

VITA: DOUGLAS R. WHITE
Professor of Anthropology and Mathematical Behavioral Science, UC-Irvine

Website: <http://eclectic.ss.uci.edu/~drwhite>
Personal data: born 1942, married, 1 child

Email: drwhite@uci.edu
Short 2/12/04

Degrees, Awards, Honorary Appointments, Fellowships

American Sociological Association, Award for Outstanding Article Publication Award from the ASA Mathematical Sociology Section, 2004.
External Faculty, Santa Fe Institute (of Science), 2004-
Visiting Fellow, Leibnitz Program, German Research Society, University of Köln 1996, 1997, 1998.
Bourse de Haute Niveau, Ministry of Research and Technology, Laboratoire d'Analyse Secondaire et des Méthodes Appliquées à la Sociologie. Paris, 1991-92.
Distinguished Senior Scientist Award, Alexander von Humboldt Foundation, 1990-92. Renewable.
Fellow, Center for Advanced Studies, Western Behavioral Science Institute, 1981-84.
Ph.D. University of Minnesota, Anthropology and Social Theory, 1969.
Predoctoral Fellow, National Institute of Mental Health, 1964-67.
Visiting Fellow, Anthropology and Mathematical Sociology, Columbia University 1965-66.
CIC Traveling Scholar, Anthropology/Mathematical Psychology, University of Michigan, 1964-65.
NSF Cooperative Fellow. University of Minnesota, 1963-64.

Teaching and Research Interests

Anthropological Theory, Mathematical and Computational Anthropology; Social Networks/Social Organization, Social Demography and Longitudinal Field Sites, Migration, Kinship and Marriage Networks; Transnational Development and Community Change, World Systems and Global Change, Social Dynamics and Complexity Theory, Urban Anthropology; Indian North America, Mesoamerica, Comparative Historical Cross-Cultural Research

Academic Positions

Professor, 1994-present. Member, Institute for Mathematical Behavioral Science. UC Irvine.
1989-present Anthropology, 1982-present, Social Networks, 1977-2000 Social Relations. UC Irvine.
1979-82. UC Irvine. 1979-89. Comparative Culture Program and School of Social Sciences.
Associate Professor, 1976-79. Comparative Culture and Social Sciences, UC Irvine.
Associate Professor, 1972-76. Departments of Anthropology and Sociology, University of Pittsburgh.
Assistant Professor, 1969-72. Department of Anthropology, University of Pittsburgh.

Administrative

Chair, 2004-, focus research group, Social Dynamics and Evolution, Institute for Mathematical Behavioral Science. UC Irvine.
Organizer, 2003-, Council on Anthropological Sciences, UCI.
Board of Directors, 1999-, Center for Computational Social Science, UCLA
Graduate Director, 1995-2004. Social Networks Ph.D. Program, UCI.
Co-organizer, 1995-99. Intercampus Graduate Curriculum: Modernity's Histories in Global Context
Executive Committee of the Academic Senate, 1994-96. Irvine Division.
Chair, 1994-96. Senate Committee on International Education, UCI.
President, 1986-90, Chair 1986-. Linkages: World Development Research Council.

Chair, 1982-83. Graduate Program in Social Networks, UCI.
Executive Committee of the Academic Senate, 1980-81. Irvine Division.
Chair, 1980-81. Academic Senate Committee on Courses.
Chair, 1980-81. Social Structure Group, University of California, Irvine.
Director and Founder, 1979-80. Focused Research Program in Social Network Analysis, UCI.
Executive Committee, 1976-78. School of Social Sciences.
Executive Committee, 1976-79. Program in Comparative Culture.

Concurrent Positions

Invited Researcher. 2001 (1 mo.). Institut National des Etudes Demographiques. Paris.
Visiting Professor. 1999-2002 (3@1 mo.). Ecole des Hautes Etudes en Sciences Sociales. Paris.
Co-Responsible Scientifique, 1998-. Scientific Workshops and Informatics. Ph.D. program in Social Spaces, Relations and Configurations. Ecole des Hautes Etudes en Sciences Sociales. Paris.
Directeur d'Etudes Associé, 1991-92. Maison des Sciences de l'Homme, Paris.
Alexander v. Humboldt Distinguished Senior Scientist Research Awardee, 1990-92. University of Köln.
Instructor, 1974. ICPSR. Research Methodology Summer Program, University of Michigan.
Visiting Associate Professor, 1974-75. University of Texas-Austin, Anthropology.
Co-Director, 1971-73. Language Attitudes Project, Finance Ministry, Irish Republic.
Research Associate, 1970. Project IMPRESS (John Kemeny), Dartmouth College.
Staff Anthropologist, 1968. Summer Seminar in Quantitative Anthropology, NSF.

National Science Foundation research grants (excl. 7 student trainee and summer school grants):

1999-2002 Predictive Social Cohesion Theory
1993-95 Network Analysis of Kinship, Social Transmission and Exchange: Cooperative Research at UCI, UNI Cologne, CNRS Paris
1988-90 w T.Scudder and E.Colson, Long-Term Dynamic Assessment of Impacts of World-System Development and Ecological Processes on Local Socioeconomic Change in the Gwembe, Zambia
1987-88 w 4 other PIs, Assessment and Planning of Cross-Cultural and Comparative Research
1986-89 w D.Smith, Large Scale Network Analysis of World Trade 1986-89
1985-87 w M.L.Burton, World Systems and Ethnological Theory
1983-85 w M.L.Burton, Labor Intensification and Female Status
1981-83 w M.L.Burton, Sexual Division of Labor
1977-79 w L.C.Freeman, Social Networks Computer Teleconference
1976-80 w H.G. Nutini, Network Analysis of Compadrazgo in Rural Tlaxcala
1968-73 w G.P. Murdock, Cross-Cultural Cumulative Coding Center

Other grants

1995-1996 w J. Lee, CalTech, Mellon Program Development Grant in Anthropology and Demography.
Dozens of other small grants for conferences, planning, social science database and computing systems

Professional

Charter Member: Society for Anthropological Sciences.
Fellow: American Anthropological Association, Society for Applied Anthropology.
Charter Member: The Classification Society-No. American Branch, Society for Cross-Cultural

Research, Int'l Network for Social Network Analysis, Society for Psychological Anthropology, Cognitive Sciences Society. Past Member: Society for General Systems Research, American Sociological Association, American Mathematical Association.
President Elect and President 1992-1993: Social Science Computing Association.
Founder and General Editor 1985-1990: World Cultures. *Editorial Boards*: Structural Analysis/ Journal of Theory and Applied Research, Social Science Computer Review, Linking Levels of Analysis (University of Michigan Press Series). *Editorial Boards, past*: Ethnology, Social Networks, Computers and the Humanities, Journal of Behavioral Economics
Member: NSF Advisory Panel, numerous Social Science committees and planning groups on data base, software development, research organization and training programs.
Conference organizer: Urban Anthropology; Natural Decision Making; Social Networks; Cross-Cultural Research; Teleconferencing; Text Analysis; Research Methods; Approaches to Unified Social Science; Longitudinal Field Studies; Scholar's Workstation; Social Science Computing.

Publications: Books

In preparation. **Analysis and Comparison in the Social Sciences using SPSS**. Douglas R. White and Andrey Korotayev.
2004 **Network Analysis and Ethnographic Problems: Process Models of a Turkish Nomad Clan** (drw & Ulla Johansen). In press. Boston, MA: Lexington Press. Distribution by AltaMira Press.
1993 **Foundations for Social and Biological Evolution** (A. Iberall, D. Wilkinson, drw). CDC Press.
1975 **Tuaraiscail: Report of the Committee on Language Attitudes Research Regarding Irish** (L.A.Brudner, drw and staff). Dublin: Government Printing Office. 5 volumes.
1972 **The Anthropology of Urban Environments** (T.Weaver, D.White, eds.). The Society for Applied Anthropology, Monograph Series, No. 11.
1969 **Cooperative Networks and Decision Making among North American Indians**. Ann Arbor, MI: Dissertation Reprints.

Edited Books and Special Issues

2002 **Networks and Complexity**: Special Issue, *Complexity* 8(1).
1998 **Kinship, Networks and Exchange** (eds.Thomas Schweizer, drw). Cambridge University Press.
1989 **Research Methods in Social Network Analysis** (eds. L.C.Freeman, drw, A.K.Romney) George Mason Press. Reprinted 1991, Transaction Press.

Selected Publications: Major Articles

2005 Ring Cohesion in Marriage and Social Networks **Mathematiques, informatique, et science humains**. Journal of the Ecole des Hautes Etudes en Science Sociales, Paris. Forthcoming: Social Networks special issue edited by Alain Degenne.
2004 Network Dynamics and Field Evolution: The Growth of Interorganizational Collaboration in the Life Sciences [Biotech industry, worldwide]. Forthcoming: **American Journal of Sociology**. Walter W. Powell, Douglas R. White, Kenneth W. Koput and Jason Owen-Smith.
2004 Douglas R. White, Walter W. Powell and Jason Owen-Smith, Embeddedness in Multiple Networks, Organization Theory and Structural Cohesion Theory. Forthcoming: **Computational and Mathematical Organization Theory** 10:95-117. Special issue on Mathematical Representations for the Analysis of Social Networks within and between Organizations, edited by Philippa Pattison and Alexander Lomi.
2004 Network Analysis, Social Dynamics and Feedback in Social Systems. **Cybernetics and Systems** 35(2-3):173-192. Special issue on Mathematical Anthropology.

- 2004 Multiple Measures of Alyawarra Kinship, Forthcoming: **Field Methods** 10(4). Special issue on Mathematical Anthropology. Woodrow W. Denham and Douglas R. White.
- 2004 Emergence, transformation and decay in pastoral nomad socio-natural systems." Forthcoming: **Emergence, Transformation and Decay in Socio-Natural Systems**, edited by Sander van der Leeuw, Uno Svedin, Tim Kohler, and Dwight Read.
- 2003 Structural Cohesion and Embeddedness: A Hierarchical Conception of Social Groups. **American Sociological Review** 68(1):1-25. James Moody, Douglas R. White.
- 2003 Ties, Weak and Strong. **Encyclopedia of Community** Vol. 4:1376-1379. Edited by Karen Christensen and David Levinson. Thousand Oaks, CA: Sage Reference.
- 2002 The Navigability of Strong Ties: Small Worlds, Tie Strength and Network Topology, **Complexity** 8(1):72-81. Douglas R. White and Michael Houseman.
2002. Conectividad Múltiple, Fronteras e Integración: Compadrazgo y Parentesco en Tlaxcala Rural (drw, Michael Schnegg and Hugo G. Nutini). *In*, Jorge Gil-Mendieta y Samuel Schmidt, eds., **Análisis de Redes: Aplicaciones en Ciencias Sociales**. pp. 41-94. Mexico, D.F.: Instituto de Investigaciones en Matemáticas Aplicadas y en Sistemas- UNAM.
- 2002 Long-term Ethnography and the Collaborative Study of Social Dynamics in a Nomadic Clan in Southeastern Turkey (drw & Ulla Johansen), pp. 81-99, *in* **Chronicling Cultures: Long-Term Field Research in Anthropology**, eds., Robert V. Kemper, Anya Peterson Royce. Altamira Press.
- 2002 Parenté Suite: Users Manual for Analysis of Kinship and Marriage Networks (drw, Patricia Skyhorse, with PGRAPH software by D.R.White), *In*, Orville V. Burton, Terence Finnegan, David Herr, eds., *Wayfarer: Charting Advances in Social Science and Humanities Computing*, CD-ROM produced by the National Center for Supercomputing Applications, Urbana, Illinois. A "seminar on a disk" updateable through the WWW, it accompanies **Computing in the Social Sciences and Humanities**, ed. Orville V. Burton. Urbana: University of Illinois Press.
- 2001 The Cohesiveness of Blocks in Social Networks: Node Connectivity and Conditional Density. Douglas R. White and Frank Harary, **Sociological Methodology** 2001 31, no. 1:305-359. Blackwell Publishers, Inc., Boston, USA and Oxford, UK.
- 2001 P-Systems: A Structural Model for Kinship Studies (Frank Harary and drw). **Connections** 24(2):22-33.
- 2000 Homomorfismos de grafos y semigrupos sobre redes de relaciones (drw & Karl Reitz) [Reprint of 1983 in translation] **Política y Sociedad** 33:149-165.
- 1999 Analyzing Large Kinship and Marriage Networks with Pgraph and Pajek (DRW, Vladimir Batajelij and Andrej Mrvar). **Social Science Computer Review** 17(3):245-274.
- 1999 Networks, Cognition and Ethnography: Thomas Schweizer Remembered. **Connections** 22:19-27
- 1999 Controlled Simulation of Marriage Systems. **Journal of Artificial Societies and Social Simulation** 2(3). <http://jasss.soc.surrey.ac.uk/2/3/5.html>
- 1998 Taking Sides: Marriage Networks and Dravidian Kinship in Lowland South America (Michael Houseman, drw) Pp. 214-243, *In*, Maurice Godelier, Thomas Trautmann and Franklin E. Tjon Sie Fat, eds., **Transformations of Kinship**, Smithsonian Institution Press.
- 1998 Network Mediation of Exchange Structures: Ambilateral Sidedness and Property Flows in Pul Eliya, Sri Lanka (Michael Houseman, drw). pp. 59-89, *In*, Thomas Schweizer and drw, eds. **Kinship, Networks and Exchange**. Cambridge University Press.
- 1998 Kinship, Property and Stratification in Rural Java: A Network Analysis (drw, Thomas Schweizer). pp. 36-58, *In*, Thomas Schweizer and drw, eds. **Kinship, Networks, and Exchange**. Cambridge University Press.

- 1997 Structural Endogamy and the graphe de parenté. **Mathématique, Informatique et sciences humaines** 137:107-125. Paris: Ecole des Hautes Etudes en Sciences Sociales.
- 1997 Class, Property and Structural Endogamy: Visualizing Networked Histories, (Lilyan Brudner, drw) **Theory and Society** 25:161-208.
- 1996 Structures réticulaires de la pratique matrimoniale (Michael Houseman, drw) **L'Homme** 139:59-85.
- 1996 Statistical Entailments and the Galois lattice, **Social Networks** 18:201-215.
- 1996 Kinship Networks and Discrete Structure Theory: Applications and Implications (drw, P.Jorion). **Social Networks** 18:267-314.
- 1996 Enfoque de redes al estudio de comunidades urbanas, **Estudios Demográficos y Urbanos** 9:303-326. Mexico City: Colegio de Mexico.
- 1994 Centrality Measures for Directed Graphs (drw, Steve Borgatti) **Social Networks** 16:335-46.
- 1993 Using Galois lattices to represent network data (L.Freeman, drw) **Sociological Methodology** 1993, 127-146.
- 1993 Spatial Levels in Cultural Organization, *In*, T.Schweizer, Margarete Schweizer and Waltraud Kokot, eds. **Handbuch der Ethnologie**, 459-88. Berlin: Reimer Verlag.
- 1992 Structure and Dynamics of the Global Economy: Network Analysis of International Trade 1965-1980 (D.Smith, drw) **Social Forces** 70:857-894.
- 1992 Representing and Analyzing Kinship: A Network Approach (drw, P.Jorion) **Current Anthropology** 33:454-462.
- 1991 World-System and Regional Linkages as Causally Implicated in Local Level Conflicts at the Ethnographic Horizon, **Zeitschrift für Ethnologie** 115:111-37.
- 1991 Regional Comparisons, Replications and Historical Network Analysis (M.Burton, drw) **Behavior Science Research** 25:55-78.
- 1991 Centrality in Valued Graphs: A measure of betweenness based on network flow (L.Freeman, S.Borgatti, drw) **Social Networks** 13:141-154.
- 1990 Sharing Anthropological Data with Peers and Third World Hosts. *In*, J.E.Sieber, ed., **Sharing Social Science Data: Advantages and Challenges**, 42-60.
- 1990 Reliability in Comparative and Ethnographic Observations: The Father-Child Example of High Inference Measures, **Journal of Quantitative Anthropology** 2:109-150.
- 1990 A Cross-Cultural Historical Analysis of Subsistence Change (C.Bradley, C.C.Moore, M.L.Burton, drw) **American Anthropologist** 92:105-115.
- 1989 Rethinking the Role Concept: Homomorphisms on Social Networks (K.P.Reitz, drw) *In*, L.C. Freeman, D.R. White, A.K.Romney, eds., **Research Methods in Social Network Analysis**, 429-88.
- 1988 The Murdock Legacy: The Ethnographic Atlas and the Search for a Method (drw, L.A.Brudner) **Behavior Science Research** 22:59-81. Special issue on George Peter Murdock: Retrospective Assessment, ed. Ward H. Goodenough.
- 1988 Rethinking Polygyny: Co-Wives, Codes, and Cultural Systems, **Current Anthropology** 29:529-558, 568-572.
- 1988 Evidence for a Long Term Process Scale for Social Change in Modern Man Settled in Place via Agriculture and Engaged in Trade and War (A.Iberall, drw) **GeoJournal** 17:311-338.Reprinted in 1993 **Foundations for Social and Biological Evolution** (A. Iberall, D. Wilkinson, drw). CDC Press.
- 1988 Cites and Fights: Material Entailment Analysis of the Eighteenth-century Chemical Revolution (drw, H.G.McCann) pp. 380-400 in S. Berkowitz, B.Wellman, eds., **Social Structures: A Network Approach**, Cambridge University Press. Reprinted 1997: Ablex Publishing Corporation.

- 1988 Causes of Polygyny: Ecology, Economy, Kinship and Warfare (drw, M.L.Burton) **American Anthropologist** 90:871-887.
- 1988 Anthropology and Computing: the Challenges of the 1990s (drw, G.F.Truex) **Social Science Computer Review** 6:481-497.
- 1987 Cross-Cultural Surveys Today (M.L.Burton, drw) **Annual Reviews of Anthropology** 1987, 16:143-160.
- 1986 Focused Ethnographic Bibliography for the Standard Cross Cultural Sample, **Behavior Science Research** 23:1-145.
- 1985 The World Cultures Database, **Advances in Computer Archaeology** 4:4-31
- 1984 Sexual Division of Labor in Agriculture (M.L.Burton, drw) **American Anthropologist** 86:568-583.
- 1984 Galton's Problem as Network Autocorrelation (M.Dow, M.L.Burton, drw, K.P.Reitz) **American Ethnologist** 11:754-770.
- 1983 Internal Replication and the Systems Concept in Non-Experimental Research (drw, R.Pesner) **Behavior Science Research** 18:26-44.
- 1983 Graph and Semigroup Homomorphisms (drw, K.P.Reitz) **Social Networks** 5:193-234.
- 1983 An Exact Significance Test for Three-Way Interaction (drw, R.Pesner, K.P.Reitz) **Behavior Science Research** 18:103-122.
- 1982 Network Autocorrelation: A Simulation Study of a Foundational Problem in Regression and Survey Research (M.Dow, M.Burton, drw) **Social Networks** 4:169-200.
- 1982 Multivariate Modeling with Interdependent Network Data (M.M.Dow, drw, M.L.Burton) **Behavior Science Research** 17:216-245.
- 1981 Sexual Division of Labor in African Agriculture: A Network Autocorrelation Analysis (drw, M.L.Burton, M.M.Dow) **American Anthropologist** 83:824-849.
- 1977 Entailment Theory and Method: A Cross-Cultural Analysis of the Sexual Division of Labor (drw, M.Burton, L.Brudner) **Behavior Science Research** 12:1-24
- 1977 Community Variations and Network Structure in the Social Functions of Compadrazgo in Rural Tlaxcala, Mexico (H.G.Nutini, drw) **Ethnology** 16:353-384
- 1977 A Model of the Division of Labor by Sex (M.Burton, drw, L.Brudner) **American Ethnologist** 4:227-251.
- 1976 National Policy Programming: A Prototype Model from Language Planning (drw, L.Brudner, A.Walters) *In*, P.R.Sanday, ed., **Anthropology and the Public Interest: Fieldwork & Theory**, 293-306.
- 1975 Process, Statistics and Anthropological Theory: An Appreciation of Harold E. Driver, **Reviews in Anthropology** 2:295-314.
- 1974 Mathematical Anthropology, *In*, J.J. Honigmann, ed. **Handbook of Social and Cultural Anthropology**, 369-446. Chicago: Rand-McNally.
- 1971 Societal Research Archives System, *In*, R.Naroll and R. Cohen, eds. **Handbook of Method in Cultural Anthropology**, 676-685.
- 1971 Natchez Class and Rank Reconsidered (drw, G.P.Murdock, R.Scaglione) **Ethnology** 10:369-88.
- 1969 Standard Cross-Cultural Sample (G.P.Murdock, drw) **Ethnology** 8:329-369.[Over 90 empirical studies by as many authors have contributed 1837 coded variables on the 186 cases of the Standard Sample].

Publications: Selected Minor Articles

- 2003 Ties, Weak and Strong, **Encyclopedia of Community**. Edited by Karen Christensen and David Levinson. Thousand Oaks, CA: Sage Reference.
- 2001 "Fast Approximation Algorithms for Finding Node-Independent Paths in Networks" (drw & M. E. J. Newman), **Santa Fe Institute Working Paper** 01-07-
- 1997 Corr-Rel: A Program for Reliability Assessment (drw, Patrick Gray) **World Cultures** 9(1):7-32.
- 1996 Social Network and Discrete Structure Analysis (drw, V.Duquenne) **Social Networks** 18:169-72.
- 1996 Jacob Marschak Lecture Abstract: The Theory of Inscribed Relations: Flows in Social Networks. **Mathematical Social Science** 30:327-8.
- 1995 George Peter Murdock. **American National Biography**.
- 1994 Fisher-B: A Program for an Exact Significance Test for Two- and Three-Way Interaction Effects. **World Cultures** 8(2): 40-43.
- 1991 Data Base Software and Data Sharing. **Cultural Anthropology Methods** 3:1-3.
- 1990 The Value-Added Electronic Journal: Experience with World Cultures. **Journal of Educational Media and Library Sciences** 27: 282-293.
- 1990 Sampling and Samples -- Five Critical Issues. **Cultural Anthropology Methods** 2:9-11.
- 1989 Questioning the Evidence for Kipsigis Wealth as Cause of Reproductive Success Rather than Polygyny as a Cause of Both Wealth and Offspring. **American Anthropologist** 91:176-9.
- 1989 Microcomputer Tools for Anthropological Research. **Development Anthropology Network** 6(2):9-16.
- 1989 Coded Data Base Software. **Cultural Anthropology Methods** 1:10-12.
- 1988 Shared Workstation Applications Project. **Current Anthropology** 29:519-520.
- 1988 Anthropological Journals in Electronic Format. **Computer Assisted Anthropology News** 3(1):2-19.
- 1988 A Reanalysis of Murdock's Model for Social Structure, Based on Optimal Scaling (J. Whiting, M.L. Burton, A.K. Romney, C.C. Moore, drw) George Peter Murdock: Retrospective Assessment. **Behavior Science Research** 22:23-40.
- 1987 Cultural Diversity Database: An Instructional and Research Module from the World Cultures Electronic Journal. **National Collegiate Software Clearinghouse**.
- 1987 Annotated Cumulative Codebook: Cultural Diversity Database. **World Cultures** 3(2).
- 1986 Sexual Division of Labor (M.L. Burton, drw). **Encyclopedia of the Social Sciences**, ed. A. Kuper, J. Kuper, pp. 206-208.
- 1986 Cross Cultural Study of Magico-Religious Practitioners: Database (M. Winkelman, drw). **World Cultures** 2(3).
- 1985 Annotated Cumulative Codebook: Standard Cross Cultural Sample, I-III (drw, M.L. Burton). **World Cultures** 1(1,2,4).
- 1984 Material Entailment Analysis. **Practicing Anthropologist** 6(2):10-11. Computer Assisted Anthropology Issue.
- 1980 A Different Approach to Structural Equivalence. **Connections** 3:16-18.
- 1979 Language Attitudes, Behavior, and Intervening Variables (L. Brudner, drw) In W.F. Mackey, J. Orenstein, eds. **Sociolinguistic Studies in Language Contact**. pp. 51-68.
- 1972 Sociological Contributions to an Urban Anthropology (drw, T. Weaver); and
- 1972 Anthropological Approaches to Urban and Complex Society (T. Weaver, drw) *In*, T. Weaver, D. White, eds. **The Anthropology of Urban Environments**, pp. 97-107 and 109-125.

1971 An Attempt to Utilize Computers in Urban Affairs Education (drw, B. Vargus). **Proceedings of the Second Annual Conference on Computers in the Undergraduate Curricula**, 365-3.

Field Research

1996-97 Nord-Pas-de-Calais, Kinship links and spatial dispersion among social elites

1993-96 Networks, House System and Migration in Rural Austria, w L.A. Brudner.

1995 Ethnographic video project - family relations in Rural Austria, w L.A. Brudner.

1995 Networks in Southern California, w Thomas Schweizer and Linton Freeman.

1976-79 Networks, Labor Force Participation and Belief Systems in Tlaxcala, Mexico.

1971-73 Networks of Irish language use, social and decision-making processes affecting language maintenance, direction of multiple level national research project involving socio-demographic analysis, survey sampling and questionnaire design, attitudinal studies, educational and institutional research in Ireland,

1968-70 Italian and Irish American Urban ethnic adaptation in Pittsburgh,

1964-65 Upper Mississippi culture and personality project,

1962 Coastal fishing economies in Veracruz,

1962 Acatlán, Veracruz, Mexico, religious and economic integration,

1961-62 Ojibwa urban adaptation in Minneapolis,

Database Development and Programmatic Research

Work on development of a standard cross-cultural sample of 186 classic ethnographic sites began in 1967 with G. P. Murdock. This database now includes temporal development and world-system impact variables in addition to cumulative codes from hundreds of contributing studies on over two thousand variables. These data, together with analytic and mapping programs that I developed, continue to be published in the World Cultures electronic journal that I founded in 1985.

Between 1976-1980, with NSF funding, I developed a database approach to the study community social networks, migration, kinship and marriage, and social change, working with Nutini and Brudner on field sites in rural Tlaxcala, Mexico.

Since 1985 I have headed a team involved in creating a series of longitudinal databases for studies of economic development and community level change in anthropological field sites, with collaborations including:

- 1) Colson and Scudder's 4 Tonga village sites in Gwembe, Zambia
- 2) Brudner and White's Feistritz village site in Carinthia, Austria,
- 3) Nutini, Brudner and White's factory and 4 village sites in Tlaxcala, Mexico, restudy by Michael Schnegg (2003)
- 4) Goodenough et al.'s Chuukese site in Micronesia, reanalyzed by Patricia Skyhorse
- 5) McCall's Rapanui (Easter Island) site in Polynesia,
- 6) Dorsey's Historic Omaha archival materials, as transcribed by Robert Barnes,
- 7) Lee's Chinese Imperial lineage archival materials,
- 8) Foster and Van Kemper's Tzintzuntzan village and migration study.
- 9) White and Le Bras, Nord-Pas-de-Calais, 19th-20th C.
- 10) Denham's Alyawarra (C. Australian) database.

Our 1986-89 NSF and Wenner-Gren awards used the first site as a test case for development of a longitudinal social demographic methodology now being carried through in other sites.

These three projects resulted in development of software that is now widely used in comparative studies (MAPTAB data visualization, entailment analysis, and autocorrelation), community-level network studies and transnational networks and flows (analysis of social positions based on regular equivalence, generalization of positional centrality measures), and the longitudinal analysis of social change (graphic visualization and analytic package for material flows and exchange mapped onto flow representations of kinship and marriage networks).

Since 1991 I have co-directed with Michael Houseman (CNRS, Paris) and Thomas Schweizer (Cologne) a team of researchers assembling longitudinal kinship and property-transmission networks from a series of anthropological field sites (those above plus, e.g., Dogon and Tuareg-Africa, Pul Eliya-Sri Lanka, numerous Amazonian groups, Tikopia and Anuta-Polynesia, Arapesh and Manus-Melanesia, Groote Eylandt-Australia), historical or demographic studies (e.g., Elites-Central America, Quebec villages, Aillier-France), plus nearly one hundred sites with longitudinal kinship and marriage networks. A series of jointly authored books (with Houseman, Schweizer) are in preparation, and utilize data from the better cases studies. Data from these studies will be contributed to the National Archives of Anthropology.

In 1996 I was invited to join as consultant the Eur-Asia project, a consortium of socio-demographic researchers from the U.S., Japan, China, Sweden, Belgium and Italy developing a standardized methodology for the study of population and household responses to short and long term stresses in economic conditions and life-event conditions.

In 1998 I was invited to participate with Maurizio Gribaudo as Co-Responsible Scientifique for Scientific Workshops and Informatics as part of a new Ph.D. program in Social Spaces, Relations and Configurations at the Ecole des Hautes Etudes en Sciences Sociales (EHESS). I continue to be an external faculty member at EHESS.

In 1999 my NSF funded project on Predictive Social Cohesion Theory consolidated what we have learned from large-scale social network analysis (including kinship and marriage networks, property and transaction flows, succession, class formation, structures of elites, etc.) in terms of a sophisticated fieldwork database system, with applications to be tested in multi-level longitudinal fieldsite ethnography carried out in dissertation-level and collaborative research. This project led to new software developed with James Moody and applications to Walter Powell's study of the biotech industry worldwide.

Since 1999 I have participated in four Working Groups at the Santa Fe Institute: Padgett's Co-Evolution of States and Markets, Crutchfield's Network Dynamics, van der Leeuw's Socioenvironmental Interaction and Lane's Social Scaling.

In 2001 I was invited to participate with Hervé Le Bras as Co-Responsible Scientifique for Scientific Workshops and Informatics in the program in Social Spaces, Relations and Configurations at the Ecole des Hautes Etudes en Sciences Sociales, where I developed a new network database on formation of the industrial elites of Nord-Pas-de-Calais in northern France.

Since 2002 I have hosted on the web some of the leading anthropological fieldsite datasets, including those of Woodrow W. Denham. From 2002 forward I have participated with Sander van der Leeuw, David Lane and Geoff West on a European Union Project, The Information Society as a Complex System. This became a Santa Fe Institute Working Group on Social Scaling in 2003.

In 2003 Chris Chase-Dunn, Peter Turchin and I submitted an NSF proposal to the Human Social Dynamics initiative for broad-scale collaborative research on macrosystem networks and dynamics, which encompasses urban dynamics, 3100BCE-present, civilizational networks, and special emphases on the Jemdet Nasr World System and 13th C AD Old World urban and trade networks and dynamics. This involved organizing thirty of the leading researchers in fields related to these research topics. The

SFI funded the Macrosystems Working group for April 2004. ISCOM funded my 13th C project with Peter Spufford on construction of a network dynamics dataset, and provided a full-time postdoctoral research assistant for this and related projects on network cohesion and dynamics. I also joined the French project TIME (Traitement Informatique des Matériaux Ethnographique, organized by Laurent Barry) where we are developing comprehensive software and databases for ethnographic research.

In 2004 we joined forces with the UCSB Center for Spatially Integrated Social Sciences and the UCI Institute of Mathematical Behavioral Sciences to resubmit our macrosystem networks and dynamics proposal to the HSD program of NSF, connecting infrastructure development of GIS, network analysis and Donald Saari's dynamical modeling techniques applied to development of new substantive research strategies and systematic database development in the social sciences.