Columbia University, "Budgets and Bio-Politics in Post-Soviet Russia"; Elizabeth Dunn, Department of Geography, University of Colorado, Boulder, "Standards and Person-making in East Central Europe"; Sarah Franklin, Department of Sociology, Lancaster University, "Stem Cells R Us: Emergent Forms of Life and the Global Biological"; Susan Greenhalgh, Department of Anthropology, Irvine, "Governing by Numbers: Globalization and Population Governance in China", Andrew Lakoff, Department of Sociology, University of California, San Diego, "The Private Life of Numbers: Audit Firms and the Government of Expertise in Post-Welfare Argentina"; George Marcus, Department of Anthropology, Rice University, "Cultures of Expertise and the Management of Globalization: Toward the Re-functioning of Ethnography" (co-written with Douglas Holmes), Bill Maurer, Department of Anthropology, University of California, Irvine, "Anthropological and Accounting Knowledge in Islamic Banking and Finance: Rethinking Critical Accounts"; Vinh-Kim Nguyen, Faculty of Medicine, Immune Deficiency Treatment Centre, Montreal General Hospital, "Antiretrovirals, Biomedical Globalism, and Therapeutic Economy"; Kris Olds, Department of Geography, University of Wisconsin, Madison, "Cultures on the Brink: Re-engineering the Soul of Capitalism-on a Global Scale" (with Nigel Thrift); Aihwa Ong, Department of Anthropology, University of California, Berkeley, "Baroque Economy"; Paul Rabinow, Department of Anthropology, University of California, Berkeley, "Midst Anthropology's Problems"; Tobias Rees, Department of Anthropology, University of California, Berkeley, "From the Social to the Bio-Social: Life and Science Today"; Nikolas Rose, Department of Sociology, London School of Economics, "Biological Citizenship" (with Carlos Novas); Jeffrey Sallaz, Department of Sociology, University of California, Berkeley "Gambling with Development: The Birth of Casino Industries in South a sense that this was a form of inquiry for which, as Michael Fischer (1999: 456) has written, it seems that "traditional concepts and ways of doing things no longer work, that life is outrunning the pedagogies in which we have been trained." Consequently, though the workshop was interdisciplinary in orientation, it raised a series of questions that seem particularly relevant to anthropology: What form of inquiry is appropriate to thinking about the changing forms and values of *oikos* and *anthropos* today? How are objects of investigation constituted? What kind of "data" is gathered and how? What is the status of anthropological knowledge in domains populated not only with various kinds of "scientific" knowledge producers but with competing humanisms clamoring to make claims on scientific work?

A sense of disciplinary unrest is chronic in anthropology, and it no longer seems productive to argue for experimentation or a simple multiplication of perspectives. At the same time, it would be a step in the wrong direction to seek a single response to these questions. It does seem possible to define clusters of tools, methods, and concepts appropriate to an inquiry that one would want to call an anthropology-one among many possible anthropologies-of the present. Taking the papers presented at the workshop as a map of one such cluster, a few orientations emerged. Its central theme concerns the anthropological significance of scientific, administrative, and political rationality for the forms and values of biological and social life. It identifies the relationship between ethics—understood as both systems of values and forms of self-conduct—and rationality or technology as a fruitful nexus for anthropological inquiry. Finally, its orientation is resolutely global in two senses. First, it examines a striking diversity of empirical sites and spatial scales at which modes of rationalism, techniques of management, and ethical regimes circulate and have significant-though differential and uncertain-effects. Second, the forms that it studies are delimited not by "culture" but by mobile yet distinct and concrete frameworks of technologies and infrastructures that delimit possible objects of anthropological analysis.

OIKOS/ANTHROPOS: CONTEMPORARY FRAMES

The use of the Greek *oikos* and *anthropos* to designate a common approach to anthropological problems—What is human being? What are the forms of human community?—follows Paul Rabinow's usage in *Anthropos Today* (n.d.). As alternatives to a range of more common terms such as "society" or "economy," *oikos* and *anthropos* highlight an interest in the distinctive modern relationships among knowledge, technical rationality, and ethics in transforming and placing value on human beings and forms of social life. Most generally, oikos and anthropos identify the object of what Michel Foucault (1973) called the "human sciences," which seek to know human beings as biological individuals, populations, laborers, or social beings. They are also technical disciplines that regulate, normalize, and transform human health, human welfare, human behavior, and the conditions of human existence through rational technique. Finally, they are part of ethical practices and moral systems. Humans seek not only to improve technical means but also to use these means to reflect upon, regulate, and place value on their own conduct. Thus, marking out a position between Weber's interpretive social science and Foucault's work on governmentality and ethics, the terms oikos and anthropos signal an interest in the contingency, openness, malleability, and significance of contemporary relationships among knowledge, rational technique, ethics, and the biological, social, and cultural life of human beings.

The significance of these relationships stands at the center of many "classic" diagnoses of modernity, but the studies presented at the workshop engaged new contexts. All were connected to the heterogeneous and often contradictory transformations in governance structures, economic organization, technology, and social organization associated with the tricky but (apparently) unavoidable term "globalization." Specific processes associated with "globalization" that were studied in the papers included the global evolution of management consulting, the spread of standards regimes in finance and industrial regulation, the reform of local government, the global spread of pharmaceutical companies, the evolution of market-oriented, state-fostered developmentalism in Asia, the neoliberal reform of projects of social modernity in Latin America and postsocialist Europe, the mapping of the human genome, the emergence of new directions in research on stem cells and in brain sciences, the formation of new categories of bio-sociality, and the global spread of the organ trade. It seems to us that in focusing on the dynamic interaction between technology and ethics in these domains the papers presented at the workshop defined an approach to processes associated with "globalization" that is distinct. Economics and political science, for example, have narrowed and specified this mushy concept to define "globalized" forms and to assess whether, in fact, they are emerging. The papers presented at the workshop generally did not specify criteria for identifying "globalization" but treated it as a problem-space in which dynamic relationships between rationality and ethics are being worked out. Thus, in many papers, rationalization was characterized as a process with a certain power of abstraction and mobility, a "global" or "globalizing" force that cuts across social, national, cultural, or even biological boundaries. But the result is not a single, secular process of "rationalization," nor was the orientation of the papers characterized by a singular interest in rationality as such. Rather, science, economic organization, administration, and political rationality were seen in dynamic relationship with new

Africa and California"; Nancy Scheper-Hughes, Department of Anthropology, University of California, Berkeley, "Rotten Trade: Millennial Capitalism, Human Values, and Global Justice in Organs Trafficking"; David Stark, Department of Sociology, Columbia University, "Work, Worth, and Justice"; Nigel Thrift, School of Geographical Sciences, University of Bristol, "Cultures on the Brink" (with Kris Olds); Caitlin Zaloom, Department of Anthropology, Northwestern University, "The Discipline of the Speculator."

questions about forms of ethical action and about how values should guide the conduct of individuals, organizations, or society. These questions, finally, raise new hopes, problems, and discordances around the forms and values of human beings and human collectivities.

One proposal for a tool of inquiry for studying emerging forms in this problem-space was "assemblage," a term that has been used widely in modern aesthetic discussions and adopted in philosophy by Gilles Deleuze and others (Deleuze and Guattari 1987, Ong n.d., Rabinow 1999). An assemblage is a heterogeneous collection of elements-scientific practices, social groups, material structures, administrative routines, value systems, legal regimes, technologies of the self, and so on-that are grouped together for the purposes of inquiry. The temporality of an assemblage is emergent, oriented to the openness of the present and the multiple but definite and limited potentialities of the near future. It does not suggest an exclusive interest in "the new"; indeed, the reincorporation or preservation of old forms may be a central concern. It does, however, imply a sensitivity to what is contingent or in motion in the present without suggesting a progression to some fixed state or new structural formation. As the sociologists Lazlo Bruszt and David Stark (1998: 7, 81) have written, emergent forms suggest not a "transition from one order to another but transformation-rearrangements, reconfigurations, and recombinations that yield new interweavings of multiple social logics." Marilyn Strathern (n.d.), making a similar point, has written of forms of social change that, rather than evolving along the lines of a structure, are "inherently open-ended-can encompass diverse aims and intentions." This inherent open-endedness is the space in which it is possible to examine "the creativity and energy of social life." Although many of the papers were studying biological as well as social life, we can follow Strathern in saying that an assemblage is an object of analysis that is drawn together in a nominalistic manner and intended to highlight indeterminacy, open-endedness, creativity, energy, and discordance in the forms and values of oikos and anthropos.

Though assemblages are not associated with or understood in terms of broad structural effects, neither are they random or unstructured. Rather, they are held together and articulated by spatial forms and effects that are at once concrete and discontinuous. In organizing the workshop, we drew on two terms to try to capture the shape of assemblages: "technology" and "infrastructure." "Technology" simply designates the concrete, substantive form of instrumentally rational action, for example, budgets, accounting practices, modes of scientific research, and practices of the self. "Infrastructure" designates specific institutional, material, or social conditions through which the functioning of a certain technology, ethical regime, form of regulation, or mode of communication is either enabled or impeded. It inscribes the space and form of limited, finite, and localizable relationships and effects that occupy a certain space and that concretely link-or distinguish and divide-various objects, spaces, techniques, individuals,

and social groups. An infrastructure allows these elements to come into communication but does not necessarily organize them in terms of a common structural or logical principle. Technologies and infrastructures shape spatial forms, but they also shape problems.

Thus, one group of papers examined new problems for ethics and social administration around the emergence of new techniques or treatments in biomedicine. Cohen's paper traced the evolution of techniques of organ transplant surgery that have dramatically expanded the number of what Cohen calls "bio-available" individuals-those who can, for biological and medical but also social, cultural, or economic reasons, donate organs. In combination with what Scheper-Hughes described as a spreading infrastructure of transplant technologies, "freedom" of organ markets, and a "global scarcity of transplantable organs," the economics and the "moral economy" of the organ trade take on a distinctive spatial and institutional pattern. The trade often takes place in economic spaces whose regulation is ambiguous, weak, or actively neglected, as in Cohen's example of what he calls the "ethics of the exception" to a new law banning the organ trade in India. Similar questions around economy, regulation, health, biosciences, and the substance of biological life were raised in papers by Nguyen on the complex relationships among market forces, patent regimes, and national regulation in determining access to AIDS drugs in Africa and by Lakoff on the marketing of psychoactive drugs in Argentina.

Another group of papers discussed questions of value and ethical regimes at the level of administrative rationalities. Stark examined what, following Luc Boltanski and Laurent Thevenot, he calls "regimes of worth" (Stark 2001) through analysis of changing management strategies in a Hungarian firm. The firm served as an example of an "intermediate property form combining public ownership and private initiative"-the enterprise work partnership-in which numerous regimes exist not only for valorizing the skill sets of workers but for ethical evaluation of the behavior of partners on principles of redistribution, reciprocity, and market allocation. Similar questions concerning codification and evaluation were raised in papers that combined highly technical analysis of formal coding systems with a consideration of how these systems are articulated in heterogeneous environments. These included papers by Dunn on the application of European Union food quality and management standards in the Polish pork industry, by Maurer on the use of Western accounting standards in the world of Islamic banking, and by Bowker on "regimes of implosion" versus "regimes of particularity" for modeling species diversity.

Another group of papers examined new subject formations that emerge through interactions between specific forms of rationality and techniques of the self. Rose and Novas's paper examined the formation of communities and forms of citizenship around gene-linked disease. They traced a new " 'regime of the self' as a prudent yet enterprising individual, actively shaping his or her life course through acts of choice." This regime has both

424 CURRENT ANTHROPOLOGY

ethical and technical dimensions; it is entangled in an emergent " 'political economy of hope' . . . both a moral economy and an economy in the more traditional sense of a space involving the creation and circulation of (bio) value." The Internet serves as an essential infrastructural element in this regime, allowing communities to engage in new "projects of citizenship" that involve distinctive forms of regulation and compensation. Regimes of the self, particularly in the context of professional activity, were the subject of other papers as well. Zaloom described how bond traders constitute themselves as rational actors by separating personal concerns and "irrational" psychological reactions from their moment-tomoment buying and selling decisions. Marcus and Holmes examined the problem of rational management of society in the hypercomplex environment of "fast capitalism" through an analysis of the surprising "embodied" character of decision making by Federal Reserve chairman Alan Greenspan—"gut instinct" in the most literal sense.

Another group of papers focused on changing forms of political rationality and state administration. Caldeira and Holston, examining changing paradigms of urbanism in Brazil, discussed the replacement of "total planning" with a paradigm in which the state "acts as a manager of localized and often private interests in the cityscape" that should be "based on and foster democratic citizenship." However, in the context of neoliberal reform, deregulation, and fiscal crisis, they argue, the same reforms may also entail "the privatization of public space, spatial segregation, and social inequality." Other papers explored changing regulatory forms and administrative rationalities in a range of contexts, also stressing their uncertain effects on social change and their uncertain ethical implications for projects of government. Collier, in a study of proposals for reform of public-sector finance in post-Soviet Russia, showed how neoliberal budgetary reforms integrate Soviet definitions of social "need" in formulae for fiscal allocation. At a level of technical detail they demand that need fulfillment be balanced with fiscal prudence and allocative efficiency, creating new tensions between formal rationality and the substantive goals of public policy. Three papers on the evolution of the distinctive model of state-led developmentalism in Asia examined adjustments between social regulation and market allocation. Ong compared neoliberal strategies for developing knowledge-driven economies in Malaysia and Singapore in which efforts to create new "ecologies of expertise" by extending social and citizenship rights to knowledge workers sometimes stand in tension with ethno-national claims to citizenship. Greenhalgh described the complex relationships between Chinese population policies, often based on socialist methods of mobilization, and reforms that subject production to market principles of allocation. Olds and Thrift showed how Asian cities such as Singapore have become sites in which Western business schools and state developmental strategies work together to extend and transform a "global" capitalist management culture. Finally, Sallaz examined interactions between sovereignty, development, and exchange through a comparative analysis of the gaming industry on native lands in California and South Africa.

A final group of papers was concerned with the transformation not of the forms of oikos but of the forms of anthropos as a biological being. The processes of what Tobias Rees (2002) calls "biological modernism" make life available as an object of knowledge and manipulation—and, predictably, as an object of discord and ethical dissension—in new ways. Sarah Franklin described how stem-cell research "transforms what were formerly thought of as [cells'] inherent one-way tendencies to decline into capacities for unlimited production." Pálsson and Rabinow examined a new assemblage of bioscience, private capital, national health systems, and a national population in the Icelandic genome project and the ethical debates that emerged around it. Rees's question "What does it mean to have a brain?" pointed not to an existential problem but to concrete developments in the study of environmental influences on brain structure that raise questions concerning the relationship between cognition and humans' physical milieu.

A CRITICAL GLOBAL ANTHROPOLOGY: CONCEPTS, TOOLS, ETHOS

In emphasizing the relationship between technology or rationality and ethics against the background of "globalization," the papers presented at the workshop also provoked fruitful discussion about the central concepts of anthropological inquiry, the tools of research, and the ethos of investigation for a critical global anthropology.

One common theme at the workshop concerned the importance of new conceptual emphases in identifying generative connections among projects and new loci of interdisciplinarity. For much of the past 20 years, the dominant inclination in at least one important part of anthropological theorizing has been toward American literature departments, spawning connections that have resulted in productive conversations in areas such as cultural studies or postcolonial studies. The cluster represented at Prague was different, and the conceptual vocabulary, theoretical reference points, and standards of evaluation or intellectual adequacy seemed different as well. One common task seemed to be the consistent definition and operationalization of terms so that they can function more effectively as tools of inquiry. Examples of terms used widely at the conference but perhaps in need of clearer definition for anthropological use include technology, formal and substantive rationality, calculability, coding and commensuration, regimes of worth and regimes of valorization, knowledge/power/ ethics, life/labor/language, bio-power, bio-politics, sovereignty, apparatus, and assemblage.

These terms served as focal points for productive and, for anthropology, novel groupings of projects at the workshop. For example, a number of papers—including those by Bowker, Collier, Dunn, Maurer, Rose and Novas, and Zaloom—shared a concern with the dynamics of formal or calculative rationalities as they moved across heterogeneous substantive domains. Another productive site of connections was neoliberal governmentality, a term introduced by Michel Foucault in his reflections on liberalism and neoliberalism and explored further by Andrew Barry, Thomas Osborne, and Nikolas Rose (1996) and others. A number of papers at the workshop dealt with neoliberal technologies in diverse contexts outside a core of rich countries in the Anglo-European world. In this broader frame neoliberalism might be analyzed not as a form of governmentality—implying a specific claim of legitimacy and specific institutions of social and economic regulation-but as an abstract technology that can be used as an analytic tool for drawing connections among diverse situations and making these situations visible in new ways. The concept itself, in this sense, acted as a technology of inquiry.

A second central question in discussions at the workshop concerned the problem of raising "philosophical" problems through forms of inquiry that remain close to practices at a moment when dominant analytic categories seem incapable of capturing the specificity, difficulty, and interest of many contemporary changes. Inevitably, this concern brought into the discussion a practice of data collection that has been both definitional for anthropology and something of a sore spot: ethnography. On the one hand, many anthropologists at the workshop were engaged in a form of research that diverged from standard understandings of ethnography. Collier, Franklin, and Maurer, for example, adopted austere forms of technical analysis based on expert interviews and the study of complex technical systems that were not obviously oriented to hallmarks of ethnographic analysis such as the attempt to capture cultural difference or lived experience. On the other hand, anthropologists including Marcus and Zaloom relied heavily on ethnography to capture the indeterminacy, uncertainty, or experienced reality of modern technical professionals, and some geographers and sociologists at Prague employed "traditional" elements of ethnography in an effort to get close to experience through direct quotation and thick description. Like culture, ethnography is loose in the (academic) street, its norms and forms highly unstable, and there is no reason to lament this.

The shifting relationships between ethnography as a research practice, empirical problems, and academic disciplines confirmed the continued importance of what Holmes and Marcus call the "re-functioning of ethnography." This re-functioning will involve reflection on a range of nontraditional problems such as the challenge of studying "elite" subjects to whom access is difficult. It also requires further consideration of what Marcus (1998) has referred to as "multi-sited" ethnography or, more generally, how the definition of objects of analysis—assemblages—will be driven by nontraditional spatial forms of the phenomena under investigation, defined not by contrasting local and global structures but by examining specific infrastructures and technologies. Indeed, the papers offered a series of interesting reflections on problems of spatial form and, thus, on the space in which anthropological analysis must take place. Scheper-Hughes, for example, pointed out that because of the interaction between the dispersion of scientific technique and the exigencies of national regulatory environments, the global cities of the organ trade are vastly different from the global cities of capital. As Pálsson and Rabinow's paper showed, the global centers of population genomics-Sweden, Iceland, and Estonia-have a distinctive socio-geography that maps onto specific features of national populations and onto the forms of knowledge and management of these populations. So, interestingly, does the geography of the bioethical debate that population genomics has precipitated. Nguyen, working on AIDS in Africa, examined the spatial forms emerging from the intersection of national health policies, the international behavior of global pharmaceutical companies, nongovernmental organizations, and the biological geography of the epidemic itself. Lakoff described the changing geography of the distribution of psychoactive drugs and psychiatric treatment in Argentina as national programs of social medicine are being at least partially supplanted by an assemblage of markets, doctors, pharmaceutical companies, and database firms. Forms of epidemiological knowledge associated with social medicine are deployed in relationship not to disease rates of a general population but to prescription and use rates-in other words, to a consumption segment. In these cases and others we see the emergence of what Aihwa Ong (2000) calls "graduated sovereignties" through which regimes of economic coordination and social citizenship are differentially applied to sectors of national populations.

Faced with this diversity of research problems and scales of analysis, a critical anthropology of the present may also require further consideration, following *Writing Culture* (Clifford and Marcus 1986) and *The Predicament of Culture* (Clifford 1988), of the use *and* abuse of ethnography for life. In some cases ethnography is the right tool for the job, but undue attachment to it may impede the development of shared problems and concepts (see Collier and Lakoff 2000). The value of ethnography as a tool of inquiry can be judged only in relation to the exigencies of a specific intellectual problem. "Re-functioning," then, may make ethnography one tool among others—including comparison, historical analysis, technical analysis, and even, as Greenhalgh suggested, a reinvigorated statistical analysis.

A third and final general concern at the workshop was the ethos of inquiry appropriate to a critical anthropology. In some contemporary discussions "critical" has come to imply a positioning that intervenes in power relations, either through technical response, moral or ethical judgment, or a form of ethnographic witnessing that is itself considered to be a moral act. By contrast, most of the papers explored a certain critical *restraint*. It is not that ethical, moral, or political concerns were absent. Indeed, each paper seemed to be an analytic or critical response to changes that are broadly felt to have ethical or moral significance. But there was a sense that in these politically and morally freighted domains relations of power—or, for that matter, relations of virtue—and appropriate avenues of political, ethical, or moral response were not immediately obvious. Indeed, there was a sense that the fields of moral, ethical, or political valuation and activity are shifting along with the forms of *oikos* and *anthropos* and that these fields should themselves be a central object of inquiry.

One common analytic response in this context was to enter into politically or morally charged domains through a curious, cautious, and discerning mode of technical analysis. Thus, Franklin began her analysis of stemcell research by discussing fantastic claims about a future of biological control, on the one hand, and warnings of a slippery slope to eugenics and moral decay, on the other, that have drawn stem cells to the center of popular attention and ethical contest. However, her analytic response-unexpected, refreshing, and, given the stakes often assigned to this game, daring-was to ask soberly and in a limited way about the implications of stem-cell research for human life. The point of entry was not the politics of the embryo or a utopia (or dystopia) of biological control but the concrete technical possibilities this research opens and its effects on the new ways in which human life can be made knowable and manipulable

A second example is Bowker's examination of ecosystem science, the technical problem of modeling biodiversity, and the technico-ethical problem of preserving it. Bowker asked what happens when ecosystem scientists, often motivated by a concern for preservation and ecological health, show that the central ethical object of ecological politics-the stable ecosystem in equilibrium-is a myth. The response by scientists, he suggested, has been to seek new kinds of techno-scientific objects and new ways of describing or expressing biodiversity that may be assigned value in technological systems. Bowker's critical analysis thus clarifies relations of conflicted semiautonomy among ethical and scientific domains. Scientists may have value orientations, and they may, in their professional activity, seek to create new kinds of techno-scientific objects. It is not, however, their task to determine what is of ethical value, and the objects themselves may slip away from the ethical intentions of their creators.

Such "technical criticism"—a Weberian term (Weber 1949) we propose to designate this approach—was not the only analytic practice in evidence at the workshop, but it does seem broadly emblematic. It implies a distinct "ethical" position both in the sense of a response to ethically or morally pressing situations and in the sense of an understanding of what constitutes serious and significant inquiry. It should be understood to occupy a distinct and limited niche in what Luhmann (1998) calls contemporary ecologies of knowing. Technical critics might not place value on

contemporary changes in the forms of *oikos* and *an*thropos, invent new techno-scientific objects, or propose technical solutions. They might, however, be engaged in seeing better the specific openness and dynamism of these situations, in asking how they *are* valued, and in investigating the responses they make possible and actually engender.

References Cited

- BARRY, ANDREW, THOMAS OSBORNE, AND NIKOLAS ROSE. Editors. 1996. Foucault and practical reason: Liberalism, neo-liberalism, and rationalities of government. Chicago: University of Chicago Press.
- BRUSZT, LAZLO, AND DAVID STARK. 1998. Postsocialist pathways: Transforming politics and property in East-Central Europe. Cambridge: Cambridge University Press.
- CLIFFORD, JAMES. 1988. The predicament of culture: Twentieth-century ethnography, literature, and art. Cambridge: Harvard University Press.
- CLIFFORD, JAMES, AND GEORGE MARCUS. Editors. 1986. Writing culture: The poetics and politics of ethnography. Berkeley: University of California Press.
- COLLIER, STEPHEN J., AND ANDREW LAKOFF. 2000. Object and method in contemporary anthropology. Paper presented at the annual meeting of the American Anthropological Association, San Francisco, Calif.
- DELEUZE, GILLES, AND FELIX GUATTARI. 1987. A thousand plateaus: Capitalism and schizophrenia. Minneapolis: University of Minnesota Press.
- FISCHER, MICHAEL. 1999. Emergent forms of life: Anthropologies of late and post-modernities. Annual Review of Anthropology 28:455-78.
- FOUCAULT, MICHEL. 1973. The order of things: An archaeology of the human sciences. New York: Vintage Books.
- LUHMANN, NIKLAS. 1998. Observations on modernity. Stanford: Stanford University Press.
- MARCUS, GEORGE. 1998. Ethnography through thick and thin. Princeton: Princeton University Press.
- ONG, AIHWA. 2000. Graduated sovereignty in Southeast Asia. Theory, Culture, and Society 17:55-75.
- n.d. "Latitudes of citizenship," in People out of place: Globalization and the citizenship gap. Edited by Alyson Brysk and Gershon Shafir. New York: Routledge. In press.
- RABINOW, PAUL. 1999. French DNA: Trouble in purgatory. Chicago: University of Chicago Press.
- _____, n.d. Anthropos today. Princeton: Princeton University Press. In press.
- REES, TOBIAS. 2002. From social to biological modernism: Life and science today. MS, Department of Anthropology, University of California, Berkeley, Calif.
- STARK, DAVID. 2001. For a sociology of worth. Paper presented at the conference "The New Economy," Atlanta, Ga., April 13–14.
- STRATHERN, MARILYN. n.d. "Robust knowledge and fragile futures," in *Global rationalities, human assemblages*. Edited by Aihwa Ong and Stephen J. Collier. London: Blackwell. In preparation.
- WEBER, MAX. 1949. "Objectivity in the social sciences," in Methodology of the social sciences. Glencoe: Free Press.